MEMORANDUM   September 25, 2014

TO: Board Members

FROM: Terry B. Grier, Ed.D.
               Superintendent of Schools

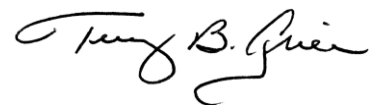SUBJECT: **HIPPY PROGRAM EVALUATION REPORT**

CONTACT: Carla Stevens, (713) 556-6700

Attached is the 2013–2014 evaluation report on the Home Instruction of Parents with Preschool Youngsters (HIPPY) Program. HIPPY is a school readiness program that helps parents prepare their preschool children for academic success. This report provides a summary of HIPPY program activities and its effectiveness for HISD student participants.

A total of 577 students and their parents participated in the Houston Independent School District (HISD) HIPPY program during the 2013–2014 academic year, which was more than twice the number of students in the previous year. Parental Involvement Survey results indicated an increase, from pre- to post-survey, in the average number of books that their children had access to and in the average number of minutes each day that a family member read to their child. The current impact of the program was measured using the 2014 Aprenda 3 results. The 2010–2011 and the 2011–2012 HISD HIPPY cohorts attained higher mean NCEs on the Aprenda 3 reading and mathematics subtests compared to HISD students at comparable grade levels.

Administrative Response: During the 2014–2015 school year, 48 HISD schools will participate in the HIPPY program. As a result, parent recruitment and retention, and student cognitive development at these sites are expected to increase. The goal for 2014–2015 school year is to serve 810 HISD families, a 35 percent increase over the 2013–2014 school year, which will make Houston ISD the second largest HIPPY provider in Texas.

Given that academic performance benefits have been found for HIPPY students, the program administration will continue to work to provide quality program activities and maintain alignment with national HIPPY standards.

_____TBG

Attachment

cc: Superintendent's Cabinet
            Alex Morua
            Maria Gabriella Hernandez

RESEARCH

Educational Program Report

HOME INSTRUCTION FOR PARENTS OF PRESCHOOL YOUNGSTERS (HIPPY), 2013 – 2014

HISD | **Research and Accountability**
ANALYZING DATA, MEASURING PERFORMANCE.

HOME INSTRUCTION FOR PARENTS OF PRESCHOOL YOUNGSTERS (HIPPY), 2013–2014

Executive Summary

Home Instruction for Parents of Preschool Youngsters (HIPPY) is an international, school readiness, early literacy program that offers educational enrichment opportunities to parents and children from disadvantaged backgrounds in the Houston Independent School District (HISD). HIPPY utilizes a home-based, family-focused model to help parents prepare their children for academic success prior to enrolling in school. Targeted parents have preschool children ages three to five years old. HIPPY USA supports HISD HIPPY by providing technical assistance to participating school districts. Expected outcomes for children include the development of fundamental academic concepts, literacy and numeracy skills, values and attitudes, concentration and confidence, successful navigation from home to school, empathy toward others, and a positive relationship with their parents. During the 2013–2014 academic year, HISD expanded HIPPY to reach more students and parents in HISD Board Districts. Consistent with HIPPY objectives, this evaluation addressed the following areas:

- Participation trends,
- Academic enrichment activities,
- 2014 Aprenda 3 reading and mathematics subtests performance,
- Bracken School Readiness Assessment (BSRA®) outcomes, and
- Parental Involvement Survey results.

Highlights

- During the 2013–2014 academic year, HIPPY operated in 34 HISD elementary school sites, across seven HISD Board of Trustee districts. Staff resources included two program coordinators and 35 home instructors. The HISD HIPPY budget allocation was $749,857, which more than doubled from the 2012–2013 academic year.

- A total of 577 three to five-year old children, along with their parents, participated in HIPPY during the 2013–2014 academic year. Among the 577 children, 189 of them also were identified as HISD students in the 2013–2014 Public Education Information Management System (PEIMS). The majority of the HISD HIPPY students were female (56.1 percent) and Hispanic (74.6 percent). Additionally, 65.6 percent of the students were identified as limited English proficient (LEP), 97.9 percent as at-risk of dropping out of school, while 95.8 percent were economically disadvantaged.

- Over the past three years, the ethnic composition of HIPPY HISD students has fluctuated. One of the most notable trends in this area was a decrease in the proportion of Hispanic students by 18.2 percent from 2012–2013 to 2013–2014, as the percentage of African American students nearly tripled (from 8.1 percent to 23.3 percent). The percentage of limited English proficient students decreased from 78.7 percent to 65.6 percent over the same time period.

- In addition to home instruction lessons, over 1,500 HISD HIPPY parents, students, and family members participated in the *End of Year HIPPY Celebratios* enrichment activity. The activity supported parental involvement and leadership skill development.

- In order to determine the current impact of the 2010–2011 program on student achievement, the spring 2014 Aprenda 3 reading and mathematics performance of participating students was assessed at first, second, and third grades. A notable finding was the 2010–2011 HISD HIPPY student cohort outperformed their district wide peers at all of these grade levels. The largest difference between HIPPY and their HISD peers was at third grade in reading and mathematics (10.6 and 7.8 NCEs, respectively).

- Additional impact of the program was measured based on the performance of the 2011–2012 HISD HIPPY student cohort. This group outperformed their district wide peers on the spring 2014 Aprenda 3 in reading and mathematics at first and second grades, which were the grade levels assessed. The largest difference between HIPPY and HISD students was at second grade in both reading (9.1 NCEs) and in mathematics (12.7 NCEs).

- A sample of 375 parents who completed the 2013–2014 Parental Involvement Survey indicated an increase in the average number of books that their child had access to (25 vs. 41 books, respectively) and an increase in the average number of minutes each day that they or someone in the family read to their child (20 vs. 26 minutes, respectively) from pre-survey to post-survey.

- The percentage of parents who reported on the Parent Involvement Survey that they read to their child every day increased from 20.0 percent to 34.7 percent from pre- to post-survey.

- On the Bracken School Readiness Assessment, a paired sample of 207 children in the 2013–2014 HISD HIPPY cohort achieved statistically significant increases in the mean number of items they answered correctly from pre- to post-tests on all school readiness subscales ($p < .001$). The mean differences from pre- to post-test were identifying sizes (+4.2 items), shapes (+3.6 items), numbers (+3.4 items), letters (+2.1 items), and colors (+2.0 items). There was also an increase in the mean School Readiness Composite Score from pre- to post-test by 15.4 items correct.

- Cost benefit analysis was conducted based on 2014 Aprenda 3 results for the 2011–2012 HISD HIPPY student cohort. For a per student cost of $1,211, there is an expected gain of 1 point in reading and 5.3 points in mathematics at first grade relative to comparable students in the District. This benefit extends to an average expected gain of 9.1 points in reading and 12.7 points in mathematics at second grade.

Recommendations

1. Due to the positive academic achievement outcomes of HISD HIPPY students in this report, HISD should continue to support the HIPPY program. The program facilitates school readiness and literacy development in preschool children.

