Assessment of the Learning Outcomes and Parents' Opinion

of the

Home Instructions for Parents of Preschool Youngsters (HIPPY) in Alabama

Yanyi K. Djamba, Ph.D.

Director of the Center for Demographic Research (CDR)

Professor of Sociology

Auburn University at Montgomery

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ABRIDGED REPORT

Executive Summary

This report presents the results of the evaluation of the data obtained from three survey questionnaires administered as part of the Home Instructions for Parents of Preschool Youngsters (HIPPY) conducted in Alabama during the period of 2008-2012. The three survey questionnaires examined are:

1. The Kindergarten Readiness Test (KRT), which determines the extent to which children have developed the necessary competencies in key learning areas (e.g., vocabulary, phonemic awareness, identifying letters, visual discrimination, comprehension and interpretation, and mathematical knowledge) (http://www.ststesting.com/krt_des.html).
2. The Peabody Picture Vocabulary Test (PPVT) is one of the most commonly used assessment tests that measure verbal ability in standard American English vocabulary (http://www.brighthubeducation.com/special-ed-learning-disorders/13495-what-is-the-peabody-picture-vocabulary-test-all-about/; http://www.sailawaylearning.com/node/18).
3. Parents Survey, which assesses parents' opinion of HIPPY program.

This abridged report focuses on state level analysis. State level results show that HIPPY programs are very beneficial to early learning among participating children. This is shown in terms of KRT and Peabody test scores, as well as parents' opinion survey data. Here are the key findings:

1. Data from the KRT analysis show that children who participated in the HIPPY program increased their learning skills. The comparison of pre- and post-test scores shows significant improvements at all ages (3, 4, and 5) and for all the three school years examined in this report (2009-2010, 2010-2011, and 2011-2012).
2. Data from Peabody raw scores also show consistent improvements. Children of all ages (3, 4, and 5) registered significant increases in their raw score results between pre- and post-tests during all the three school years examined here (2009-2010, 2010-2011, and 2011-2012).
3. The results from the parents are very positive. More than 90 percent of parents said that the HIPPY program was useful to their children and that they would recommend it to other parents. The overwhelming majority of parents also gave HIPPY Alabama an "A".

The remainder of this report is divided into five sections. The first section presents the methodological note with samples of the study areas. The subsequent three sections (sections 2-4) contain the results in chart formats. Section 2 contains the results of KRT analysis and section 3 shows the Peabody results. Section 4 displays the results of the Parent Survey. Section 5 includes detailed statistical tables. These tables show the same results as in the charts, plus level of significance.

Section I. Methodological Note

The data analyzed in this report came from HIPPY Alabama. To prepare data for analysis, we created three data set files in SPSS (Statistical Package for Social Sciences) software. Then, we entered the data and cleaned before performing the analysis. There were some challenges.

Some people used slightly different survey questionnaires during pre- and post-tests. For example, in some Kindergarten Readiness Tests (KRT), the total number of responses was different in pre-test and post-test instruments. Moreover, some counties administered only either pre-test or post-test, but not both. There were missing tests on some years for some counties. In Peabody data, some counties used the fourth edition whereas others used the third edition. In order to compare data across counties and places, we excluded missing values and cases that were incomplete or where pre- and post-tests were based on different variables.

A total of 2,057 cases were analyzed in the KR data set, compared to 2,728 cases in the Peabody data set. The size of the parent sample was smaller, at 945 cases. The analysis was based on average values at the county and state levels. Therefore, we used T-test statistic to determine the level of significance between pre- and post- test values in the KR and Peabody tests. The results from the Parent Survey were overwhelmingly significant that we did not report any statistical level for such findings. Tables 1 and 2 show the lists of participating counties.

Table 1. List of Participating Counties for KR Tests

	Kindergarten Readiness		
County	2009-2010	2010-2011	2011-2012
Baldwin	√*	na	na
Barbour	√	na	√
Calhoun	√	na	na
Clarke	√	√	√
Clay	√	√	na
Colbert	**	na	***
Conecuh	√	√	√
Dallas	√	na	√
DeKalb	√	√	√
Elmore	na	√	√
Escambia	na	√	√
Hale	na	√	na
Houston	na	na	√
Lauderdale	na	√	na
Lowndes	na	na	√
Macon	√	na	na
Marshall	na	√	√
Mobile	na	√	√
Monroe	na	√	√
Montgomery	√	na	√
Perry	√	√	√
Shelby	na	na	***
Talladega	na	na	√
Walker	√	√	na
Wilcox	na	na	√

√ = Complete information.

na = not available.

*Count was too small to capture data.

