

**Predictability Study of ISIP Reading and STAAR Reading:**

**Prediction Bands**

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### **Abstract**

This study provided evidence that Istation's Indicators of Progress (ISIP™) Reading cut scores can predict passing scores for the State of Texas Assessments of Academic Readiness (STAAR) Reading tests. This study used ISIP Early Reading (3rd grade), ISIP Advanced Reading (4th–8th grades), and STAAR Reading tests. All data came from one district in the state of Texas and were collected in the 2014–2015 school year. There were 3,397 3rd grade students; 3,400 4th grade students; 3,556 5th grade students; 1,116 6th grade students; 730 7th grade students; and 449 8th grade students, totaling 12,648 students. Simple linear regression analysis was applied for each grade's data. Predictability “bands” were further computed by using the confidence interval (CI) approach to obtain the ISIP Reading cut score to predict passing STAAR Reading tests. Results of a simple linear regression showed that the ISIP Reading measures are highly predictive of STAAR Reading scores. The ISIP Reading cut scores to predict passing STAAR Reading tests for 2015–2016, 2016–2017, 2017–2018, 2018–2019, 2019–2020, 2020–2021, 2021–2022 Recommended Level II, and Recommended Level III standards are reported.

## Introduction

Istation's Indicators of Progress, also known as ISIP, is a sophisticated Internet- and Web-delivered computer-adaptive testing (CAT) system that provides continuous progress-monitoring (CPM) assessment in the critical domains of reading in prekindergarten through 8th grade. It is built using two-parameter Item Response Theory and driven by a fully CAT algorithm. ISIP gathers and reports frequent information about student progress in these critical domains throughout and across academic years (Patarapichayatham, Fahle, & Roden, 2013).

The purpose of ISIP is to measure reading ability and identify deficits in critical areas in order to provide continuous differentiated instruction. ISIP accomplishes this by delivering short tests, at least monthly, that target critical areas to inform instruction. It is realistic to administer ISIP assessments for an entire classroom, an entire school, and even an entire district in a single day with adequate computer resources. Student results are immediately available online for teachers and administrators, illustrating each student's past and present performance and skill growth. Teachers are alerted when students are not making adequate progress so that the instructional program can be modified before a pattern of failure becomes established (Mathes, 2011). For full information about ISIP Early Reading (for grades pre-K–3) and ISIP Advanced Reading (for grades 4–8), see Mathes (2011) and Mathes, Torgesen, and Herron (2011).

The State of Texas Assessments of Academic Readiness (STAAR) program was implemented in the state of Texas in spring 2012 and includes annual assessments for (a) reading and mathematics for grades 3 through 8, (b) writing for grades 4 and 7, (c) science for grades 5 and 8, (d) social studies for grade 8, and (e) end-of-course (EOC) assessments for English I, English II, Algebra I, biology, and US history. In spring 2016, STAAR English III and Algebra II will be available for districts to administer as optional assessments.

One of the state's goals in developing STAAR is that Texas will be among the top 10 states for graduating college-ready students by the 2019–2020 school year. The curriculum assessed on STAAR is the state-mandated curriculum, the Texas Essential Knowledge and Skills (TEKS). These standards are designed to prepare students to succeed in postsecondary opportunities and to compete globally. Within the STAAR Reading test for grades 3 through 8, three content areas are assessed: Category 1, understanding and analysis across genres; Category 2, understanding and analysis of literary texts; and Category 3, understanding and analysis of informational texts (<http://tea.texas.gov/>).

ISIP Early Reading, developed in 2006, and ISIP Advanced Reading, developed in 2010, have been delivered to more than four million students in the United States of America and in six other countries. A majority of these students are from the state of Texas and have been required to take the STAAR Reading assessment. Patarapichayatham, Fahle, and Roden (2013) studied the relationship between ISIP Reading and STAAR Reading by applying Pearson product-moment correlation analysis, multiple linear regression analysis, and multiple logistic regression for 3rd–8th grade data. They found that the ISIP Reading end-of-the-year (EOY) scores were higher than the ISIP Reading middle-of-the-year (MOY) scores on both overall scores and each sub-skill score across grades, indicating that students improved their reading ability by the end of the year. The correlations between ISIP Reading and STAAR Reading tests were very strong across grades, indicating that students who perform well on ISIP Reading are very likely to perform very well on STAAR Reading. They also found that ISIP Reading measures are highly predictive of STAAR Reading scores.

Patarapichayatham, Fahle, and Roden (2014) also proposed ISIP Reading cut scores to predict passing STAAR Reading Level II phase-in 1 standards. The cut scores were 229; 1,798;

1,844; 1,920; 1,950; and 1,949 for grades 3 through 8, respectively. The STAAR Reading Level II phase-in 1 standards were in effect for the 2011–2012, 2012–2013, 2013–2014, and 2014–2015 school years. The STAAR Reading performance standards had been at phase-in 1 for four years. The Texas Education Agency (TEA) announced that STAAR Reading Level II phase-in 2 performance standards will be used for 2015–2018, and STAAR Reading Level II phase-in 3 performance standards will be used for 2018–2021. Patarapichayatham (2015) also updated ISIP Reading cut scores for STAAR Reading Level II final standards.

Under new proposed rules from the Texas Commissioner of Education, the traditional phase-in approach (larger jumps to more rigorous performance standards every few years) is replaced with a standard progression approach from 2015–2016 through the 2021–2022 school year. Under the standard progression approach, students are expected to increase by small points every year from 2015–2016 through the 2021–2022 school year ([tea.texas.gov](http://tea.texas.gov)). The STAAR Reading performance standards are shown in Table 3. Overall, the STAAR Reading performance standards increase approximately 20 points yearly for each grade level from the 2015–2016 standards to 2021–2022 Recommended Level II standards. This means that student scores must increase about 20 points yearly in order to pass the STAAR Reading test. To be more precise, 3rd grade students need to score 1,345 in order to meet the STAAR Reading performance standards in the 2015–2016 school year but need to score 1,365 (20 more points than the previous year) in order to pass the STAAR Reading test in the 2016–2017 school year. Moreover, 3rd grade students need to score 1,386 (21 more points than the previous year) in order to pass the STAAR Reading test in the 2017–2018 school year. STAAR Reading performance standards increase 85 points from 2021–2022 Recommended Level II standards to Recommended Level III standards.