2. HISD should consider expanding the HIPPY program to additional elementary school sites to address the literacy needs of more economically-disadvantaged students across the District.

Introduction

Home Instruction for Parents of Preschool Youngsters (HIPPY) is an international program that offers educational enrichment opportunities to parents and children from disadvantaged backgrounds in the Houston Independent School District (HISD). HIPPY utilizes a home-based, family-focused model to help parents prepare their children for academic success prior to enrolling in school. HIPPY USA supports HIPPY programs nationwide by offering technical assistance. HIPPY promotes school readiness and early literacy by:

- creating an environment that supports parents in their role as the child's first teacher;
- providing a HIPPY curriculum with activities for preschool children, that offers practice in skills that research has proven crucial to school readiness;
- designing the HIPPY curriculum so that parents from disadvantaged backgrounds (i.e., those with limited or unsuccessful schooling, and/or limited financial resources) can be successful teachers of their own children; and
- helping parents understand what their child is learning and how that supports future learning.

Targeted parents have preschool children ages three to five years old and reside within HISD geographical boundaries. Expected outcomes for children in HIPPY include the development of basic academic readiness concepts and skills, values and attitudes, concentration, confidence, successful transition from the home to school environment, empathy towards others, and positive relationships with parents.

The HIPPY program was first implemented in HISD by the Early Childhood Department as a pilot program during the 1993–1994 academic school year. During the 2013–2014 academic year, HIPPY was funded through the HISD Family and Community Engagement Department (FACE), which oversees parent-related activities. HIPPY has expanded over the years to reach more parents whose children may enroll in HISD schools. Specifically, during the 2012–2013 academic year, HIPPY operated in 12 HISD elementary schools, covering six Board of Trustee Districts. HIPPY was staffed by one coordinator at that time. During the 2013–2014 academic year, HIPPY operated at 34 elementary schools, covering six of the nine HISD Board Districts, and was staffed by two coordinators and 35 home instructors. The names of the HIPPY school sites for the 2013–2014 academic year are included in **Appendix A** (p. 16). A map of the HIPPY sites by Board of Trustee Districts is in **Appendix B** (p. 17).

The HIPPY Model

The HIPPY program model uses the following strategies: (1) the use of a developmentally-appropriate 30-week curriculum in English or Spanish; (2) the use of role-play as the method of teaching, staffed by part-time home instructors, and supervised by a coordinator; (3) and the use of home visits combined with group meetings to provide parents with the tools and materials that enable them to work directly and effectively with their child (HIPPY USA, n.d). A typical HIPPY program site can serve up to 180 children and their families, with one coordinator and 12 to 18 part-time home instructors.

The HIPPY Curriculum

HIPPY instructional materials are standardized and include story books, weekly activity packets, and manipulatives. There are 30 activity packets for use throughout the school year. A packet for each week

includes approximately 10 activities for parents and children. These activity packets include language development, sensory and perception discrimination skills, and problem solving. The materials are available in both Spanish and English and are designed to enable parents with little or no formal schooling to teach their children successfully.

Home Instructors and Program Coordinator

A typical home instructor provides services up to 15 parents with children. The home instructor's main responsibility is to deliver the curriculum to his/her assigned parents. As such, home instructors are required to schedule their own appointments and meet with their assigned parents at the parent's home once a week for a period of 30 weeks. During a home visit, home instructors provide parents with a packet containing the week's activities. The home instructor engages in role-play with the parents, often using his or her own child. However, the home instructor does not work directly with the child participant.

Home instructors are part-time employees of HISD, and work approximately 20 hours a week. The recruitment procedure for home instructors required that they have (1) a child of appropriate age to engage in the HIPPY curriculum, (2) a Graduation Equivalent Diploma (GED), (3) a valid Texas Drivers License, (4) transportation, and (5) a valid permit to work in the United States. The home instructors received weekly HIPPY training conducted by a full-time HIPPY coordinator. The program coordinator recruited and trained home instructors, organized group meetings, developed enrichment activities, and helped to recruit parents into the program. All home instructors are parents of preschoolers and/or had young children attending the school to which they were assigned.

Staff and Group Meetings

Staff meetings provide home instructors with practice of the week's activities. These meetings allow home instructors to review and practice the role-playing lesson as it will be taught to the parent. Furthermore, home instructors learn from other home instructors and the coordinator about circumstances and situations that may arise while they are training parents. Group meetings were designed to gather parents of HIPPY children to discuss information and provide parents a time to ask questions. These meetings often provided valuable information of available services and local resources that could potentially benefit the families of HIPPY children. In addition, group meetings allowed parents an opportunity to meet with other program participants, to share and learn from each other's experience, and to receive additional support and information from the community.

HIPPY Advisory Board

The six-member HIPPY Advisory Board supports the program in collaboration with the HISD FACE Department. The Advisory Board was developed to help parents achieve expected outcomes related to teaching and learning for their child and themselves in the areas of literacy, self-concept, and interactions in their families, schools, and the community. Additional responsibilities of the HIPPY Advisory Board are to promote HIPPY in the community; assist in the procurement of funds; provide advice regarding planning, implementation, and problem solving; assist with program needs (e.g., special events, guest speakers); and foster cooperative working relationships with resource agencies, community and volunteer groups, and other early childhood/family support programs.

Review of Literature

The role of parents in strengthening the academic achievement of their children has long been recognized as a key to successful early childhood education programs (Hildalgo, Kallemeyn, & Phillips, 2013). The significance of this role is further emphasized in the Family Engagement in Education Act of 2011. The ACT notes that "positive benefits for children, youth, families, and schools are maximized through effective family engagement that . . . is continuous across a child's life from birth through young adulthood" (Family Engagement in Education Act of 2011, Section 3). The research points out that when parents are involved, students have higher grades, test scores, attend school on a regular basis, are more motivated, have higher levels of self-esteem, have lower rates of suspension, and show improved behavior at home and school (Henderson & Mapp, 2002). Hildalgo, Kallemeyn, and Phillips (2013) highlight research on the positive relationship between parental involvement and the children's brain development and school readiness. There are strong indications that the most effective forms of involvement are those which engage parents in working directly with their children on learning activities in the home (Henderson & Mapp, 2002). The research also shows that the earlier in a child's educational process parent engagement begins; the more powerful the effects will be (Kagitcibasi, Sunar, & Bekman, 2001). Early childhood programs with strong parent involvement components have demonstrated the effectiveness of this approach (Jordan, Snow, & Porche, 2000; Mathematica Policy Research, 2001; Starkey & Klein, 2000).

Two of the studies reviewed for this literature focused on the effects of the HIPPY program on student outcomes. In the first study (Baker, Piotrkowski, & Brooks-Gunn, 1998), researchers examined the impact of the HIPPY program in a New York school district. The study followed two cohorts of 182 HIPPY program participants and control-group children over a two-year period (from kindergarten through the first grade). The findings from the study were mixed. In the first cohort, researchers found that HIPPY children outperformed control group children on measures of cognitive skills at the end of kindergarten, on measures of classroom adaptation at the beginning of the first and second grades, and on a standardized reading test at the end of first grade. However, in the second cohort the researchers found no significant differences between the HIPPY participants and the students control group. From their analyses of the data, the researchers concluded that the results may reflect the "variations of the effects of programs within communities (p. 584)," and cautions against generalizing single sample, single-site visit evaluations. Thus, they recommended further studies be conducted to validate the findings.