**Pre-test scores and maximum values not specified.

***Pre-test and post-test maximum values not specified.

Table 2. List of Participating Counties for Peabody Tests

	Peabody Raw Scores				Peabody Standard Scores			
County	2008-2009	2009-2010	2010-2011	2011-2012	2008-2009	2009-2010	2010-2011	2011-2012
Baldwin	na	na	na	√	na	√	na	√
Calhoun	√	√	na	√	√	√	na	√
Clarke	na	√	√	√	na	√	√	√
Clay	na	√	na	na	na	na	na	na
Conecuh	na	√	√	√	na	√	√	√
Coosa	na	na	na	na	na	*	na	na
Dallas	na	√	na	√	na	√	na	√
DeKalb	na	√	√	√	na	√	√	√
Elmore	na	na	√	√	na	na	√	√
Escambia	na	na	√	√	na	na	√	√
Hale	na	na	na	√	na	na	na	√
Houston	na	na	na	√	na	na	na	√
Jefferson	na	na	na	na	na	na	√	na
Lowndes	na	na	na	√	na	na	na	√
Madison	na	na	na	*	na	na	na	na
Marshall	na	na	na	√	na	na	√	√
Mobile	na	na	√	√	na	na	na	√
Monroe	na	√	√	√	na	√	√	√
Montgomery	√	√	√	√	√	√	√	√
Perry	na	na	na	√	na	na	na	√
Shelby	na	na	na	√	na	na	na	√
Talladega	na	na	na	√	na	na	na	√
Walker	na	√	√	na	na	√	√	na

*No age specified

√ = Complete information.

na = not available.

Section 2. Kindergarten Readiness Tests

The results presented in this section measure the change in children's scores of Kindergarten Readiness tests in the last three school years. The data are presented in chart format. All differences between the average pre- and post-tests chart scores shown in Figures 1-3 below are statistically significant, suggesting that the instructions children received had an impact on their knowledge acquisition. Since all post-test scores were higher than the corresponding pre-test scores, these results show that the impact was significantly positive.

Fig. 1
Average Scores of Kindergarten Readiness Tests Among 3 Year Old Children in Selected Counties, Alabama

