



AUSTIN INDEPENDENT SCHOOL DISTRICT
Department of Program Evaluation

PREKINDERGARTEN EVALUATION, 2009–2010

RESEARCH BRIEF

October, 2010

PROGRAM DESCRIPTION

The Austin Independent School District (AISD) prekindergarten (pre-K) program served 5,450 enrolled students at 68 elementary campuses, including the Lucy Read Demonstration School, a campus dedicated to pre-K programming. In 2009–2010, enrollment increased by 5% from the previous year. The 2009–2010 funding sources for the AISD pre-K program included the American Recovery and Reinvestment Act (ARRA) State Fiscal Stabilization Fund (SFSF) (\$12.2 million), ARRA Title I (\$1.0 million), Texas Education Agency (TEA) Prekindergarten Early Start and Texas School Ready grants (formerly the Prekindergarten Expansion Grant) (\$4.9 million), and Title I A (\$54 thousand). Ninety-seven percent of the \$18.1 million was used to pay teacher and professional personnel salaries and benefits for student instruction.

The overall cost per student enrolled for the 2009–2010 pre-K program was \$3,328. Compared with the average spent in Texas per pre-K student enrolled in 2008–2009 (\$3,790), the cost savings were \$2.5 million (based on total AISD pre-K enrollment). Compared with the national average spending on pre-K per student enrolled (\$4,711), the savings were approximately \$7.5 million.

COMMUNITY PARTNERSHIPS

The AISD pre-K program participated in many innovative partnerships to promote integration of services for pre-K students and their families. Descriptions of some of the AISD pre-K community partnerships with local nonprofit agencies and private day care providers are as follows:

- **Satellite campuses:** AISD placed three pre-K teachers in two Head Start campuses and one private child-care facility, and served 54 students.
- **Head Start (Child, Inc.):** Head Start provided instructional support and comprehensive health services to low-income students across 12 AISD elementary campuses.
- **AmeriCorps for Community Engagement (ACE):** AmeriCorps participants served AISD students at Read, Allison, Linder, and Sanchez Elementary Schools; worked directly with students in small groups in 26 classrooms, the library, and science laboratory; collectively they provided more than 20,000 hours of service.
- **ePromotora:** Delivered through Advancing America, LLC, this 6-week program helped Spanish-speaking mothers across 25 East Austin elementary campuses learn how to develop their child’s vocabulary and early mathematics (math) skills and increase their child’s awareness of the alphabet, colors, and shapes.

The full summary report can be found at the following link:

<http://www.austinisd.org/inside/accountability/evaluation/reports.phtml>

Prekindergarten



OVERVIEW

AISD provides a full-day pre-K program for all children who are 4-years-old on or before September 1st of the current school year and who meet one of the following eligibility criteria:

- Economically disadvantaged (qualify for free or reduced-price lunch program)
- English language learner (ELL)
- Homeless
- Child of an active-duty military member or a military member who was injured or killed in service
- Resides or has ever resided in foster care (Texas Education Code §29.153, [b]).

The AISD pre-K program is designed to provide instructional activities to meet the individual needs of young children and stimulate learning in all areas of physical, social, emotional, and cognitive development.

PRE-K ENROLLMENT, 2009–2010

Total Pre-K Enrollment: 5,450

Economic disadvantage	96%
English language learner	58%
Homeless	3%
Military dependent	<1%
Foster care	<1%
Ethnicity	
Hispanic	78%
African American	12%
White	6%
Asian	4%

➤ **55%** qualified for pre-K by both economic disadvantage and ELL status.

DESCRIPTION OF PREKINDERGARTEN TEACHERS

The pre-K program increased its staff from the previous year by 13 teachers to a total of 322 teachers. The pre-K teaching staff was composed of 171 bilingual-certified teachers (53%), 77 English-speaking teachers (24%), and 75 certified in English as a second language (ESL; 24%). The number of ESL-certified teachers grew from 53 teachers last year, representing a 42% increase. All pre-K teachers met the highly qualified criteria for No Child Left Behind (NCLB, 2001) by having a bachelor's degree or higher and full state certification or licensure.

ECIRCLE Professional Development Program

With a goal of providing a quality pre-K program, 145 AISD pre-K teachers participated in an evidence-based professional development program provided through state pre-K initiative grants (i.e., the Prekindergarten Early Start Grant, the Bilingual Limited English Proficiency [LEP] program, and the Texas School Ready! Grant). As a part of these grants, teachers began with 2 to 3 days of training, provided by the Center for Improving the Readiness of Children for Learning and Education (CIRCLE) to pre-K teachers across the district whose schools received such funding.