Since the traditional phase-in approach is replaced with a standard progression approach from 2015–2016 through the 2021–2022 school year, Istation needs to update the prediction bands. For this reason, this study aims to identify the ISIP Reading cut score to predict passing STAAR Reading tests. Simple linear regression results were used to obtain the prediction bands by using the confidence interval (CI) approach. ISIP Overall Reading Ability at the end of the year (EOY) scores were used as the predictor, and the STAAR Reading scale score was the outcome variable. The samples were taken from students in one district in the state of Texas.

## **Methods**

### **Measures**

Results from ISIP Early Reading for 3rd grade, ISIP Advanced Reading for 4th–8th grades, and STAAR Reading tests for 3rd–8th grades from the 2014–2015 school year were used. ISIP Overall Reading Ability EOY scores from the 2014–2015 school year and STAAR Reading scores from 2014–2015 for these same students were used. The Overall Reading Ability scores are computed from four different sub-skills: reading comprehension, spelling, vocabulary, and connected text fluency. The ISIP Reading scale scores and the STAAR Reading scale scores were used. Table 1 shows the Pearson product-moment correlation coefficients. The correlations between ISIP Reading and STAAR Reading scores were relatively high, indicating a strong relationship between ISIP Reading measures and STAAR Reading tests. The correlation coefficients were 0.737, 0.735, 0.706, 0.752, 0.549, and 0.628 for grades 3 through 8, respectively.

### **Samples**

The sample included 12,648 students from 3rd through 8th grade in one district in the state of Texas. There were 3,397 3rd grade students; 3,400 4th grade students; 3,556 5th grade students; 1,116 6th grade students; 730 7th grade students; and 449 8th grade students. The

original data file had approximately 4,000 students per grade. Due to the listwise deletion on SPSS, all missing data was deleted from an analysis. The means of STAAR Reading scores were 1,438.26; 1,509.61; 1,566.24; 1,574.71; 1,566.60; and 1,588.16 for grades 3 through 8, respectively. The means of ISIP Overall Reading Ability EOY scores were 253.00; 1,958.99; 2,036.32; 2,066.62; 2,017.96; and 2,087.84 for grades 3 through 8, respectively. The demographic variables are shown in Table 2. Approximately half of the sample was male and the other half female. Half of the sample was Hispanic, whereas the other half of the sample was all other ethnicities combined. And approximately 70 percent of the sample was economically disadvantaged students.

### **Analysis**

The purpose of this study was to determine the ISIP Reading cut scores to predict passing STAAR Reading tests for grades 3 through 8. The simple linear regression analysis was applied for each grade's data by using SPSS software version 22. The ISIP Overall Reading Ability EOY score was the predictor, and the STAAR Reading score was the outcome variable. I first ran the simple linear regression. The  $\hat{y}$  for each grade's data was computed (see Part I result). Then the confidence interval (CI) was further computed.

Prediction bands commonly arise in regression analysis. The goal of a prediction band is to cover with a prescribed probability the values of one or more future observations from the same population from which a given data set was sampled. There are two types of prediction bands: confidence interval (CI) and prediction interval (PI). A CI is used in statistical analysis to represent the uncertainty in an estimate of a curve or function of the data. The 95 percent confidence intervals enclose the area that I can be 95 percent certain contains the true curve. If I have many data points, the confidence intervals will be near the line or curve, and most of the

data will lie outside the confidence intervals. The 95 percent prediction intervals enclose the area that I expect to enclose 95 percent of future data points. They are wider than confidence bands, and they are much wider with large data sets.

The confidence interval (CI) for the average expected value of  $y$  for a given  $x^*$  is as follows:

$$E(y | x^*) = \hat{y} \pm t_{n-2}^* \sqrt{\frac{1}{n} + \frac{(x^* - \bar{x})^2}{(n-1)s_x^2}}$$

where  $s_y$  is the standard deviation of the residuals, calculated as  $s_y = \sqrt{\frac{\sum (y_i - \hat{y}_i)^2}{n-2}}$ .

Next, the ISIP Reading scores around the STAAR Reading cut point for the lower bound and the upper bound of the CI were selected. The STAAR performance standards in Table 3 are used to compute ISIP Reading cut scores to predict passing STAAR Reading tests.

## Results

### Part I: Simple Linear Regression

Simple linear regression was applied for each grade's data. The results for each grade are shown in Table 6 and reported as follows. For 3rd grade, 54.3 percent of the variance in STAAR Reading can be predicted from an EOY. The equation for predicting the STAAR Reading score is  $STAAR = 1,433.660 + 4.992 (EOY) + e$ . The intercept was 1,433.660. The STAAR Reading score was 1,434 as EOY was zero. The slope for EOY\_Overall was 4.962, indicating that the STAAR Reading score was 1,439 (1,434 + 5) as the EOY score increases 1 unit.

For 4th grade, 54.1 percent of the variance in STAAR Reading can be predicted from an EOY score. The equation for predicting the STAAR Reading score is  $STAAR = 1,504.357 + 0.579 (EOY) + e$ . The intercept was 1,504.357. The STAAR Reading score was 1,504 as EOY



was zero. The slope for EOY was 0.579, indicating that the STAAR Reading score was 1,505 (1,527 + 1) as the EOY score increases 1 unit.