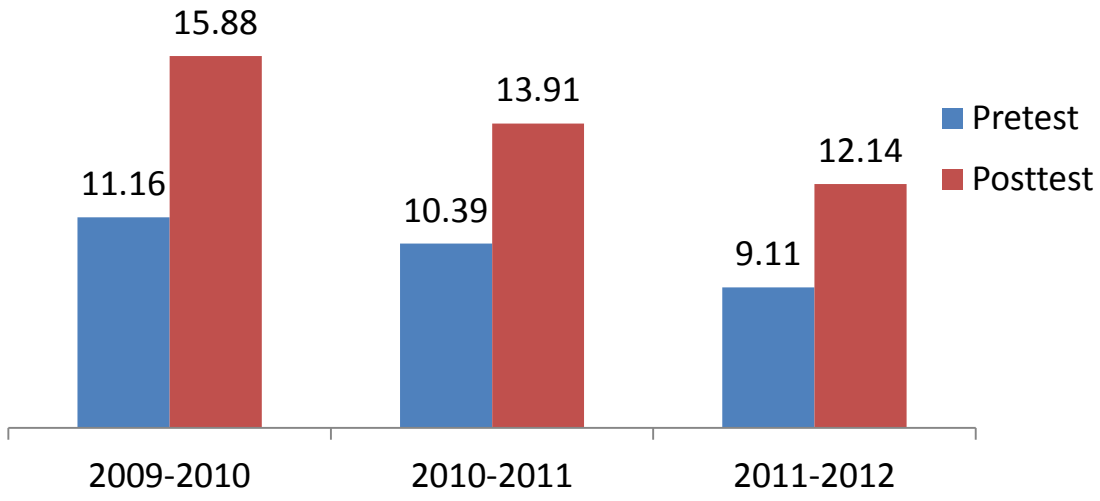
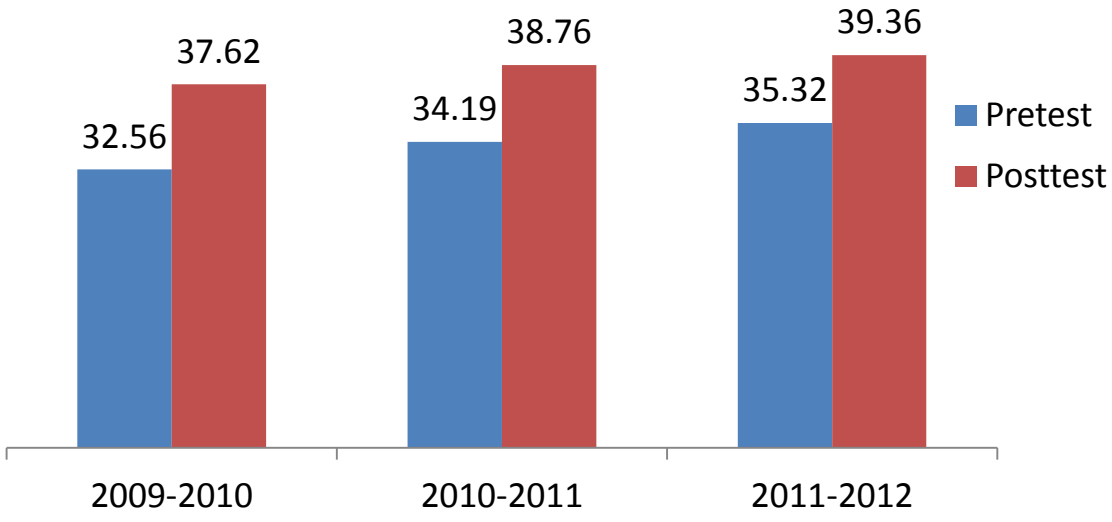
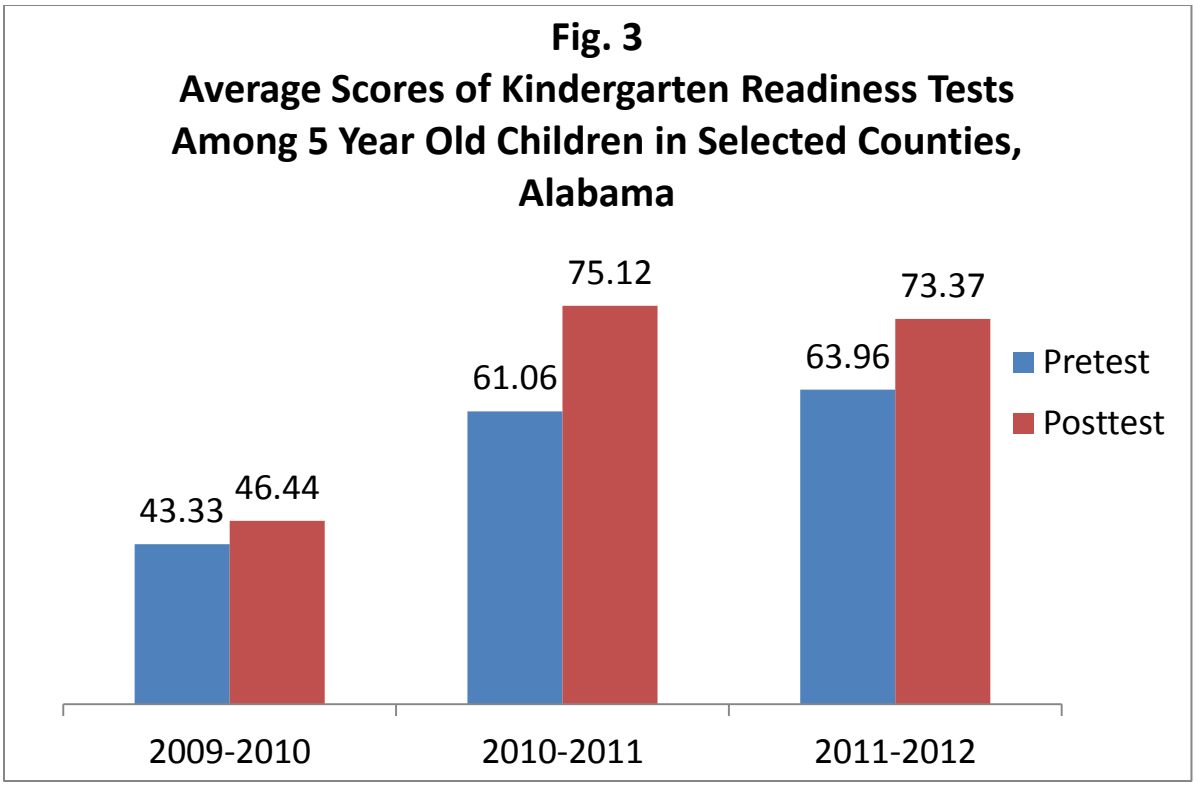


Fig. 2
Average Scores of Kindergarten Readiness Tests Among 4 Year Old Children in Selected Counties, Alabama





Section 3. Peabody Tests

The results presented in this section measure the change in children's Peabody Picture Vocabulary Test (PPVT) scores in the last three school years. The results are presented in terms of average raw scores and average standard scores. However, we interpret only the raw scores, which are more comparable to other standardized tests than the standard scores (http://www.bu.edu/autism/files/2010/03/Condouris-Myer-Tager-Flusberg-20031.pdf). All differences between the average pre- and post-test standard scores shown in Figures 1A, 2A, and 3A below are statistically significant. Such results suggest that the instructions children received significantly increased their picture and vocabulary skills. Figures 1B, 2B, and 3B are for the standard PPVT scores and are included alongside the raw score charts in the full report.