CIRCLE and eCIRCLE, an online evidence-based teacher development program, were developed by the staff of the Children's Learning Institute at the University of Texas Health Science Center in Houston, which is the State Center for Early Childhood Development. ECircle trainings were provided to teachers online using software from Teachscape.

In addition to the initial 2 to 3 days of CIRCLE training, teachers attended at least 20 two-hour eCIRCLE trainings offered throughout the year. CIRCLE teachers also were provided with a mentor for 2 to 4 hours a month, \$2,500 for class materials, online tools for progress monitoring, and a \$1,000 stipend upon program completion, as part of their participation. According to AISD's Department of Early Childhood, a total of 145 pre-K teachers (45%) each participated in a minimum of 56 hours of pre-K specific training, for a total of at least 8,120 hours of CIRCLE/eCIRCLE training.

LANGUAGE OF INSTRUCTION

Forty-three languages other than English were reported by pre-K students' parents as being primarily spoken at home. In addition to offering pre-K instruction in English, AISD offers bilingual instruction in Spanish, Vietnamese (at Summitt), and Korean (at Mathews). For ELLs not served in a bilingual program, English instruction was delivered by an ESL-certified teacher.

Quick Facts

- **Staff-to-student ratio:**
1:17
- **Average teaching experience:**
11 years
- **Number of students served by bilingual education (BE):**
2,770
- **Number of students served by the ESL program:**
375
- **Average daily attendance rate:**
93.1%
- **Percent of pre-K students enrolled for the full year:**
73%
- **Percentage of pre-K students who attended more than one elementary campus:**
9%

PRE-K RECEPTIVE VOCABULARY ABILITY

The Peabody Picture Vocabulary Test – III (PPVT-III) and the Test de Vocabulario en Imágenes Peabody (TVIP) measure knowledge of receptive vocabulary in English and Spanish, respectively. Pre- and post-assessments were administered to a random sample of pre-K classes in the fall and spring of the 2009–2010 academic year. At least one class was chosen from each of the 68 campuses; 8 classrooms were chosen from Lucy Read. All students in the sample were tested in English (PPVT-III), and the Spanish BE students were tested in Spanish (TVIP), as well. A total of 971 students were tested in both semesters, representing nearly 18% of all students enrolled in the pre-K program. Of the students tested, 11% ($n = 107$) were at Lucy Read. Figures 1a and 1b summarize district-wide student performance on the PPVT for English speakers and on the TVIP for Spanish speakers, respectively.

Figure 1a. English-Speaking Students' Peabody Picture Vocabulary Test (PPVT – III) Performance, by Semester, 2009–2010 ($N = 338$)

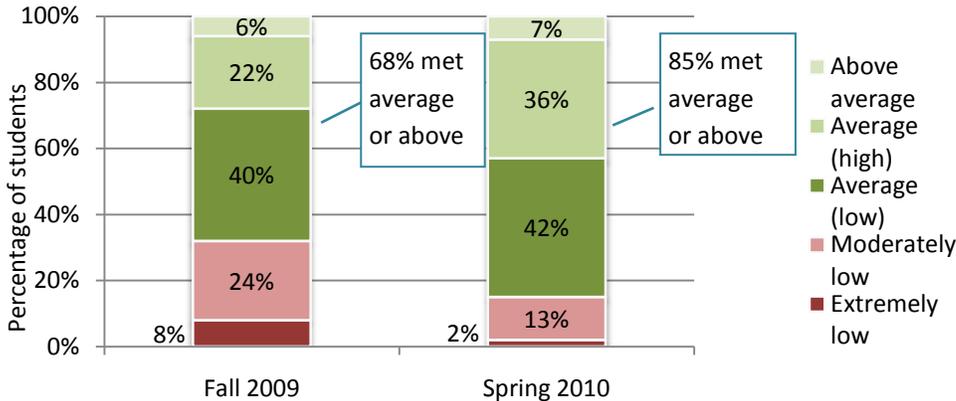
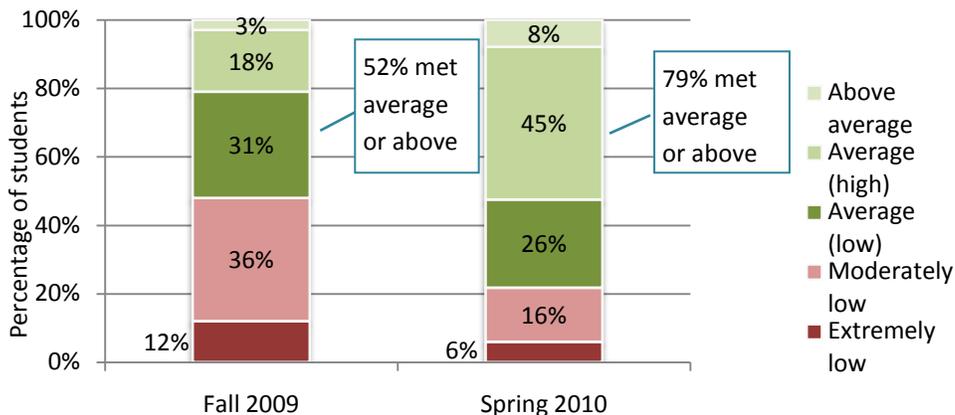