For 5th grade, 49.9 percent of the variance in STAAR Reading can be predicted from an EOY score. The equation for predicting the STAAR Reading score is  $STAAR = 1,559.765 + 0.544 (EOY) + e$ . The intercept was 1,559.765. The STAAR Reading score was 1,560 as EOY was zero. The slope for EOY was 0.544, indicating that the STAAR Reading score was 1,561 (1,560 + 1) as the EOY score increases 1 unit.

For 6th grade, 56.5 percent of the variance in STAAR Reading can be predicted from an EOY score. The equation for predicting the STAAR Reading score is  $STAAR = 1,569.804 + 0.464 (EOY) + e$ . The intercept was 1,569.804. The STAAR Reading score was 1,570 as EOY was zero. The slope for EOY was 0.464, indicating that the STAAR Reading score was 1,570 (1,570 + 0) as the EOY score increases 1 unit.

For 7th grade, 30.1 percent of the variance in STAAR Reading can be predicted from an EOY score. The equation for predicting the STAAR Reading score is  $STAAR = 1,562.742 + 0.269 (EOY) + e$ . The intercept was 1,562.742. The STAAR Reading score was 1,563 as EOY was zero. The slope for EOY was 0.269, indicating that the STAAR Reading score was 1,563 (1,563 + 1) as the EOY score increases 1 unit.

For 8th grade, 39.4 percent of the variance in STAAR Reading can be predicted from an EOY score. The equation for predicting the STAAR Reading score is  $STAAR = 1,584.486 + 0.321 (EOY) + e$ . The intercept was 1,584.486. The STAAR Reading score was 1,584 as EOY was zero. The slope for EOY was 0.321, indicating that the STAAR Reading score was 1,584 (1,584 + 0) as the EOY score increases 1 unit.

In summary, the findings demonstrate that ISIP Overall Reading Ability EOY scores are a reasonably good predictor. The prediction coefficients ( $R^2$ ) were relatively high across grades, indicating that ISIP Reading measures are predictive of STAAR Reading tests across grades.

## **Part II: Prediction Bands**

The confidence interval (CI) was applied to obtain the prediction band for each grade within each STAAR Reading performance standards from simple linear regression results. The confidence level was set at 0.95. Table 4 shows the prediction bands for 2015–2016, 2016–2017, 2017–2018, 2018–2019, 2019–2020, 2020–2021, 2021–2022 Recommended Level II, and 2021–2022 Recommended Level III STAAR Reading performance standards across grades, and Table 5 shows ISIP Reading cut scores to predict passing STAAR Reading tests. The results are reported as follows.

### **2015–2016 STAAR Reading Performance Standards**

For 3rd grade, the prediction band ranges from 234 to 236. The ISIP Early Reading score at 236 is the cut score. It is 95 percent certain that a group of students who have an ISIP Early Reading score of 236 will score higher than the STAAR Reading cut score 1,345. In other words, 3rd grade students who score 236 or higher on ISIP Early Reading will almost certainly pass STAAR Reading tests.

For 4th grade, the prediction band ranges from 1,828 to 1,846. The ISIP Advanced Reading score at 1,846 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 1,846 will score higher than the STAAR Reading cut score 1,434. In other words, 4th grade students who score 1,846 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 5th grade, the prediction band ranges from 1,817 to 1,846. The ISIP Advanced Reading score at 1,846 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 1,846 will score higher than the STAAR Reading cut score 1,470. In other words, 5th grade students who score 1,846 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 6th grade, the prediction band ranges from 1,933 to 1,972. The ISIP Advanced Reading score at 1,972 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 1,972 will score higher than the STAAR Reading cut score 1,517. In other words, 6th grade students who score 1,972 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 7th grade, the prediction band ranges from 2,010 to 2,059. The ISIP Advanced Reading score at 2,059 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,059 will score higher than the STAAR Reading cut score 1,567. In other words, 7th grade students who score 2,059 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 8th grade, the prediction band ranges from 2,069 to 2,123. The ISIP Advanced Reading score at 2,123 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,123 will score higher than the STAAR Reading cut score 1,587. In other words, 8th grade students who score 2,123 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

### **2016–2017 STAAR Reading Performance Standards**

For 3rd grade, the prediction band ranges from 238 to 240. The ISIP Early Reading score at 240 is the cut score. It is 95 percent certain that a group of students who have an ISIP Early

Reading score of 240 (4 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,365 (20 points higher than previous year cut score). In other words, 3rd grade students who score 240 or higher on ISIP Early Reading will almost certainly pass STAAR Reading tests.

For 4th grade, the prediction band ranges from 1,863 to 1,880. The ISIP Advanced Reading score at 1,880 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 1,880 (34 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,454 (20 points higher than previous year cut score). In other words, 4th grade students who score 1,880 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 5th grade, the prediction band ranges from 1,862 to 1,888. The ISIP Advanced Reading score at 1,888 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 1,888 (42 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,489 (19 points higher than previous year cut score). In other words, 5th grade students who score 1,888 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 6th grade, the prediction band ranges from 1,976 to 2,012. The ISIP Advanced Reading score at 2,012 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,012 (30 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,536 (19 points higher than previous year cut score). In other words, 6th grade students who score 2,012 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 7th grade, the prediction band ranges from 2,075 to 2,128. The ISIP Advanced Reading score at 2,128 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,128 (69 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,585 (18 points higher than previous year cut score). In other words, 7th grade students who score 2,128 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 8th grade, the prediction band ranges from 2,128 to 2,186. The ISIP Advanced Reading score at 2,186 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,186 (63 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,606 (19 points higher than previous year cut score). In other words, 8th grade students who score 2,123 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

### **2017–2018 STAAR Reading Performance Standards**

For 3rd grade, the prediction band ranges from 243 to 244. The ISIP Early Reading score at 244 is the cut score. It is 95 percent certain that a group of students who have an ISIP Early Reading score of 244 (4 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,386 (21 points higher than previous year cut score). In other words, 3rd grade students who score 244 or higher on ISIP Early Reading will almost certainly pass STAAR Reading tests.