Fig. 1A
Average Raw Scores of Peabody Tests Among 3 Year Old Children in Selected Counties, Alabama

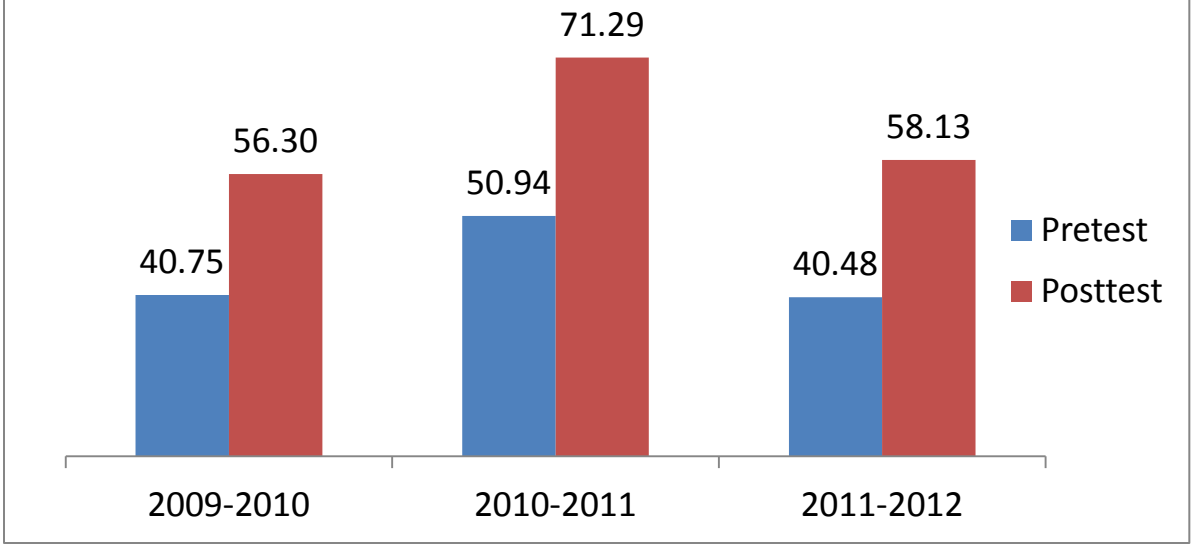
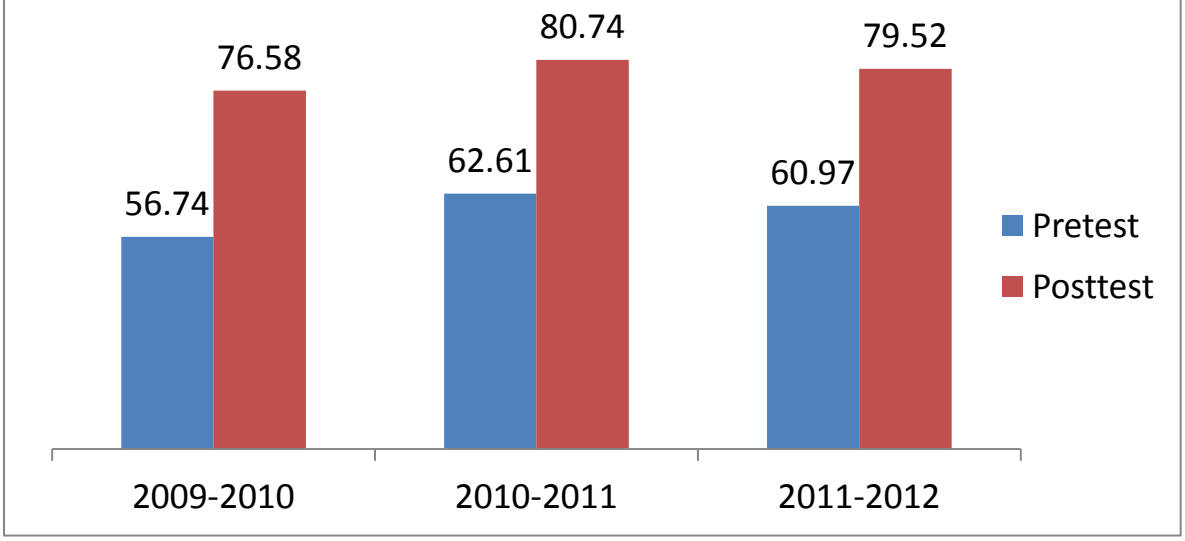
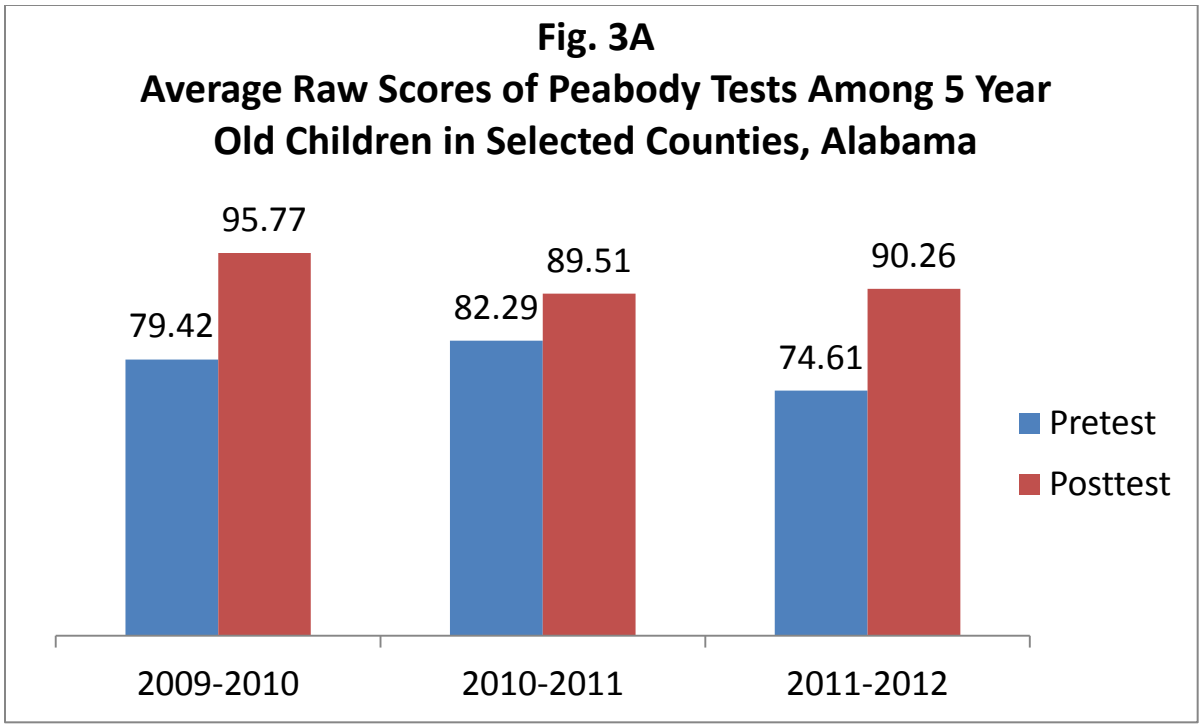