The second study was a ten-year study conducted by researchers in Turkey (Kagitcibasi et al., 2001). In this study, participants were randomly assigned to one of four settings: a HIPPY program, home care provided by mothers with no support, childcare without education, and educational nursery schools. The study found that in the short term, children in both HIPPY and nursery school settings made greater gains than children in the other two groups. However, seven years after completing the programs, HIPPY children showed greater gains in reading and math than children in the other three groups. The study also found that these students were more likely to stay in school than their counterparts.

Methods

Data Collection and Analysis

- Student enrollment, demographic characteristics, and academic performance data for the evaluation were obtained using a variety of sources. First, an electronic database of three to five-

year old children who participated in HISD HIPPY during the 2013–2014 academic year was acquired from HISD HIPPY administrative staff. Next, HISD student enrollment was verified using the Public Education Information Management System (PEIMS). Data on children who were verified as HISD students based on PEIMS were used in this analysis to form the HISD HIPPY student cohorts. Identification of student cohorts from previous years was obtained from archival data files acquired from HIPPY program administrators and previous HIPPY evaluations (HISD Department of Research & Accountability, 2013).

- Given the small number of students who took the Stanford 10 in spring 2014 at first, second, and third grades (less than five), reading and mathematics test results were reported for students who took the spring 2014 Aprenda 3. Students classified as English language learners (ELL) in grades kindergarten to eight who received reading and language arts instructions in Spanish are typically administered the Aprenda 3. Academic performance analysis included students in the 2010–2011 and the 2011–2012 cohorts because there were sufficient numbers of students tested at each grade level to make performance comparisons. HISD HIPPY student cohort performance was compared to district wide student performance at comparable grade levels using normal curve equivalent (NCE) scores. NCE scores allow the comparison of student performance from different test administrations, and the NCE units have the same meaning across tests, subtests, and grade levels.

- Parental Involvement Survey results were analyzed for parents who participated in the program during the 2013–2014 school year. The survey was administered by staff at the University of North Texas in the fall of 2013 and spring 2014 in a pre and post format. Likert-scale questions related to the child's literacy development were included on the survey. The data obtained from the completed surveys were analyzed using the Statistical Package for Social Sciences (SPSS). Descriptive statistics (both frequencies and percentages) were then used to summarize parents' responses.

- Bracken School Readiness Assessment (BSRA®) is an individual, standardized, cognitive test developed by Pearson Education, Inc. The assessment is designed for children in prekindergarten through second grade. The test was administered as a pre- post-test in the fall 2013 and spring 2014 by the University of North Texas to HISD HIPPY three to five year olds. The assessment measured six basic skills: (1) colors – identification of common colors by name; (2) letters – identification of upper-case and lower-case letters; (3) numbers/counting – identification of single and double-digit numerals, and counting objects; (4) Sizes – demonstration of knowledge of words used to depict size (e.g., tall, wide, etc.); (5) comparisons - matching or differentiation of objects based on a specific characteristic; and (6) shapes – identification of basic shapes by name (Think Tonight, 2014). Descriptive statistics were calculated. Paired t-test analysis also was conducted for children with both pre- and post-assessment data based on the number of items that students answered correctly.

Results

What were the participation trends of children who participated in HISD HIPPY over the past five years (2009–2010 through 2013–2014)?

    Figure 1 reflects the total number of three to five-year old children who participated in HISD HIPPY over the past five years. In addition, Figure 1 depicts HIPPY students who also were enrolled in HISD elementary schools during the designated academic years.

- The number of three to five-year old children who participated in HISD HIPPY fluctuated moderately from 2009–2010 to 2012–2013; however, participation more than doubled over the past two years (2012–2013 to 2013–2014).

Figure 1. HISD HIPPY Participation, 2009–2010 through 2013–2014
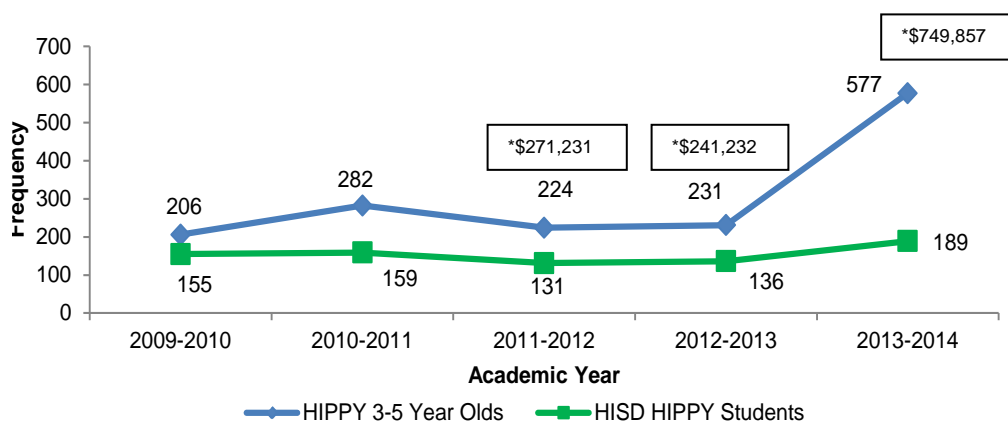
*Annual Budget

- The proportion of HISD HIPPY participants who were also HISD students was 32.8 percent during the 2013–2014 academic year, down from 56 to 75 percent during the previous four years.

- Additional demographic characteristics of HIPPY students enrolled in HISD schools from 2011–2012 to 2013–2014 can be found in **Appendix C**, **Table 1** (p. 18) to show longitudinal trends.

- Among the 577 children who participated in HISD HIPPY during the 2013–2014 academic year, 189 were identified as HISD students. The majority of the students were female (56.1 percent) and Hispanic (74.6 percent). Additionally, 65.6 percent of the students were limited English proficient (LEP), 97.9 percent at-risk of dropping out of school, while 95.8 percent were economically disadvantaged.

- There was fluctuation in the ethnic composition of HIPPY HISD students over the past three years. One of the most notable trends was a decrease in the proportion of Hispanic students by 18.2 percent from 2012–2013 to 2013–2014, while the percentage of African American students more than

doubled (from 8.1 percent to 23.3 percent). In addition, the percentage of LEP students decreased from 78.7 percent to 65.6 percent over the same time period (Appendix C, p. 18).

- There was a slightly higher percentage of at-risk students in 2013–2014 (97.9 percent) than in the previous two years (91.6 percent and 94.9 percent, in the respective years) (Appendix C, p. 18).