For 4th grade, the prediction band ranges from 1,897 to 1,913. The ISIP Advanced Reading score at 1,913 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 1,913 (33 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,473 (19 points higher than previous year cut

score). In other words, 4th grade students who score 1,913 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 5th grade, the prediction band ranges from 1,906 to 1,930. The ISIP Advanced Reading score at 1,930 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 1,930 (42 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,508 (19 points higher than previous year cut score). In other words, 5th grade students who score 1,930 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 6th grade, the prediction band ranges from 2,015 to 2,050. The ISIP Advanced Reading score at 2,050 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,050 (38 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,554 (18 points higher than previous year cut score). In other words, 6th grade students who score 2,050 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 7th grade, the prediction band ranges from 2,138 to 2,201. The ISIP Advanced Reading score at 2,201 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,201 (73 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,603 (18 points higher than previous year cut score). In other words, 7th grade students who score 2,201 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 8th grade, the prediction band ranges from 2,184 to 2,250. The ISIP Advanced Reading score at 2,250 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,250 (64 points higher than previous year cut score) will

score higher than the STAAR Reading cut score 1,625 (19 points higher than previous year cut score). In other words, 8th grade students who score 2,250 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

### **2018–2019 STAAR Reading Performance Standards**

For 3rd grade, the prediction band ranges from 247 to 248. The ISIP Early Reading score at 248 is the cut score. It is 95 percent certain that a group of students who have an ISIP Early Reading score of 248 (4 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,406 (20 points higher than previous year cut score). In other words, 3rd grade students who score 248 or higher on ISIP Early Reading will almost certainly pass STAAR Reading tests.

For 4th grade, the prediction band ranges from 1,930 to 1,945. The ISIP Advanced Reading score at 1,945 is the cut score. It is 95 certain that a group of students who have an ISIP Advanced Reading score of 1,945 (32 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,492 (19 points higher than previous year cut score). In other words, a group of 4th grade students who score 1,945 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 5th grade, the prediction band ranges from 1,948 to 1,970. The ISIP Advanced Reading score at 1,970 is the cut score. It is 95 certain that a group of students who have an ISIP Advanced Reading score of 1,970 (40 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,526 (18 points higher than previous year cut score). In other words, 5th grade students who score 1,970 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 6th grade, the prediction band ranges from 2,057 to 2,091. The ISIP Advanced Reading score at 2,091 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,091 (41 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,573 (19 points higher than previous year cut score). In other words, 6th grade students who score 2,091 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 7th grade, the prediction band ranges from 2,200 to 2,274. The ISIP Advanced Reading score at 2,274 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,274 (73 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,621 (18 points higher than previous year cut score). In other words, 7th grade students who score 2,274 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 8th grade, the prediction band ranges from 2,236 to 2,313. The ISIP Advanced Reading score at 2,313 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,313 (63 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,643 (18 points higher than previous year cut score). In other words, 8th grade students who score 2,313 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

### **2019–2020 STAAR Reading Performance Standards**

For 3rd grade, the prediction band ranges from 251 to 252. The ISIP Early Reading score at 252 is the cut score. It is 95 percent certain that a group of students who have an ISIP Early Reading score of 252 (4 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,427 (21 points higher than previous year cut score). In other words,



3rd grade students who score 252 or higher on ISIP Early Reading will almost certainly pass STAAR Reading tests.

For 4th grade, the prediction band ranges from 1,963 to 1,978. The ISIP Advanced Reading score at 1,978 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 1,978 (33 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,511 (19 points higher than previous year cut score). In other words, 4th grade students who score 1,978 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 5th grade, the prediction band ranges from 1,992 to 2,012. The ISIP Advanced Reading score at 2,012 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,012 (42 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,545 (19 points higher than previous year cut score). In other words, 5th grade students who score 2,012 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 6th grade, the prediction band ranges from 2,098 to 2,133. The ISIP Advanced Reading score at 2,133 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score at 2,133 (42 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,592 (19 points higher than previous year cut score). In other words, 6th grade students who score 2,133 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 7th grade, the prediction band ranges from 2,258 to 2,345. The ISIP Advanced Reading score at 2,345 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,345 (71 points higher than previous year cut score) will

score higher than the STAAR Reading cut score 1,638 (17 points higher than previous year cut score). In other words, 7th grade students who score 2,345 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 8th grade, the prediction band ranges from 2,291 to 2,380. The ISIP Advanced Reading score at 2,380 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,380 (67 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,662 (19 points higher than last previous cut score). In other words, 8th grade students who score 2,380 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

### **2020–2021 STAAR Reading Performance Standards**

For 3rd grade, the prediction band ranges from 255 to 256. The ISIP Early Reading score at 256 is the cut score. It is 95 percent certain that a group of students who have an ISIP Early Reading score of 256 (4 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,447 (20 points higher than previous year cut score). In other words, 3rd grade students who score 256 or higher on ISIP Early Reading will almost certainly pass STAAR Reading tests.