Fig. 2A
Average Raw Scores of Peabody Tests Among 4 Year Old Children in Selected Counties, Alabama





Section 4. Parent Opinion Survey

Parents of participating preschool children were asked to complete a survey about their opinion of the HIPPY program. Several items were included in that survey questionnaire. For this report, we focused our analysis on the following three survey questions:

- *How useful was HIPPY to you*? The possible answers were: very useful, somewhat useful, a little useful, and not useful at all. Because the overall frequency distribution showed that more than 95 percent of parents who answered this question said the HIPPY program was very useful, we recoded the usefulness variable into two categories: very useful and not very useful.
- *What "grade" would you give HIPPY*? The possible answers were: "A", "B", "C", and "F". Here again, the overwhelming majority of parents (95%) gave HIPPY a grade of "A". Therefore, we regrouped the answers into two categories: "A" and "Non A".
- *Would you recommend HIPPY to others*? Almost all parents (99.9%) said they would recommend HIPPY to others. Therefore, we did not find it necessary to examine this variable further.

The results of the first two variables measuring parents' options about the usefulness of HIPPY and the grade they would give HIPPY program are presented in charts (Figures 1-6). Tabular data are given in Section 5. Overall, parents whose children are participating in HIPPY Alabama are very excited about the program.

Fig. 1
Percentage of Parents Who Said the 3 Year Old Program was Very Useful

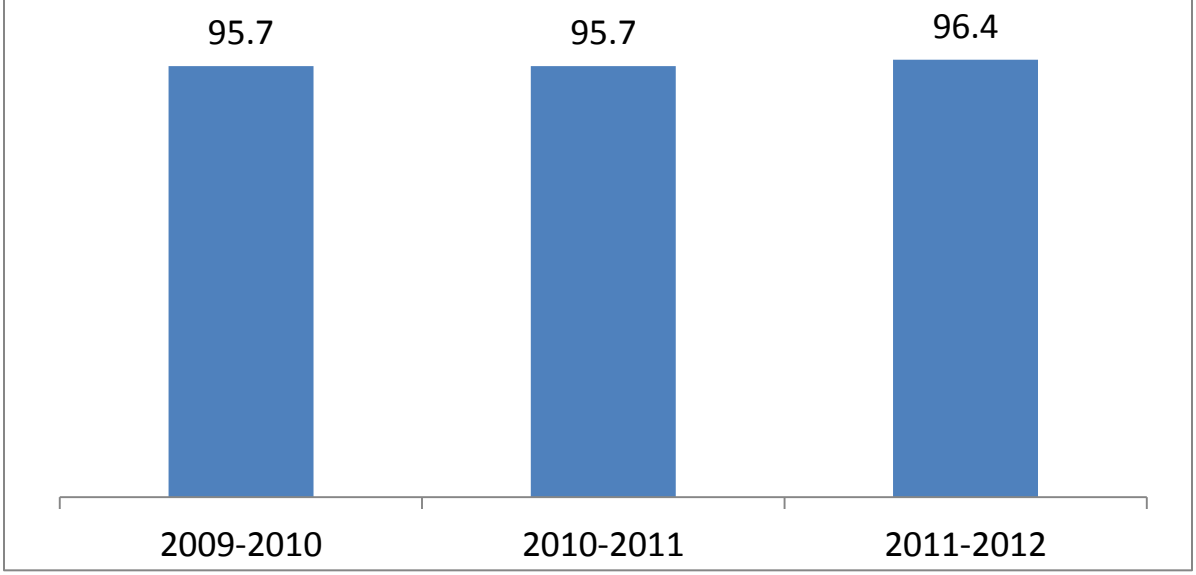
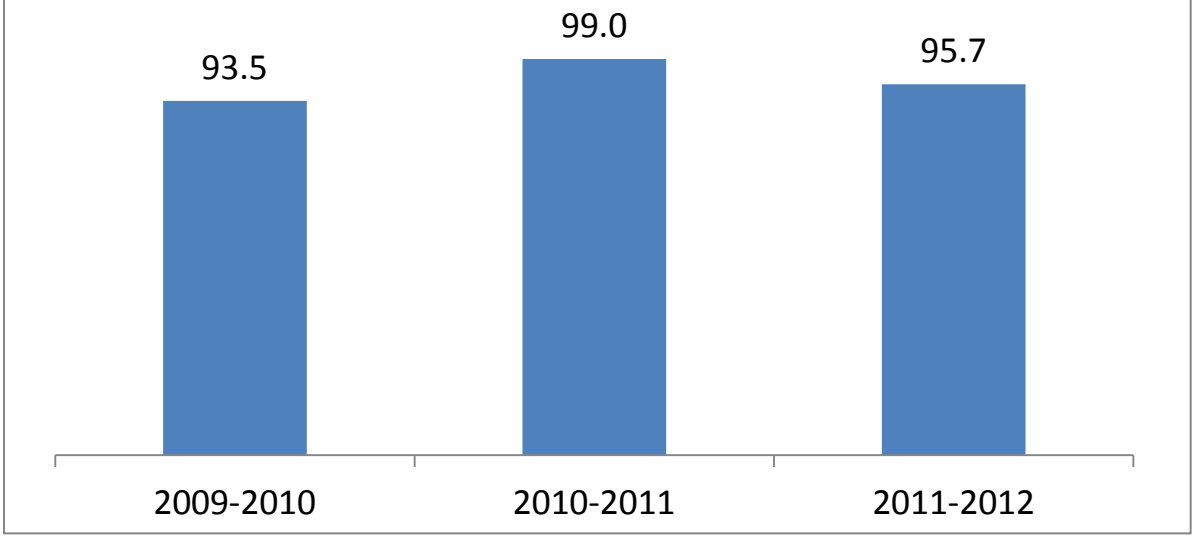


Fig. 2
Percentage of Parents Who Said the 4 Year Old Program was Very Useful



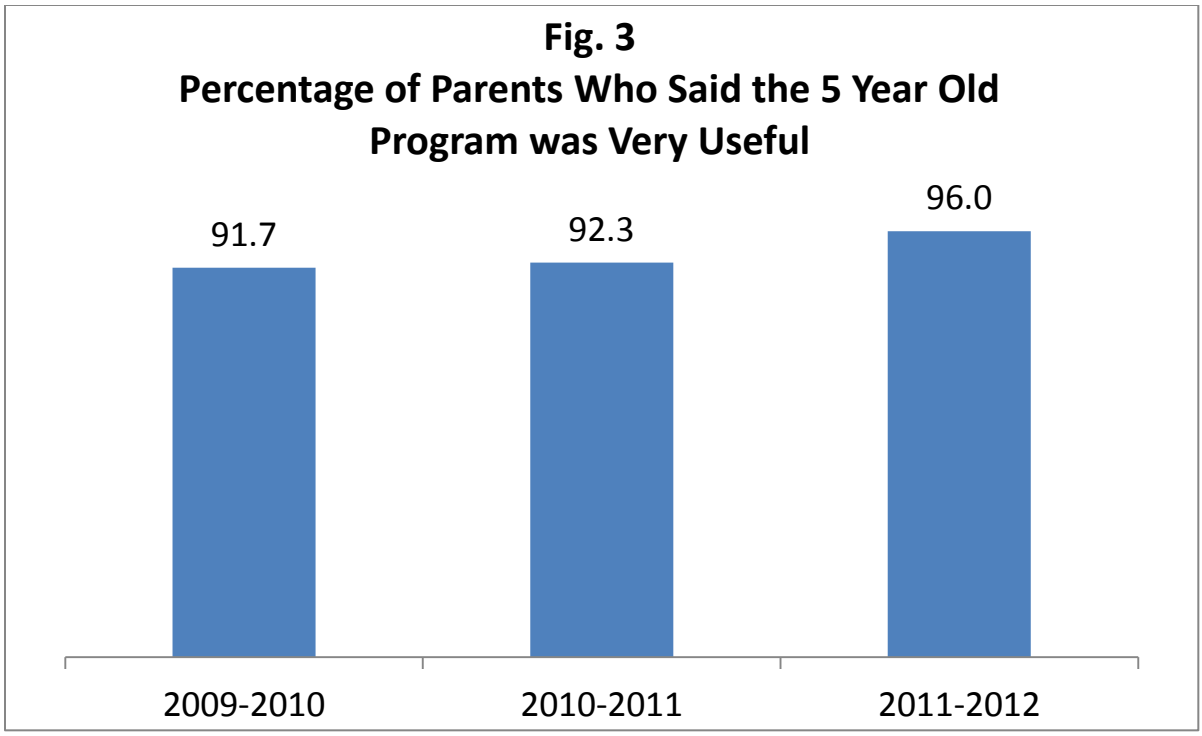


Fig. 3
Percentage of Parents Who Said the 5 Year Old Program was Very Useful
91.7
92.3
96.0
2009-2010
2010-2011
2011-2012