- Figure 1 shows the budget allocation for HIPPY over the past three years. Data for previous years were unreliable; therefore, were not included in this report. The 2012–2013 budget allocation was lower than the previous year due to funding for a $30,000 assistant coordinator. The 2013–2014 budget allocation of $749,857 was more than twice the amount than the previous year's budget.

What enrichment activities were offered for HISD HIPPY participants during the 2013–2014 academic year?

HISD HIPPY students and parents, typically, were provided enrichment activities in addition to home instruction lessons throughout the academic year. The activities were designed to encourage parents to be more involved in their child's learning and to develop leadership skills. In June 2014, the HISD Family and Community Engagement Department sponsored four *End of Year HIPPY Celebratios* (end-of-year celebrations) for over 1,500 HIPPY students, parents, and their family members. The events were hosted at Stevenson Middle School, Barbara Jordan High School, Sam Houston High School, and DeBakey High School. The guest speakers for the four events were Board Members: Manuel Rodriguez, Anna Eastman, and HIPPY school administrators. Principals and/or their representatives from the 35 HISD HIPPY schools recognized the dedication and achievements of the parents and children from their respective campuses. Each family participating in the HIPPY program was given a certificate of completion. This annual event provided the parents and the children with a sense of accomplishment for their hard work throughout the school year. Refreshments and transportation were provided by the FACE Department and Summer Reading Backpack Packages were donated by the National Council of Jewish Women. Free tickets were distributed to families from the Children's Museum of Houston.

How did HISD HIPPY student cohorts (2010–2011 and 2011–2012) perform on the spring 2014 administration of the Aprenda 3?

Figures 2 and **3** present the mean normal curve equivalents (NCEs) of the 2010–2011 HISD HIPPY student cohort compared to students districtwide at comparable grade levels on the 2014 Aprenda 3 reading and mathematics subtests. Test results of 28 first grade, 60 second grade, and 11 third-grade HIPPY students were included in the analysis.
- Figure 2 shows a higher mean NCE for the 2010–2011 HISD HIPPY cohort compared to HISD students at comparable grade levels on the 2014 Aprenda 3 reading subtest. The largest difference between HIPPY cohort students and HISD students was at third grade by 10.6 NCEs.
- The 2010–2011 HISD HIPPY cohort outperformed the District on the Aprenda 3 mathematics subtest, with the largest difference between the groups noted at third grade by 7.8 NCEs (Figure 3).

Figure 2. 2014 Aprenda 3 Reading Performance, 2010–2011 HISD HIPPY Cohort vs. HISD Students at Comparable Grade Levels
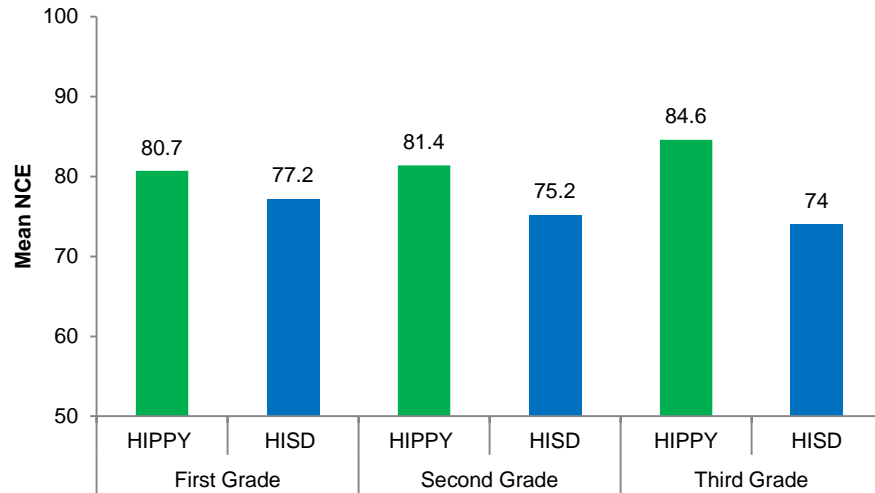
Figure 3. 2014 Aprenda 3 Math Performance, 2010–2011 HISD HIPPY Cohort vs. HISD Students at Comparable Grade Levels
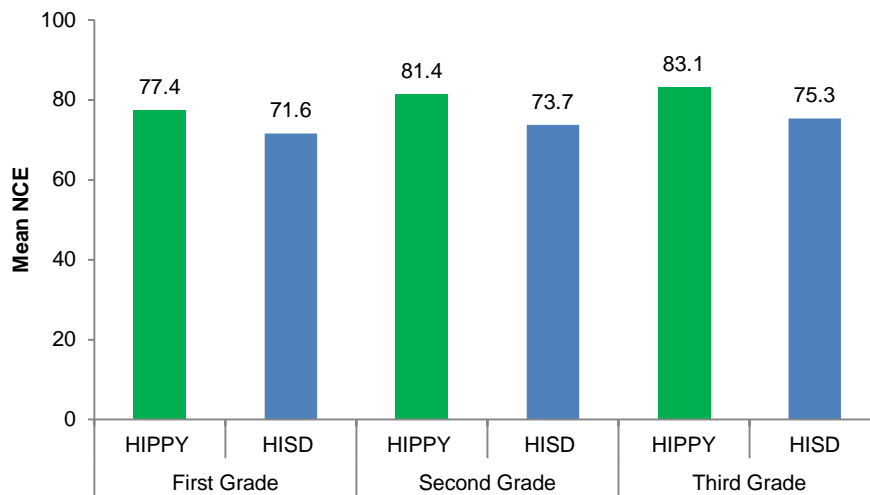
- Spring 2014 Aprenda reading and mathematics results were analyzed for a total of 62 first and second-grade students in the 2011–2012 HISD HIPPY student cohort. Both student groups outperformed the district on both subtests. The largest difference between HIPPY and HISD students was at second grade in reading and math (9.1 NCEs and 12.7 NCEs, respectively).