Figure 1b. Spanish-Speaking Students' Test de Vocabulario en Imágenes Peabody (TVIP) Performance, by Semester, 2009–2010 ($N = 415$)



Source: AISD student records, Department of Program Evaluation

Quick Facts

- On average, English-speaking pre-K students gained the equivalent of 14 months in receptive vocabulary ability in a 7-months period (twice the expected growth).
- On average, sampled Spanish-speaking pre-K students gained the equivalent of 18 months in receptive vocabulary ability (2.6 times the expected growth) and were performing at their age level or better by the end of the year.
- Approximately 70% ($n = 237$) of sampled English-speaking pre-K students and 74% ($n = 306$) of sampled Spanish-speaking pre-K students improved their age equivalency score by more than 7 months (i.e., faster than the expected growth rate in receptive vocabulary).
- Ninety-one percent of sampled AISD Spanish-speaking ELLs entered pre-K with little receptive vocabulary ability in English (i.e., one to two standard deviations below average.)

Lucy Read Demonstration School

The TVIP sample included 79 native Spanish ELLs from Lucy Read Demonstration School who took the assessment in both the fall and spring. To make group comparisons and estimates of students' gains and losses, standardized scale scores were converted into normal curve equivalent (NCE) scores. Table 1 shows the averaged NCEs district wide and for the sample of ELLs on the Lucy Read campus from fall and spring, and the average gains made during the 2009–2010 school year. When interpreting an NCE average gain (or loss), note that a zero shows that the students' growth did not differ from the national average expected growth. Deviations of ± 4 represent a significant growth (or loss) compared with expected growth nationally, and deviations of ± 11 represent a very high significant gain (or loss).

Interpretation of Normal Curve Equivalent (NCE) Scores

Range of performance	NCE score	National percentile
Very low	1 – 24	1 – 11
Low	25 – 35	12 – 25
Low average	36 – 44	26 – 39
Average	45 – 55	40 – 60
High average	56 – 64	61 – 74
High	65 – 75	75 – 88
Very high	76 – 99	89 – 99

Table 1. Test de Vocabulario en Imágenes Peabody (TVIP) Normal Curve Equivalent (NCE) Results, 2009–2010

Native Spanish, English language learners (ELLs)	Number of students tested	Average NCE (Fall 2009)	Average NCE (Spring 2010)	Average gain
District wide	443	31	46	15
District wide, excluding Lucy Read	364	32	45	13
Lucy Read Prekindergarten	79	30	49	19

Source. AISD student records, Department of Program Evaluation

On average, native Spanish ELLs entered the pre-K program with *low* performance in receptive vocabulary. However, by the end of the year, native Spanish ELLs performed in the average range, improving by two performance categories. Although *t*-tests did not show a significant difference between sampled Lucy Read students and other sampled native Spanish students district wide ($p = .07$), tested Lucy Read students did have high average gains (+19) in the TVIP NCE scores from fall to spring.

COGNITIVE AND PERSONAL DEVELOPMENT

The AISD Pre-K Report Card Assessment Rubrics were designed to provide consistency in scoring students' academic progress on the Prekindergarten Report to Parents each 9-week period in listening, math, oral language, social studies/science/health, writing, pre-reading, ESL, and personal development. Academic performance was rated with the following scale: 1 = *needs improvement*, 2 = *basic understanding*, 3 = *skilled*, and 4 = *advanced*. A rating of 3 or 4 was defined as being *on grade level*. The content areas with the highest percentage of students on grade level at the end of the year were social studies/science/health (89%), math (88%), pre-reading (83%), and writing (82%). The greatest growth from the first to fourth 9-week grading period was in social studies/science/health (+38%), followed by math (+31%).

The AISD pre-K program is aimed at developing the whole student, including social and personal development skills. The personal development traits with the highest percentage of students meeting expectations at the end of the year were “exhibits appropriate gross motor skills” (97%), “adjusts to school routines” (94%), and “demonstrates healthy practices” (94%). Seventy-percent of pre-K students met expectations with respect to student behavior on all 14 personal development traits by the end of the year, and 33% of pre-K students met expectations during the first 9-week period.