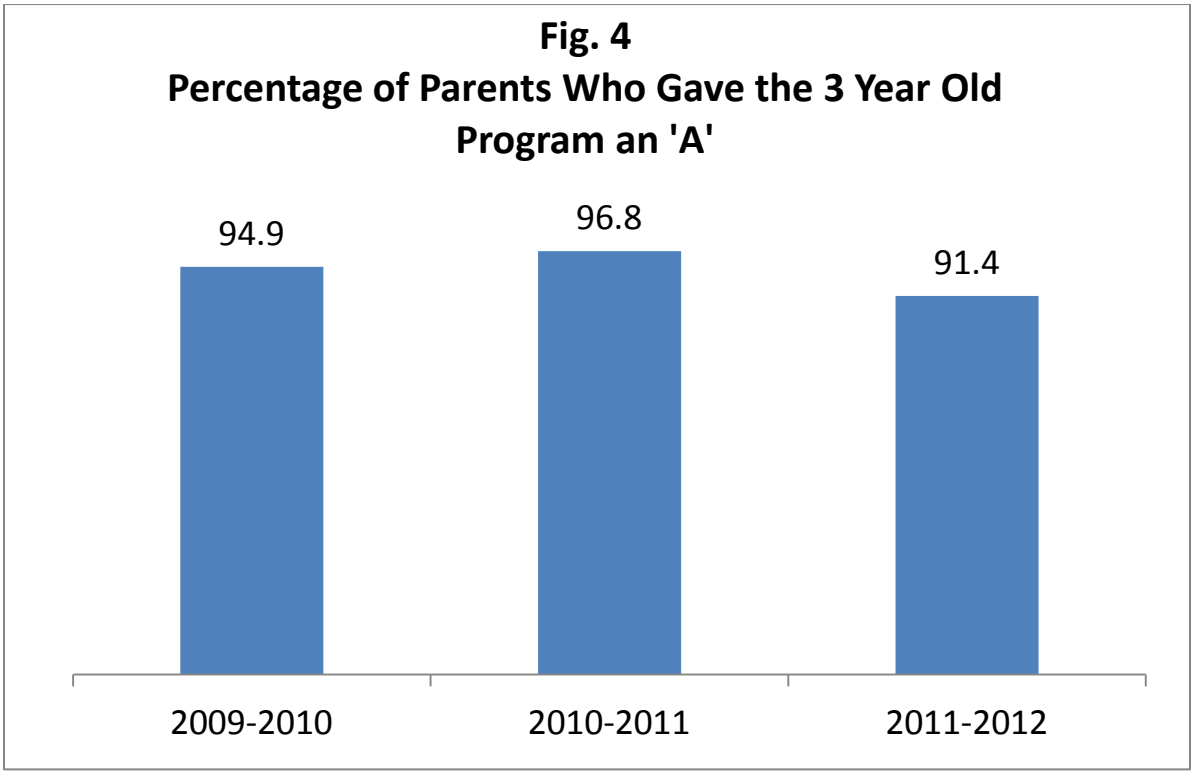


Fig. 4
Percentage of Parents Who Gave the 3 Year Old Program an 'A'
94.9
96.8
91.4
2009-2010
2010-2011
2011-2012

Fig. 5
Percentage of Parents Who Gave the 4 Year Old Program an 'A'