Figure 3. 2014 Aprenda 3 Reading Performance, 2011–2012 HISD HIPPY Cohort vs. HISD Students at Comparable Grade Levels
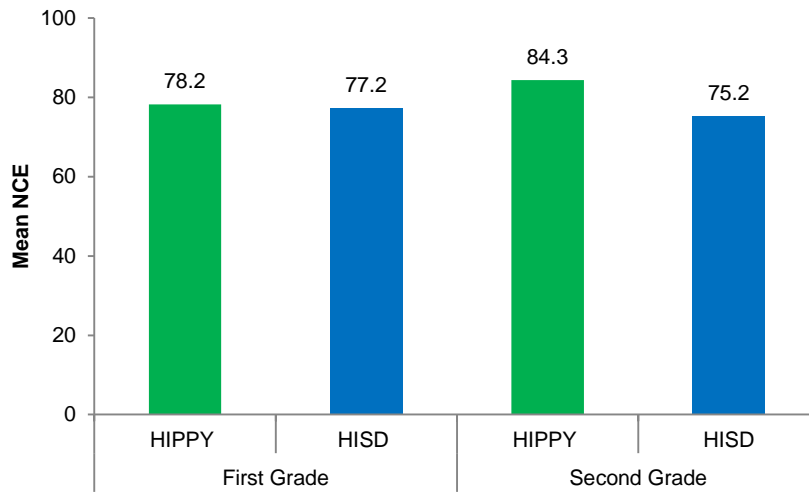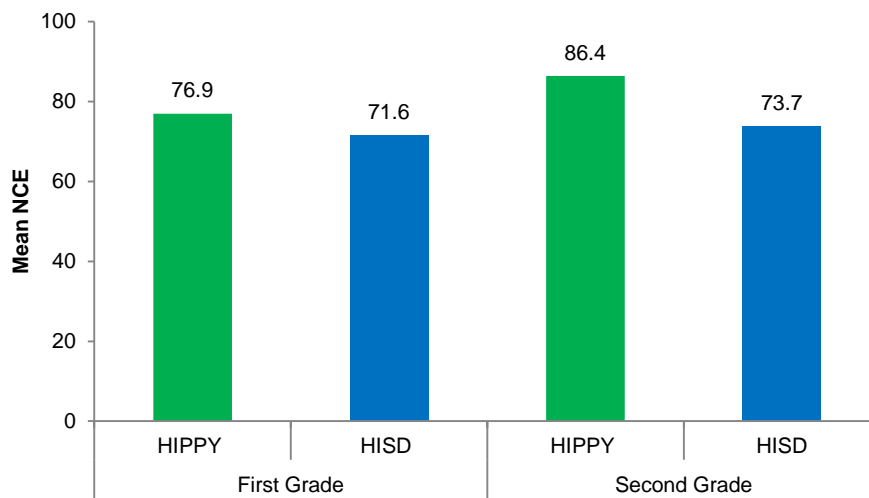

Figure 4. 2014 Aprenda 3 Mathematics Performance, 2011–2012 HISD HIPPY Cohort vs. HISD Students at Comparable Grade Levels

How did parental involvement activities influence literacy development of the HISD HIPPY participants during the 2013–2014 academic year?

The HIPPY Parental Involvement Survey, administered by the University of North Texas, was used to assess the influence of parental involvement activities on the child's literacy development. A matched-paired design yielded a sample of 375 parents with both pre- and post-survey results during the 2013–

2014 school year. All of the survey results are presented in **Appendix D** (p. 19 – 22).

- **Figure 5** reveals that the mean number of books that the child had access to, including books shared with brothers and sisters, increased by 16 books from pre- to post-survey (25 vs. 41).

- The average number of minutes each day that the parent or someone in the family read to the child increased by 6 minutes (20 vs. 26) (Figure 5).

- **Figure 6** shows, at pre-survey, 20 percent of parents indicated that they or someone read to the child "every day" in the past week. This percentage increased to 34.7 percent at post-survey.

Figure 5. Mean number of books child read and time child spent reading, Parental Involvement Survey, 2013–2014
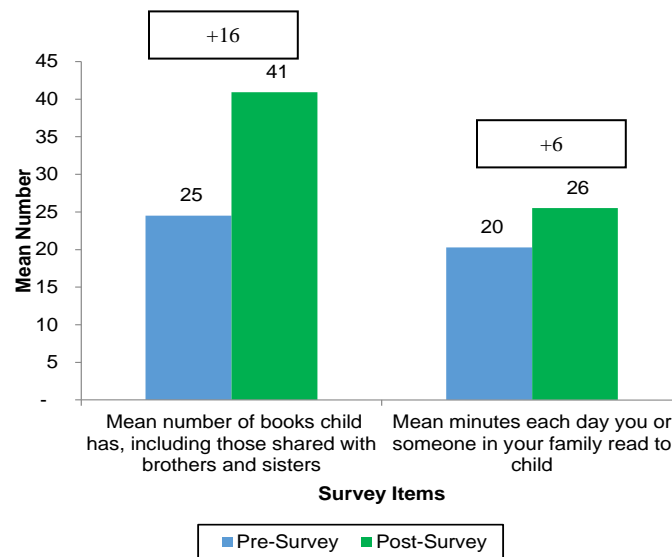
Figure 6. Percent that parent or someone in the family read to (child) in the past week, Parental Involvement Survey, 2013–2014
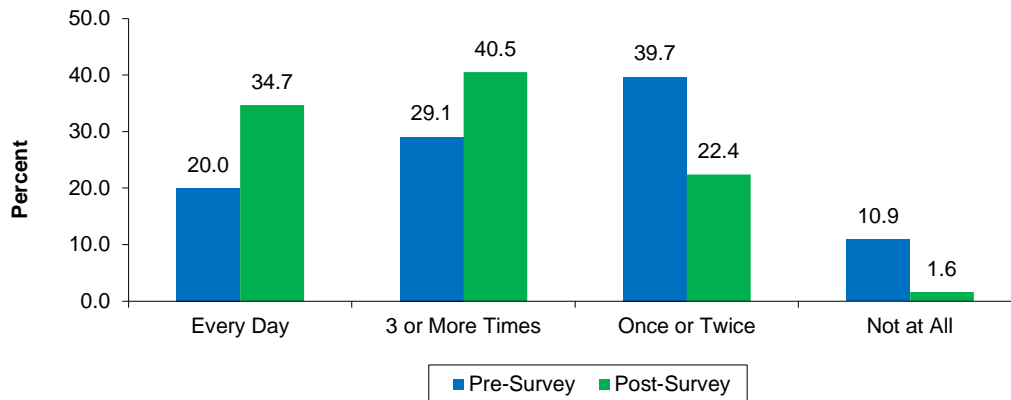
Figure 7. The percent of parents who responded "usually" to engagement items on the Parental Involvement Survey, 2013–2014

"When you or someone in your family reads to (child), how often do you…..?"