For 4th grade, the prediction band ranges from 1,997 to 2,013. The ISIP Advanced Reading score at 2,013 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,013 (35 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,531 (20 points higher than previous year cut score). In other words, 4th grade students who score 2,013 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 5th grade, the prediction band ranges from 2,034 to 2,053. The ISIP Advanced Reading score at 2,053 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,053 (41 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,563 (18 points higher than previous year cut score). In other words, 5th grade students who score 2,053 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 6th grade, the prediction band ranges from 2,136 to 2,173. The ISIP Advanced Reading score at 2,173 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,173 (40 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,610 (18 points higher than previous year cut score). In other words, 6th grade students who score 2,173 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 7th grade, the prediction band ranges from 2,318 to 2,420. The ISIP Advanced Reading score at 2,420 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,420 (75 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,656 (18 points higher than previous year cut score). In other words, 7th grade students who score 2,420 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 8th grade, the prediction band ranges from 2,344 to 2,448. The ISIP Advanced Reading score at 2,448 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,448 (68 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,681 (19 points higher than previous year cut

score). In other words, 8th grade students who score 2,448 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

### **2020–2021 Recommended Level II STAAR Reading Performance Standards**

For 3rd grade, the prediction band ranges from 259 to 260. The ISIP Early Reading score at 260 is the cut score. It is 95 percent certain that a group of students who have an ISIP Early Reading score of 260 (4 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,468 (21 points higher than previous year cut score). In other words, 3rd grade students who score 260 or higher on ISIP Early Reading will almost certainly pass STAAR Reading tests.

For 4th grade, the prediction band ranges from 2,030 to 2,046. The ISIP Advanced Reading score at 2,046 is the cut score. It is 95 certain that a group of students who have an ISIP Advanced Reading score of 2,046 (33 points higher than last year cut score) will score higher than the STAAR Reading cut score 1,550 (19 points higher than previous year cut score). In other words, 4th grade students who score 2,046 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 5th grade, the prediction band ranges from 2,077 to 2,092. The ISIP Advanced Reading score at 2,092 is the cut score. It is 95 certain that a group of students who have an ISIP Advanced Reading score of 2,092 (39 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,582 (19 points higher than previous year cut score). In other words, 5th grade students who score 2,092 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 6th grade, the prediction band ranges from 2,176 to 2,215. The ISIP Advanced Reading score at 2,215 is the cut score. It is 95 certain that a group of students who have an ISIP

Advanced Reading score of 2,215 (42 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,629 (19 points higher than previous year cut score). In other words, 6th grade students who score 2,215 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 7th grade, the prediction band ranges from 2,378 to 2,496. The ISIP Advanced Reading score at 2,496 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,496 (76 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,674 (18 points higher than previous year cut score). In other words, 7th grade students who score 2,496 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

For 8th grade, the prediction band ranges from 2,397 to 2,516. The ISIP Advanced Reading score at 2,516 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,516 (68 points higher than previous year cut score) will score higher than the STAAR Reading cut score 1,700 (19 points higher than previous year cut score). In other words, 8th grade students who score 2,516 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests.

### **2020–2021 Recommended Level III STAAR Reading Performance Standards**

For 3rd grade, the prediction band ranges from 277 to 278. The ISIP Early Reading score at 278 is the cut score. It is 95 percent certain that a group of students who have an ISIP Early Reading score of 278 (8 points higher than 2020–2021 Recommended Level II cut score) will score higher than the STAAR Reading cut score 1,555 (87 points higher than 2020–2021 Recommended Level II cut score). In other words, 3rd grade students who score 278 or higher on ISIP Early Reading will almost certainly pass STAAR Reading tests at Level III standards.

For 4th grade, the prediction band ranges from 2,169 to 2,196. The ISIP Advanced Reading score at 2,196 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,196 (150 points higher than 2020–2021 Recommended Level II cut score) will score higher than the STAAR Reading cut score 1,633 (83 points higher than 2020–2021 Recommended Level II cut score). In other words, 4th grade students who score 2,196 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests at Level III standards.

For 5th grade, the prediction band ranges from 2,264 to 2,297. The ISIP Advanced Reading score at 2,297 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,297 (205 points higher than 2020–2021 Recommended Level II cut score) will score higher than the STAAR Reading cut score 1,667 (85 points higher than 2020–2021 Recommended Level II cut score). In other words, 5th grade students who score 2,296 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests at Level III standards.

For 6th grade, the prediction band ranges from 2,358 to 2,419. The ISIP Advanced Reading score at 2,419 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,419 (204 points higher than 2020–2021 Recommended Level II cut score) will score higher than the STAAR Reading cut score 1,718 (89 points higher than 2020–2021 Recommended Level II cut score). In other words, 6th grade students who score 2,419 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests at Level III standards.

For 7th grade, the prediction band ranges from 2,640 to 2,829. The ISIP Advanced Reading score at 2,829 is the cut score. It is 95 percent certain that a group of students who have

an ISIP Advanced Reading score of 2,829 (333 points higher than 2020–2021 Recommended Level II cut score) will score higher than the STAAR Reading cut score 1,753 (79 points higher than 2020–2021 Recommended Level II cut score). In other words, 7th grade students who score 2,829 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests at Level III standards.

For 8th grade, the prediction band ranges from 2,626 to 2,817. The ISIP Advanced Reading score at 2,817 is the cut score. It is 95 percent certain that a group of students who have an ISIP Advanced Reading score of 2,817 (301 points higher than 2020–2021 Recommended Level II cut score) will score higher than the STAAR Reading cut score 1,783 (83 points higher than 2020–2021 Recommended Level II cut score). In other words, 8th grade students who score 2,817 or higher on ISIP Advanced Reading will almost certainly pass STAAR Reading tests at Level III standards.

In summary, STAAR Reading performance standards increase approximately 20 points yearly for each grade level from 2015–2016 standards to 2021–2022 Recommended Level II standards. Using 2015–2016 ISIP Reading cut scores as a base line, the results show that ISIP Reading cut scores also increase constantly. ISIP Reading cut scores for 3rd grade increase 4 points for each STAAR Reading performance standards (see Table 5). The ISIP Reading gain scores are all 4 points for 2015–2016 standards to 2021–2022 Recommended Level II standards. ISIP Reading cut scores for 4th grade increase approximately 30 points continuously over years. The ISIP Reading gain scores are 34, 33, 32, 33, 35, and 33 for 2015–2016 standards to 2021–2022 Recommended Level II standards, respectively. ISIP Reading cut scores for 5th grade constantly increase approximately 40 points. The ISIP Reading gain scores are 42, 42, 40, 42, 41, and 39 for 2015–2016 standards to 2021–2022 Recommended Level II standards, respectively.

