

**Question: *Is Physical Fitness Related to Academic Achievement?***

**Response:**

Results of analyses indicate that, for Austin ISD students in grades 5 and 7, there is a small positive association between physical fitness, as measured by the Fitnessgram, and academic achievement, as measured by the Texas Assessment of Knowledge and Skills (TAKS). The Fitnessgram measures body composition, aerobic capacity, abdominal strength, upper body strength, and flexibility.

An overall Fitnessgram score, equal to the total number of standards met in the five areas assessed, was calculated. Students with missing data were excluded from analyses. The Fitnessgram scores were correlated with TAKS Reading and Mathematics scale scores. The resulting correlations were low (.20, n=8189 for reading and .15, n=8173, for math) but significant at the <.001 level.

To investigate further the relationship between fitness and achievement, TAKS mean scale scores at each level of fitness (0-5) were calculated. As shown in Figure 1, the higher the overall fitness score, the higher the scale score for reading or math<sup>1</sup>.

Figure 1: Mean Scale Scores for TAKS Reading and Mathematics at Each Level of Overall Fitnessgram Score; Spring 2006

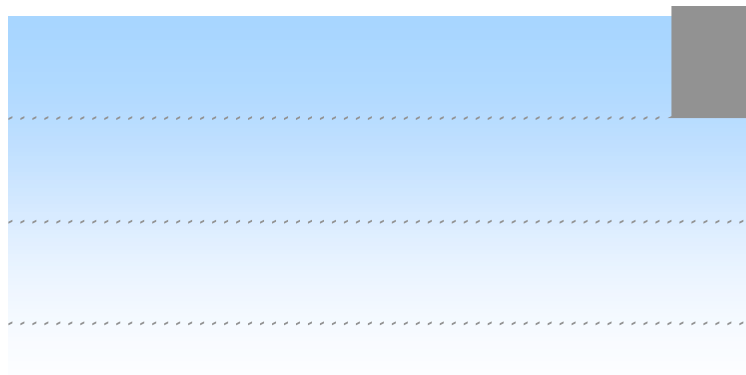
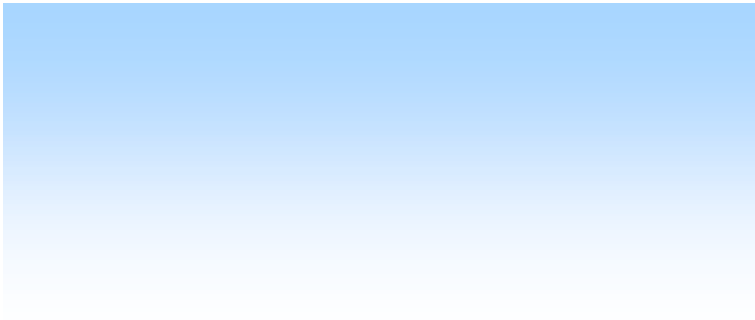


Figure 2: Mean TAKS Reading Scale Scores for Low-Income and Non-Low Income Students at Each Level of Overall Fitnessgram Score; Spring 2006



The relationship between fitness level and academic achievement for students of different

Figure 5: TAKS Mathematics Mean Scale Scores at Overall Fitnessgram Score Levels by Ethnicity<sup>3</sup>