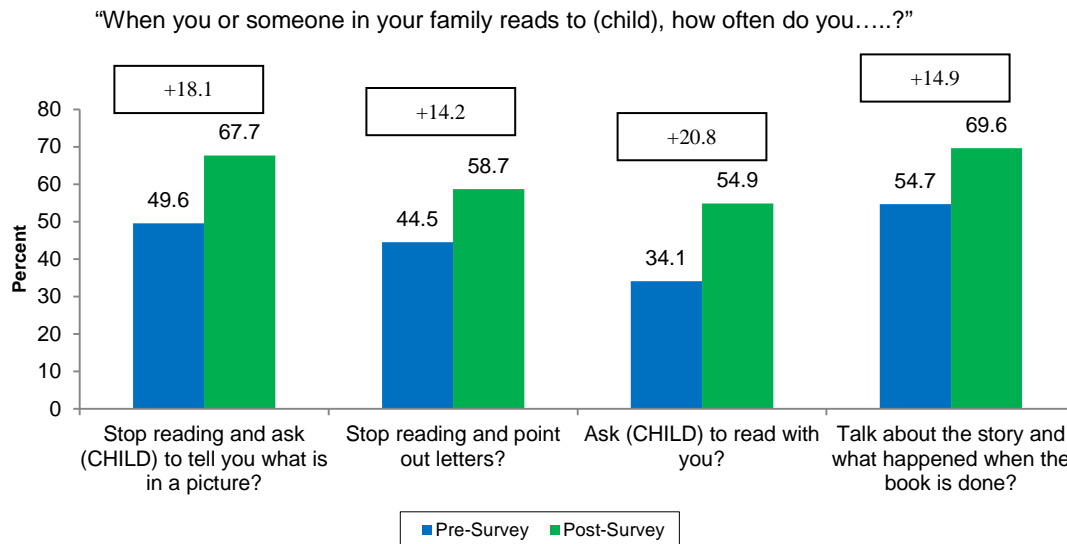- **Figure 7** shows responses related to engagement with the child by the parent or someone in the family during reading activities. The percent of parents who responded "usually" to related items are presented. Other responses (i.e., "never," "sometimes," and "no response") are included in Appendix D, **Table 3**.
- There was an increase in the percentage of responses of "usually" in all areas from pre-survey to post-survey, with the largest increase involving the parent asking the child to read with them (+20.8 percentage points).
- **Table 4** (Appendix D, p. 21) reflects increases in the percentages of parents who indicated, in the past week, that they told their child a story, taught the child letters, words, or numbers; taught songs or music; did arts and crafts; played sports, active games, or exercised; played board games or puzzles, and worked on other projects that were not considered a chore with their child from pre- to post-survey. Taught him/her letters, words, or numbers had the highest rate of 97.3 percent on the post-test, while played games or did puzzles had the greatest increase of 21.3 percentage points.
- **Table 5** (Appendix D, p. 22) shows a higher proportion of parents who indicated visiting a library; visiting a bookstore; going to a play, concert, or other live show; visiting an art gallery, museum, or historical site; visiting a zoo or aquarium; attending an athletic or sporting event (outside of school, in which the child was not a player); and talking with their child about the family history or ethnic heritage from the pre- to post-survey.

How did children perform on the Bracken School Readiness Assessment (BSRA®) during the 2013–2014 academic year?

The BSRA® was used to measure school readiness skills of the 207 HISD HIPPY children. Students with both pre- and post-assessment measures were included in the paired t-test analysis. All of the findings from the BSRA® analysis can be found in **Appendix E** (p. 23).

- **Figure 8** shows an increase in the mean number of items correct of the student sample on all

of the BSRA® school readiness subscales from pre- to post-assessment. The mean differences in pre- and post-assessment results were identifying sizes (4.2), shapes (3.6), numbers (3.4), letters (2.1), and colors (2.0). There was also an increase in the mean School Readiness Composite Score from pre- to post-assessment (15.4). Mean differences on the subscales were statistically significant (p < .001).

Figure 8. Bracken (BSRA®) results of the 2013–2014 HISD HIPPY student sample
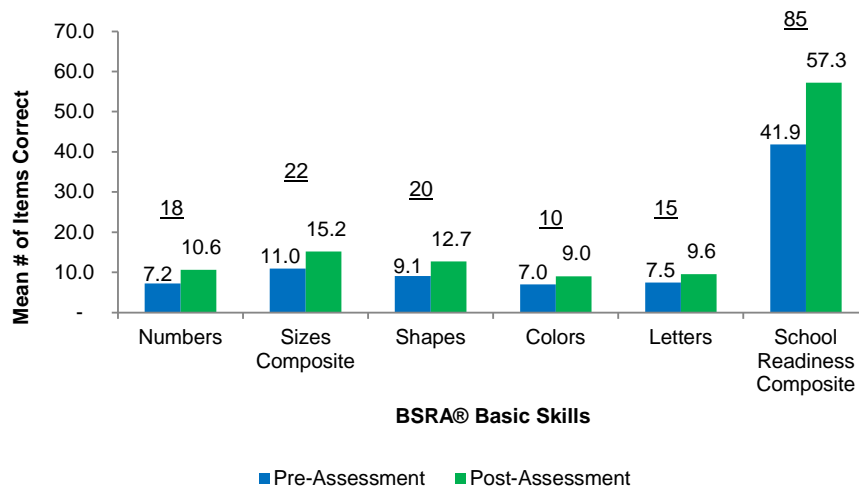
Note: Number of assessment items in each subscale is indicated above the subscale.

What was the cost-benefit of the HISD HIPPY program for the 2011–2012 student cohort?

Cost-benefit analysis was limited in this report. Specifically, the 2011–2012 HISD HIPPY student cohort relative to the performance of District-level peers at the same grade levels on the 2014 Aprenda 3 data were used in the analysis (**Figure 9**). The budget allocation for the 2011–2012 academic year was $271,231. Per pupil expenditure in HIPPY for 224 students was $1,211. For a per student cost of $1,211, there is an expected gain of 1 point in reading and 5.3 points in mathematics at first grade relative to the District. This benefit extends to an average gain of 9.1 points in reading and 12.7 points in mathematics at second grade.

Figure 9. Aprenda 3 reading and mathematics differentials, 2011–2012 HIPPY student cohort vs. the District, by grade level
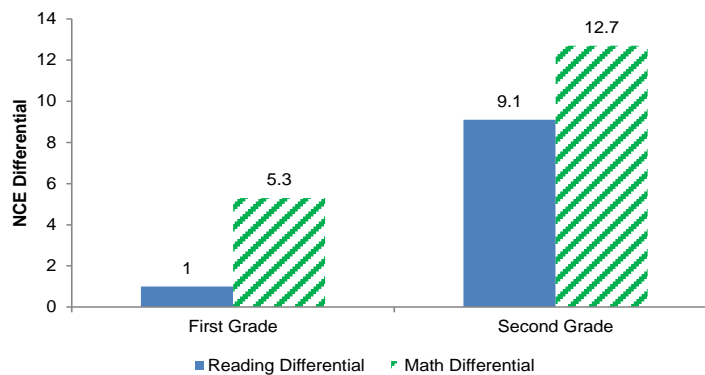
Discussion

HIPPY was designed to assist parents from disadvantaged backgrounds with educational opportunities to prepare their child for school. HIPPY programs operated in 34 elementary schools during the 2013–2014 academic year, compared to 12 elementary schools during the previous year. In the current year, funding for the program more than doubled from the previous year to cover program expansion.

Academic performance of HISD HIPPY participants was assessed using student cohorts at specific grade levels that had sufficient data on the 2014 Aprenda 3 test to generate reliable results. Overall, the 2010–2011 HISD HIPPY student cohort outperformed the District in reading and mathematics at first, second, and third grades; while the 2011–2012 student cohort outperformed the District at first and second grade. Moreover, results on the Bracken School Readiness Assessment indicated that student participants are developing literacy skills and becoming school ready as evidenced by increases in student's ability to identify colors, numbers, shapes, sizes, as well as to count and to make comparisons.

Parental Involvement Survey results highlighted the program's efforts to actively engage parents in their child's education. Specifically, a higher percentage of parents reported that they or someone in the family read to their children from pre- to post-survey. Parents also reported that their child had more exposure to books and reading.