Similar to 5th grade, ISIP Reading cut scores increase approximately 40 points for 6th grade. The ISIP Reading gain scores are 30, 38, 41, 42, 40, and 42 for 2015–2016 standards to 2021–2022 Recommended Level II standards, respectively. ISIP Reading cut scores for 7th and 8th grade increase approximately 70 points for each year. The ISIP Reading gain scores are 69, 73, 73, 71, 75, and 76 for 7th grade and 63, 64, 63, 67, 68, and 68 for 8th grade for 2015–2016 standards to 2021–2022 Recommended Level II standards, respectively.

STAAR Reading performance standards increase approximately 80 points from 2021–2022 Recommended Level II standards to 2021–2022 Recommended Level III standards. The results show that ISIP Reading gain scores are 8, 150, 205, 204, 333, and 301 for grades 3 through 8, respectively. 3rd grade students need 8 more points on ISIP Reading scores to be able to meet STAAR Reading Recommended Level III standards; 4th grade students need 150; 5th grade students need 205; 6th grade students need 204; 7th grade students need 333; and 8th grade students need 301 more points. Figure 1 shows ISIP Reading cut scores and STAAR performance standards for 2015–2016 (pink lines), 2016–2017 (green lines), 2017–2018 (purple lines), 2018–2019 (gray lines), 2019–2020 (yellow lines), 2020–2021 (light green lines), 2020–2021 Recommended Level II (orange lines) and Recommended Level III (blue lines) for 3rd grade. Even though only the 3rd grade graph is presented, similar patterns are found across grades.

### **Conclusions**

These results of simple linear regression add to the evidence that ISIP Reading tests are predictive of STAAR Reading tests across grades and are consistent with prior studies (Patarapichayatham, Fahle, & Roden, 2013; Patarapichayatham, Fahle, & Roden, 2014; Patarapichayatham, 2015). The ISIP Reading tests can serve as predictors of how students will



score on STAAR Reading tests. The ISIP Reading cut scores to predict passing STAAR Reading tests are useful for school administrators, superintendents, teachers, and parents to predict students' performance on STAAR Reading tests. Also, teachers can use ISIP Reading cut scores to encourage students to improve their reading ability in order to meet STAAR performance standards. Teachers and parents can compare a student's ISIP Overall Reading Ability score directly with the ISIP Reading cut score.

To benefit from these results, teachers would ideally begin tracking to their students' scores from the beginning of the school year. By comparing a student's score with the ISIP Reading cut score, teachers can immediately tell how much a student must improve his or her reading ability in order to meet the ISIP Reading cut score, which means a likely chance of passing the STAAR Reading test. For example, under the 2015–2016 school year, the ISIP Reading cut score for 3rd grade is 236. If a 3rd grade student scores 230 at the beginning of the year (September assessment), the teacher will know that this particular student has room to grow: the student will need about 6 more points to meet ISIP Reading cut score at the end of the year. The teacher can work closely with this student to improve reading skills throughout school year.

Even though this study suggests that teachers use ISIP Reading cut scores to prepare students for STAAR Reading tests, it must be understood that complete certainty of passing the STAAR Reading test is actually unknown. To be more specific, the graph on Figure 1 shows that ISIP Reading cut scores and STAAR Reading performance standards create four meaningful quadrants. Quadrant I shows students who met the ISIP Reading cut score and passed the STAAR Reading test. A majority of students are in this quadrant, indicating that ISIP Reading tests are predictive of STAAR Reading tests. Quadrant II shows students who did not meet the ISIP Reading cut score but passed the STAAR Reading test. Only a few students are in Quadrant

II, confirming that ISIP Reading tests are highly correlated with STAAR Reading tests. Quadrant III shows students who did not meet the ISIP Reading cut score and did not pass the STAAR Reading test. Many students fall into Quadrant III, showing that if students do not do well on ISIP Reading tests, it will be almost impossible for them to pass STAAR Reading tests. Again, this finding also confirms a relationship between ISIP Reading tests and STAAR Reading tests. Quadrant IV shows students who met the ISIP Reading cut score but did not pass the STAAR Reading test. A few students fall in this quadrant, unfortunately. However, it must be noted that there are many other factors that may affect students' STAAR Reading scores beside their reading ability. For example, if a student has a physical issue (e.g., sickness or stress) before or during the STAAR Reading test, he or she may or may not pass, despite having met the ISIP Reading cut score.

Overall, I conclude that ISIP Reading tests are predictive of STAAR Reading tests across grades. ISIP Reading curriculum and ISIP Reading tests definitely can be used to prepare students for the STAAR Reading tests. If a student does very well on ISIP Reading tests, it is likely that he or she will almost certainly pass STAAR Reading tests in spring.

