



AISD PREKINDERGARTEN PROGRAM LONGITUDINAL SUMMARY REPORT
ISSUE 2: HALF DAY VERSUS FULL DAY PROGRAMS
MARCH 2011

PURPOSE

The Department of Early Childhood requested an investigation into the long term effects of AISD half day versus full day prekindergarten (pre K) participation. Austin Independent School District (AISD) currently funds a full day pre K program for all students who qualify. This report provides:

Historical background of the full day and half day pre K programs

Description of the pre K enrollment increase that resulted from the district wide implementation of the full day program in 2002–2003

Reanalysis of the Peabody Picture Vocabulary Test, Third Edition (PPVT III) and the Test de Vocabulario en Imagenes Peabody (TVIP) comparisons for half day and full day pre K programs for the



FINDINGS

The major findings of this report include:

District wide half day pre K programming was implemented in AISD in 1986–1987 to increase the number of children in school (and) served that year. In 1987–1988, the district re implemented full day programming to some schools relying on Chapter 1 (Title I) funds, which were used in previous years to fund full day pre K.

Enrollment growth was nearly three times greater for schools transitioning from half day to full day pre K in 2002–2003 than for schools that already had access to a full day pre K program, suggesting full day

- If schools that have *fewer* students entering pre K who score below the national norm in receptive vocabulary need to implement a half day pre K rather than full day pre K program, then pre K students might not experience a significant loss in pre literacy growth, assuming the half day program (and its vocabulary) D

HISTORICAL BACKGROUND

Since the introduction of pre K into the district in the 1970s, the only year in which AISD did not have a full day pre K program was 1986–1987 (Leben, 1987). In 1985, half day pre K became funded by the state; however, in 1985–1986, AISD continued to fund a full day program for all pre K classes, using

Prekindergarten Expansion Grant to reimburse districts using Title I funds to support full day pre K. The 2001–2002 pre K cohort was the last in the district to either attend a half day or full day program, based on the school receiving additional funding provided by the state’s aforementioned grant (Curry, 2002). Through the grant, 47 schools offered a full day program. The 14 schools that did not receive state grant funds offered a half day program that year.

In 2002–2003, AISD supported full day pre K for all eligible students district wide at the 61 elementary schools with a pre K program (Curry, 2003). The Expansion Grant continued to fund only 47 schools. Local funds supported the expansion of the full day program at the 14 other elementary schools.

In 2009, approved Texas HB 130 would have funded full day

AISD kindergarten students who might otherwise not attend pre K. Furthermore, the E3 Alliance estimate assumed that schools that offered half day programs would offer on campus wrap around services similar to those offered by neighboring districts. If wrap around services are not provided to these campuses, the estimated decrease in usage rates for AISD will be higher (i.e., fewer eligible students will attend pre K).

Furthermore, pre K usage rates might decrease disproportionately based on the immigrant status of students. In

students who attended half day pre K and the outcomes of students who attended full day pre K. In the reanalysis of the assessments, DPE staff discovered two errors in

Normalized PPVT III and TVIP scores for students in the 2001-2002 and 2009-2010 pre K cohorts, based on schools' concentration of students scoring below an 85 on the PPVT III/TVIP in their native language (i.e., below the national norm in receptive vocabulary ability). A cut off point of 35% of pre K students scoring below the national average range was used in order to ensure statistical significance.

rounding. The dotted red line represents a score of 85, the minimum score to be within the normalized national average range (i.e., 85 to 115, wherein 100 represents the mean score).

Arrows and indicate significant differences ($p < .05$) based on Anova tests.

IS FULL DAY PRE K BENEFICIAL IN SCHOOLS THAT HAVE MORE STUDENTS DEMONSTRATING A NEED FOR PRE K?

With the possibility of AISD implementing half day pre K district wide in the future due to budget cuts, DPE staff examined whether the pre K program type made a difference for students with different pre literacy ability upon entry to the program. DPE staff compared PPVT III and TVIP results of students from the 2001–2002 and 2009–2010 pre K cohorts, based on schools' concentration of students scoring below an 85 on the PPVT III/TVIP in their native language (i.e., below the national norm in receptive vocabulary ability). A cut off point of 35% of pre K students scoring below the national average range was used in order to ensure statistical significance.

Figure 4. Average Peabody Picture Vocabulary Test (PPVT III) or Test de Vocabulario en Imagenes Peabody (TVIP) PPVT III Pretest and Posttest Scores, 2001–2002 and 2009–2010, by Program

(a) Schools with less than 35% of entering prekindergarten cohort below national norm in their native language

of passing TAKS due to previous abilities was controlled. Any student growth up to 3rd grade that might be attributed to full day or half day pre K was “zeroed” out through this method. In other words, full day pre K students were compared with half day and kindergarten only pre K students who had achieved the same level of academic

Figure 6. Students' Probability of Passing and Earning Commended Status on 2010 7th Grade Math Texas Assessment of Knowledge and Skills (TAKS), by Program and Kindergarten English Language Learner (ELL) Status

(a) Non ELLs

(b) ELLs

Source. AISD student records

Note. For the displayed predicted probabilities, 3rd grade math scale score was set to the sample's median score of 2170. For students scoring higher than the median, probabilities were higher. For students scoring lower than the median, probabilities were lower. Furthermore, the magnitude of the difference in program effect was greater for students with higher 3rd grade math scores than for students with lower scores.

Arrows and indicate significant differences ($p < .05$); indicates moderate significance ($p < .07$).

In general, ELLs were less likely to pass or receive commended scores on 7th grade math TAKS than were non ELLs who shared similar 3rd grade math TAKS scores. Overall, the pre K program did not have a significant effect on students' probability of passing 7th grade math TAKS. However, half day pre K students were significantly less likely to receive commended scores on math TAKS than were kindergarten students who did not attend AISD pre K, and they were moderately less likely to receive commended scores than were students who attended full day pre K (Figures 6a and

the program effect is amplified when the 3rd grade math score is set to 2400 (i.e., commended level). Using the TAKS scale score of 2400, full day non ELLs had a 45% probability of receiving commended on their 7th grade math TAKS, and half day non ELLs had a 31% probability of receiving commended, a 14 percentage point difference. Full day ELLs scoring a 2400 on 3rd grade math TAKS had a 30% probability of receiving commended on 7th grade math TAKS, and half day ELLs had only a 19% probability of receiving a commended score.

CONCLUSION