Based on the results of this evaluation, the HISD HIPPY program is promoting school readiness and early literacy skills among student participants. In addition, parents seem to be more prepared to facilitate and support their child's future learning. Continued longitudinal analyses of the academic performance of HISD HIPPY student cohorts may strengthen the evidence of the program's impact on school readiness as students progress through school. Future evaluations also may compare the academic performance of HISD HIPPY students to the performance of students who did not participate in the program, preferably at the same schools.

Recommendations

1. Due to the positive academic achievement outcomes of HIPPY students, the District should continue to support the HISD HIPPY program. The program facilitates school readiness and literacy development in preschool children.

2. HISD should consider expanding the HIPPY program to additional elementary school sites to address the literacy needs of more economically-disadvantaged students across the District.
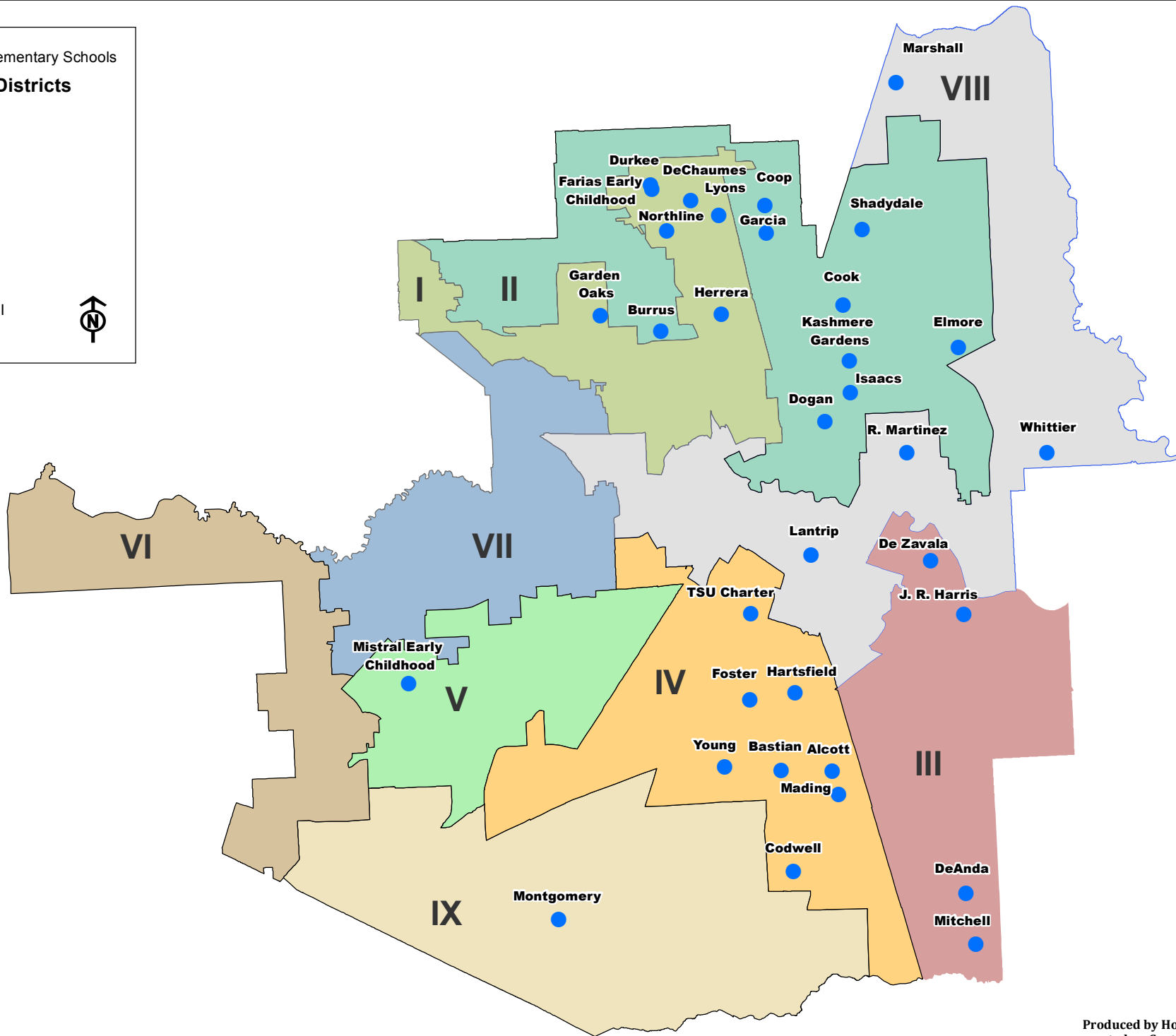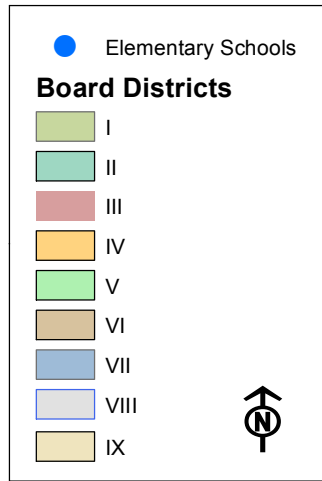
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Appendix A

	2013-2014 HIPPY HISD School Sites
1	Burrus ES
2	Cook ES
3	Coop ES
4	De Anda ES
5	De Chaumes ES
6	De Zavala ES
7	Dogan ES
8	Durkee ES
9	Elmore ES
10	Farias ECC
11	Garcia ES
12	Garden Oaks ES
13	Harris JR ES
14	Herrera ES
15	Isaacs ES
16	Kashmere Gardens ES
17	Lantrip ES
18	Lyons ES
19	Martínez RC ES
20	Mitchell ES
21	Northline ES
22	Shadydale ES
23	Alcott ES
24	Bastian ES
25	Codwell ES
26	Foster ES
27	Hartsfield ES
28	Mading ES
29	Marshall ES
30	Mistral ECC
31	Montgomery ES
32	TSU Charter Lab School
33	Whittier ES
34	Young ES

Appendix B
2012–2013 HIPPY School Sites by Board Districts

HIPPY School Sites 2013-2014

Legend

- ● Elementary Schools

Board Districts
- I
- II
- III
- IV
- V
- VI
- VII
- VIII
- IX

N

VIII

Marshall

Durkee
DeChaumes
Coop
Farias Early
Childhood
Lyons
Northline
Garcia
Shadydale

I   **II**

Garden
Oaks
Herrera
Cook

Burrus
Kashmere
Gardens
Elmore

Isaacs

Dogan
R. Martinez
Whittier

Lantrip
De Zavala

VI   **VII**

J. R. Harris

TSU Charter

Mistral Early
Childhood
Foster   Hartsfield

V   **IV**

Young   Bastian   Alcott
Mading

III

Codwell

DeAnda

IX

Montgomery

Mitchell

Appendix C

Table 1. Demographic Characteristics of HISD Students Who Participated in the HISD HIPPY Program Past Three Academic Ye
2011–2012 through 2013–2014