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Table 1

Descriptive Statistics of ISIP Reading and STAAR Reading Scale Scores

Grade	ISIP		STAAR		Correlation between ISIP and STAAR	
	n	Mean	SD	Mean		SD
3rd	3,397	253.00	22.05	1,438.26	143.58	0.737
4th	3,400	1,958.99	183.54	1,509.61	138.77	0.735
5th	3,556	2,036.32	192.12	1,566.24	137.30	0.706
6th	1,116	2,066.62	228.89	1,574.71	139.10	0.752
7th	730	2,017.96	192.99	1,566.60	92.05	0.549
8th	449	2,087.84	191.12	1,588.16	95.52	0.628

Table 2

Demographic Variables of Sample

Grade	Gender		Ethnicity							Economically Disadvantaged	
	Male	Female	Am Ind	Asian	Black	Hispanic	Multi	Nat Haw	White	No	Yes
	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)
3rd	1,660 (48.9)	1,737 (51.1)	10 (0.3)	300 (8.8)	624 (18.4)	1,663 (49)	80 (2.4)	1 (0)	719 (21.1)	1,162 (34.2)	2,235 (65.8)
4th	1,619 (47.6)	1,781 (52.4)	20 (0.6)	274 (8.1)	620 (18.2)	1,734 (51)	54 (1.6)	3 (0.1)	695 (20.4)	1,080 (31.8)	2,320 (68.2)
5th	1,683 (47.3)	1,973 (52.7)	9 (0.3)	312 (8.8)	618 (17.4)	1,809 (50.9)	85 (2.4)	2 (0.1)	721 (20.3)	1,136 (31.9)	2,420 (68.1)
6th	528 (47.3)	588 (52.7)	7 (0.6)	103 (9.2)	236 (21.1)	569 (51)	28 (2.5)	- (-)	173 (15.5)	333 (29.8)	783 (70.2)
7th	296 (40.5)	434 (59.5)	3 (0.4)	27 (3.7)	190 (26)	416 (57)	14 (1.9)	2 (0.3)	78 (10.7)	148 (20.3)	582 (79.7)
8th	197 (43.9)	252 (56.1)	4 (0.9)	7 (1.6)	155 (34.5)	218 (48.6)	13 (2.9)	1 (0.2)	51 (11.4)	89 (19.8)	360 (80.2)

Note: Am Ind = American Indian/Alaska Native; Multi = Multi-ethnicity; and Nat Haw = Native Hawaiian/Other Pacific Islander.

Table 3

## STAAR Reading Performance Standards

Grade	STAAR Reading Performance Standards						2021–2022	
	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021	Recommended Level II	Recommended Level III
3rd	1,345	1,365	1,386	1,406	1,427	1,447	1,468	1,555
4th	1,434	1,454	1,473	1,492	1,511	1,531	1,550	1,633
5th	1,470	1,489	1,508	1,526	1,545	1,563	1,582	1,667
6th	1,517	1,536	1,554	1,573	1,592	1,610	1,629	1,718
7th	1,567	1,585	1,603	1,621	1,638	1,656	1,674	1,753
8th	1,587	1,606	1,625	1,643	1,662	1,681	1,700	1,783

Table 4

## ISIP Reading Prediction Bands

Grade	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021	2021–2022	
							Recommended Level II	Recommended Level III
3rd	234–236	238–240	243–244	247–248	251–252	255–256	259–260	277–278
4th	1,828–1,846	1,863–1,880	1,897–1,913	1,930–1,945	1,963–1,978	1,997–2,013	2,030–2,046	2,169–2,196
5th	1,817–1,846	1,862–1,888	1,906–1,930	1,948–1,970	1,992–2,012	2,034–2,053	2,077–2,092	2,264–2,297
6th	1,933–1,972	1,976–2,012	2,015–2,050	2,057–2,091	2,098–2,133	2,136–2,173	2,176–2,215	2,358–2,419
7th	2,010–2,059	2,075–2,128	2,138–2,201	2,200–2,274	2,258–2,345	2,318–2,420	2,378–2,496	2,640–2,829
8th	2,069–2,123	2,128–2,186	2,184–2,250	2,236–2,313	2,291–2,380	2,344–2,448	2,397–2,516	2,626–2,817

Table 5

## ISIP Reading Cut Scores to Predict Passing STAAR Reading tests

Grade	2015–2016	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021	2021–2022	
							Recommended Level II	Recommended Level III
3rd	236	240	244	248	252	256	260	278
4th	1,846	1,880	1,913	1,945	1,978	2,013	2,046	2,196
5th	1,846	1,888	1,930	1,970	2,012	2,053	2,092	2,297
6th	1,972	2,012	2,050	2,091	2,133	2,173	2,215	2,419
7th	2,059	2,128	2,201	2,274	2,345	2,420	2,496	2,829
8th	2,123	2,186	2,250	2,313	2,380	2,448	2,516	2,817



Table 6

Simple Linear Regression Analysis for 3rd Grade

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.737 <sup>a</sup>	.543	.542	97.129	.543	4026.310	1	3395	.000

a. Predictors: (Constant), EOY

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37984689.516	1	37984689.516	4026.310	.000 <sup>b</sup>
	Residual	32028834.153	3395	9434.119		
	Total	70013523.669	3396			

a. Dependent Variable: STAAR

b. Predictors: (Constant), EOY

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1433.660	1.668		859.472	.000	1430.389	1436.930
	EOY	4.962	.078	.737	63.453	.000	4.809	5.115

a. Dependent Variable: STAAR

Table 6 (Continued)

Simple Linear Regression Analysis for 4th Grade

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.735 <sup>a</sup>	.541	.541	94.051	.541	4001.416	1	3398	.000

a. Predictors: (Constant), EOY

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	35394663.498	1	35394663.498	4001.416	.000 <sup>b</sup>
	Residual	30057124.032	3398	8845.534		
	Total	65451787.529	3399			

a. Dependent Variable: STAAR

b. Predictors: (Constant), EOY

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1504.357	1.615		931.436	.000	1501.190	1507.524
	EOY	.579	.009	.735	63.257	.000	.561	.597

a. Dependent Variable: STAAR

Table 6 (Continued)

Simple Linear Regression Analysis for 5th Grade

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.706 <sup>a</sup>	.499	.499	97.206	.499	3538.344	1	3554	.000

a. Predictors: (Constant), EOY

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	33434011.304	1	33434011.304	3538.344	.000 <sup>b</sup>
	Residual	33581943.519	3554	9449.056		
	Total	67015954.822	3555			

a. Dependent Variable: STAAR

b. Predictors: (Constant), EOY

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1559.765	1.634		954.728	.000	1556.561	1562.968
	EOY	.544	.009	.706	59.484	.000	.526	.562

a. Dependent Variable: STAAR

Table 6 (Continued)