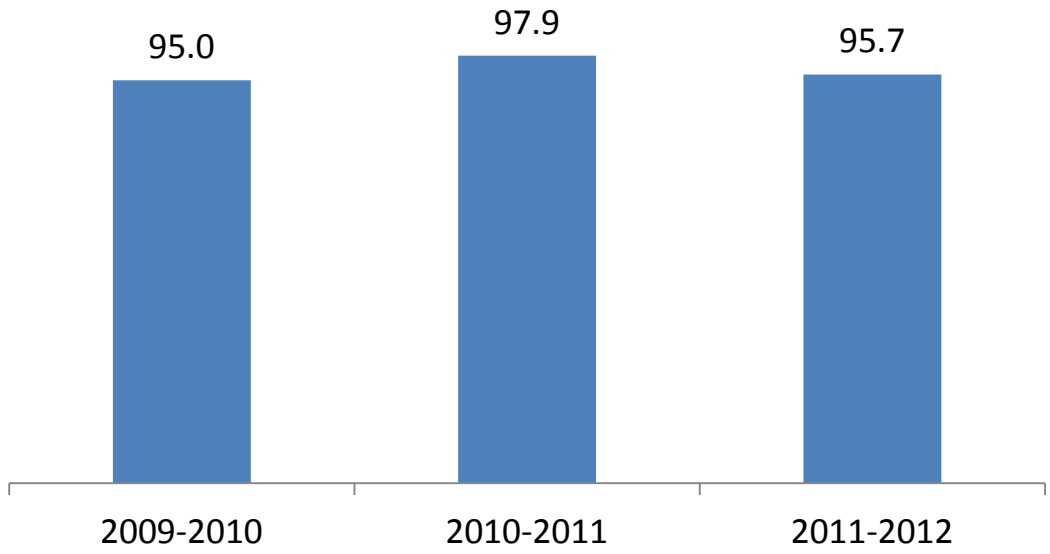
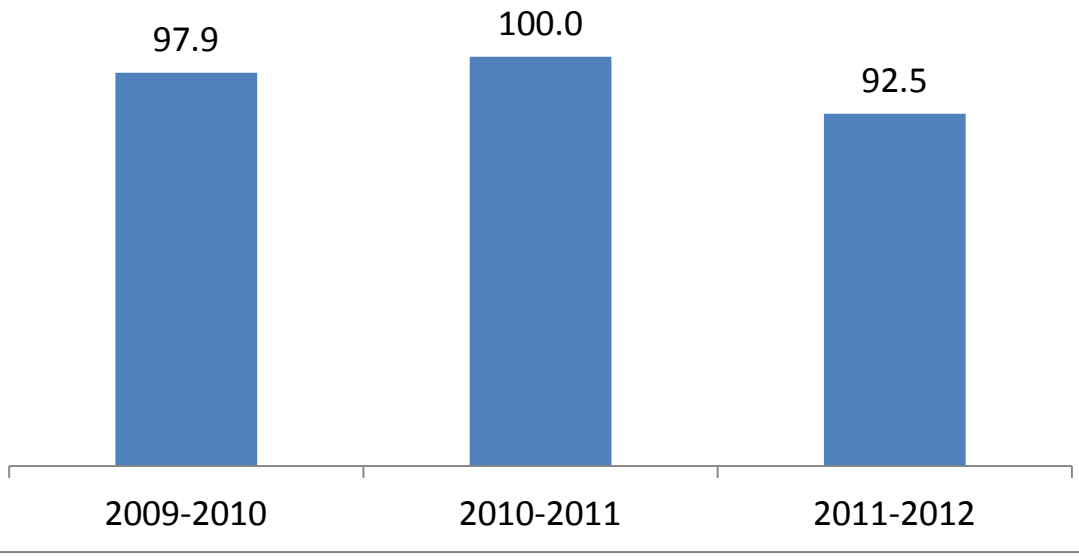


Fig. 6
Percentage of Parents Who Gave the 5 Year Old Program an 'A'



Section 5. Tabular Results

Table 1. Average Scores of Kindergarten Readiness Tests by Age and School Year in All Participating Alabama Counties[1]

	2009-2010			2010-2011			2011-2012		
	Pre-Test	Post-Test		Pre-Test	Post-Test		Pre-Test	Post-Test	
Age									
3	11.16 (5.03)	15.88 (14.26)	***	10.39 (4.78)	13.91 (9.46)	***	9.12 (3.98)	12.13 (3.34)	***
4	32.56 (8.23)	37.62 (6.55)	***	34.19 (7.91)	38.76 (5.94)	***	35.20 (6.41)	39.26 (3.98)	***
5	43.33 (15.12)	46.44 (13.36)	+	61.06 (18.39)	75.12 (8.27)	***	63.34 (19.62)	72.68 (14.39)	***

Notes: [1]Based on some 25 participating counties with reliable data.
Standard deviation values in parentheses.
*** $p \leq 0.001$; ** $p \leq 0.01$; * $p \leq 0.05$; + $p \leq 0.10$

Table 1A. Average Raw Scores of Peabody Tests by Age and School Year in All Participating Alabama Counties[1]

	2008-2009		2009-2010			2010-2011			2011-2012		
	Pre-Test	Post-Test	Pre-Test	Post-Test		Pre-Test	Post-Test		Pre-Test	Post-Test	
Age											
3	35.48 (19.70)		40.75 (17.95)	56.30 (20.58)	***	50.94 (21.11)	71.29 (24.17)	***	40.48 (19.19)	58.13 (23.63)	***
4	61.50 (23.84)		56.74 (20.51)	76.58 (22.02)	***	62.61 (21.60)	80.74 (22.24)	***	60.97 (22.92)	79.52 (24.31)	***
5	77.14 (25.65)		79.42 (24.40)	95.77 (23.34)	+	82.29 (15.56)	89.51 (16.08)	***	74.61 (22.44)	90.26 (19.88)	***

Notes: [1]Based on some 23 participating counties with reliable data.
Standard deviation values in parentheses.
*** $p \leq 0.001$; ** $p \leq 0.01$; * $p \leq 0.05$; + $p \leq 0.10$