Subgroup	Academic Year					
	2011–2012 (N = 224)		2012–2013 (N = 231)		2013-2014 (N = 577)	
	n	Percent	n	Percent	n	Percent
Total	**131**	**100.0**	**136**	**100.0**	**189**	**100.0**
Gender						
Male	63	48.1	70	51.5	83	43.9
Female	68	51.9	66	48.5	106	56.1
Ethnicity						
Asian	2	1.5	-	-	2	1.1
African American	12	9.2	11	8.1	44	23.3
Hispanic	117	89.3	124	91.2	141	74.6
White	-	-	-	-	2	1.1
Two or More Races	-	-	1	0.7	-	-
Grade						
EE	2	1.5				
PK	90	68.7	82	63.2	165	87.3
K	39	29.8	49	36.0	18	9.5
First	-	-	1	0.7	1	.5
Second	-	-	-	-	1	.5
Third	-	-	-	-	1	.5
Fourth	-	-	-	-	3	1.6
Limited English Proficiency	104	79.4	107	78.7	124	65.6
Economically Disadvantaged	125	95.4	135	99.3	181	95.8
At-Risk	120	91.6	129	94.9	185	97.9

Appendix D
Parental Involvement Pre- and Post-Survey Results

Table 2: How many times have you or someone in your family read to (CHILD) in the past week?	Pre		Post	
	n	%	n	%
3 or more times	109	29.1	152	40.5
Every day	75	20.0	130	34.7
Not at all	41	10.9	6	1.6
Once or twice	149	39.7	84	22.4
No Response	1	0.3	3	0.8
Total	375	100.0	375	100

Appendix D (cont'd)
Parental Involvement Pre- and Post-Survey Results

Table 3: When you or someone in your family reads to (CHILD), how often do you:		Pre				Post			
(n = 375)		Never	Sometimes	Usually	No Response	Never	Sometimes	Usually	No Response
Stop reading and ask (CHILD) to tell you what is in a picture?	n	49	139	186	1	0	117	254	4
	%	13.1	37.1	49.6	0.3	0	31.2	**67.7**	1.1
Stop reading and point out letters?	n	91	115	167	2	13	138	220	4
	%	24.3	30.7	44.5	0.6	3.5	36.8	**58.7**	1.1
Ask (CHILD) to read with you?	n	119	126	128	2	21	144	206	4
	%	31.7	33.6	34.1	0.5	5.6	38.4	**54.9**	1.1
Talk about the story and what happened when the book is done?	n	58	111	205	1	3	107	261	4
	%	15.5	29.6	54.7	0.3	.8	28.5	**69.6**	1.1

Appendix D (cont'd)
Parental Involvement Pre- and Post-Survey Results

Table 4: In the past week, has anyone in your family done the following things with (CHILD)?:		Pre			Post			
(n = 375)		Yes	No	NR	Yes	No	NR	Percentage-Point Change in "Yes"
Told him/her a story?	n	294	78	3	344	28	3	
	%	78.4	20.8	.8	**91.7**	7.5	.8	**+13.3**
Taught him/her letters, words, or numbers?	n	301	61	4	365	10	0	
	%	82.7	16.3	1.1	**97.3**	2.7	0.0	**+14.6**
Taught him/her songs or music?	n	292	80	3	319	54	2	
	%	77.9	21.3	.8	**85.1**	14.4	.5	**+7.2**
Did arts and crafts (for example, coloring, painting, pasting, or using clay)?	n	288	85	2	341	33	1	
	%	76.8	22.7	.5	**90.9**	8.8	.3	**+14.1**
Played sports, active games, or exercised together?	n	257	113	5	316	59	0	
	%	68.5	30.1	1.4	**84.3**	15.7	0.0	**+15.8**
Played board games or did puzzles with him/her?	n	211	156	8	291	84	0	
	%	56.3	41.6	2.1	**77.6**	22.4	0.0	**+21.3**
Worked on another type of project with (CHILD) that you didn't think of as a chore – like building, making or fixing something?	n	214	156	5	272	99	4	
	%	57.1	41.6	1.3	**72.5**	26.4	1.1	**+15.4**

Table 5: In the past month, has anyone in your family done the following things with (CHILD)?:							
(n = 375)		Pre			Post		
		Yes	No	NR	Yes	No	NR
Visited a library?	n	80	292	3	169	204	2
	%	21.3	77.9	.8	45.1	**54.4**	.5
Visited a bookstore?	n	68	305	2	145	227	3
	%	18.1	81.3	.5	38.7	**60.5**	.8
Gone to a play, concert, or other live show?	n	62	309	4	139	232	4
	%	16.5	82.4	1.1	37.1	**61.9**	1.1
Visited an art gallery, museum, or historical site?	n	63	308	4	150	219	6
	%	16.8	82.1	1.1	40.0	**58.4**	1.6
Visited a zoo or aquarium?	n	161	212	2	202	163	10
	%	42.9	56.5	.5	**53.9**	43.5	2.7
Attended an event sponsored by a community, religious, or ethnic group?	n	79	290	6	214	160	1
	%	42.9	56.5	.5	**57.1**	42.7	.3
Attended an athletic or sporting event (outside of school) in which (CHILD) was not a player?	n	79	290	6	152	222	1
	%	21.1	77.3	1.6	40.5	**59.2**	.3
Talked with (CHILD) about his/her family history or ethnic heritage?	n	167	206	2	216	154	5
	%	44.5	54.9	.5	**57.6**	41.1	1.3

Appendix E
Bracken (BSRA®) Results, 2013–2014

	Mean # of Items Correct	Mean Diff	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference		t	n	p
					Lower	Upper			
Pre Numbers	7.2	3.401	4.909	.341	4.074	2.728	9.968	206	.000
Post Numbers	10.6								
Pre Sizes	11.0	4.214	5.179	.361	4.925	3.502	11.677	205	.000
Post Sizes	15.2								
Pre Shapes	9.1	3.580	4.494	.312	4.196	2.964	11.460	206	.000
Post Shapes	12.7								
Pre Colors	7.0	2.029	3.024	.210	2.443	1.615	9.653	206	.000
Post Colors	9.0								
Pre Letters	7.5	2.082	4.278	.297	2.668	1.496	7.003	206	.000
Post Letters	9.6								
Pre School Readiness Composite	41.9	15.383	15.241	1.062	17.477	13.290	14.487	205	.000
Post School Readiness Composite	57.3								

- Colors: # of items correct on colors subscale (out of 10 items)
- Letters: # of items correct on letters subscale (out of 15 items)
- Numbers: # of items correct on numbers subscale (out of 18 items)
- Sizes Comp: # of items correct on sizes/comparisons subscale (out of 22 items)
- Shapes: # of items correct on shapes subscale (out of 20 items)
- SRC: School Readiness Composite, which is total number of items correct, the sum of all subscale scores (out of 85 items)
- Std Score: the child's standardized score compared with the publisher's normative database. A standard score of 85 or above is considered "ready for school" for that age.