## Simple Linear Regression Analysis for 6th Grade

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.752 <sup>a</sup>	.565	.565	91.780	.565	1447.274	1	1114	.000

a. Predictors: (Constant), EOY

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12191156.425	1	12191156.425	1447.274	.000 <sup>b</sup>
	Residual	9383810.669	1114	8423.528		
	Total	21574967.093	1115			

a. Dependent Variable: STAAR

b. Predictors: (Constant), EOY

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1569.804	2.750		570.758	.000	1564.407	1575.200
	EOY	.464	.012	.752	38.043	.000	.440	.488

a. Dependent Variable: STAAR

Table 6 (Continued)

Simple Linear Regression Analysis for 7th Grade

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.549 <sup>a</sup>	.301	.300	77.017	.301	313.446	1	728	.000

a. Predictors: (Constant), EOY

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1859255.049	1	1859255.049	313.446	.000 <sup>b</sup>
	Residual	4318253.538	728	5931.667		
	Total	6177508.588	729			

a. Dependent Variable: STAAR

b. Predictors: (Constant), EOY

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1562.742	2.859		546.629	.000	1557.130	1568.355
	EOY	.269	.015	.549	17.704	.000	.239	.298

a. Dependent Variable: STAAR

Table 6 (Continued)

Simple Linear Regression Analysis for 8th Grade

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.628 <sup>a</sup>	.394	.393	74.423	.394	291.049	1	447	.000

a. Predictors: (Constant), EOY

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1612051.899	1	1612051.899	291.049	.000 <sup>b</sup>
	Residual	2475831.233	447	5538.772		
	Total	4087883.131	448			

a. Dependent Variable: STAAR

b. Predictors: (Constant), EOY

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1584.486	3.519		450.286	.000	1577.570	1591.401
	EOY	.321	.019	.628	17.060	.000	.284	.358

a. Dependent Variable: STAAR

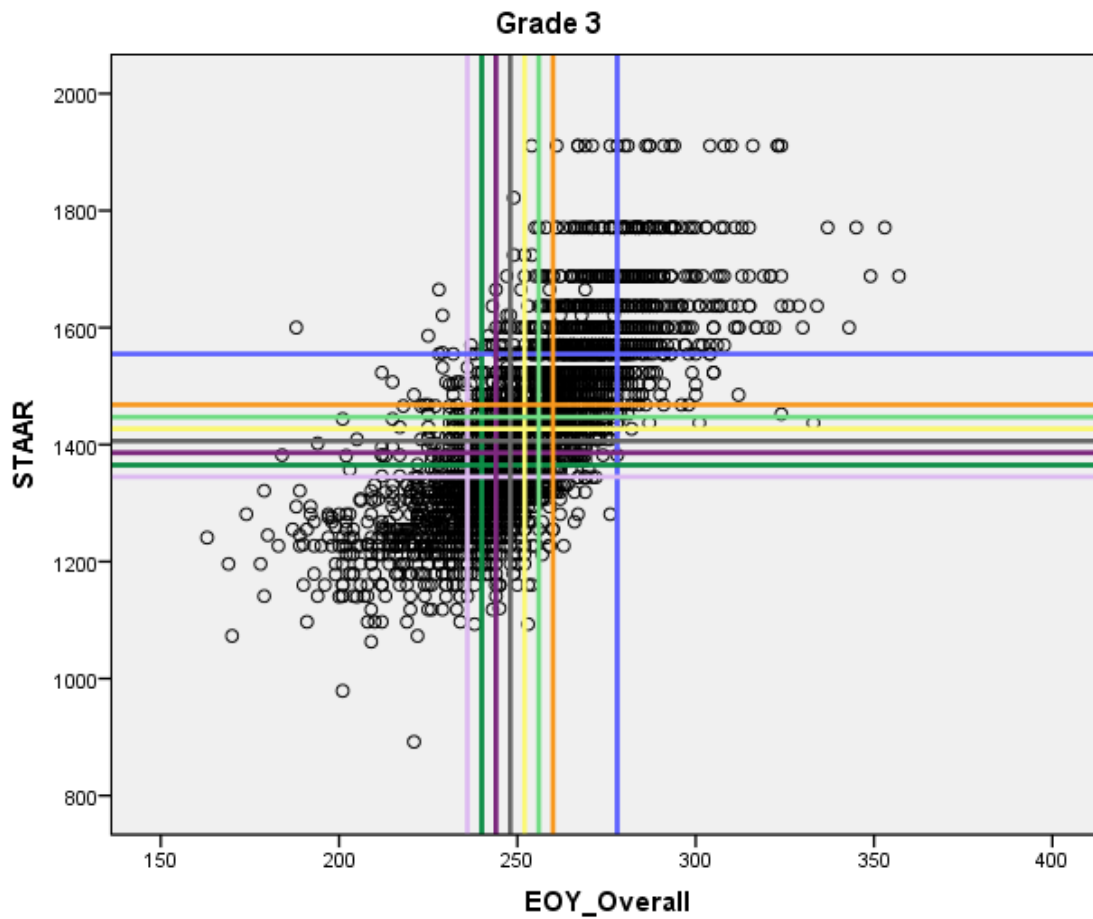


Figure 1. ISIP Reading cut scores and STAAR performance standards

- Pink = 2015–2016
- Green = 2016–2017
- Purple = 2017–2018
- Gray = 2018–2019
- Yellow = 2019–2020
- Light Green = 2020–2021
- Orange = 2020–2021 Recommended Level II
- Blue = 2020–2021 Recommended Level III