

THE ALABAMA DEPARTMENT OF EARLY CHILDHOOD EDUCATION

First Class Pre-K

Issue Brief 2, December 2016

Retention in Grade:

Differences between First Class Pre-K Students and Non-First Class Pre-K Students

Background

The mission of the Alabama Department of Early Childhood Education is to provide state leadership that identifies, promotes, and coordinates services for children, their families, and communities. Housed within the Department of Early Childhood Education, the Office of School Readiness administers Alabama's diverse delivery, voluntary, high quality Pre-K program. Classrooms are funded through a grant process in which sites must meet specific quality standards and abide by rigorous operating guidelines. Alabama's First Class Pre-K program has been awarded the highest quality rating by the National Institute for Early Education Research (NIEER) for the past 10 years.

Introduction

Retention is the decision to have a student repeat a grade as opposed to being promoted to the next school year with same-age peers. Research suggests that retention in the early elementary grades may not support better student outcomes and may, in fact, be harmful to a child's future academic and social success. Even among lower-performing students, those who were retained were more likely to have lower performance on standardized tests, to dislike school, and to drop out of school compared to peers who were not retained.¹⁻² In addition, retention obligates state and local government to an additional year of funding for each child who repeats a grade, increasing overall costs for educational systems. The purpose of this issue brief is to examine differences in retention rates between students who received First Class Pre-K and those who did not, among low income students as indicated by receipt of free or reduced price lunch.

Methods

All students who attended kindergarten in the Alabama public school system were classified into cohorts based on the year they completed kindergarten. Children who received First Class Pre-K the previous year were identified. Grade placement data were analyzed as of the beginning of the 2016/2017 school year for four separate cohorts of children. Students were classified as retained if they had ever been held back in a grade (kindergarten through correct grade for age based on when the student entered kindergarten). Number and percent retained were calculated for each student group (First Class Pre-K and No First Class Pre-K; low income only) for each cohort. A number and percent difference was calculated between the groups.

A change in retention was calculated based on the estimated number of children who would not be retained applying the retention rate observed for First Class Pre-K to the full population (i.e., assuming all students had retention rates equal to those observed for First Class Pre-K). Potential cost savings from reduced retention were calculated based on cost per student per year (\$9,098 in 2014/2015, most recent available data³) multiplied by the change in retention applied to the entire low income student population. Findings are cumulative for four different groups of low income children. Rates are based on the population in each cohort that remains observable in the 2016/2017 school year data (i.e., did not leave the public school system). Results may not include calculations for students retained multiple times during the study period.

Findings

For all cohorts assessed, students who received First Class Pre-K had lower rates of retention than did students who did not receive First Class Pre-K. Differences ranged from 4.1% to 6.3% across the four cohorts included in analyses. Potential cost savings ranged from \$11,120,786 to \$17,272,962 for a total of \$59,165,276 across the four cohorts. For example, for the 2010 cohort, 12.6% of students who received First Class Pre-K had been retained at least once compared to 18.9% of students who did not receive First Class Pre-K, representing a 6.3% difference or a reduction in the probability of retention by one-third. This difference applied to the total number of low income students in the cohort represents 1,831 students with a potential cost savings of \$16,659,875.

Table 1: Retention Status for 2010 to 2013 Cohorts as of the Fall 2016; among Low Income Students.

Cohort/ Current Grade	First Class Pre-K			Non-First Class Pre-K			% Diff in Retention	# Change Retention	Potential Cost Savings from Reduced Retention
	# Retained	# Not retained	% Retained	# Retained	# Not retained	% Retained			
2010/7th	238	1,659	12.6%	5,125	22,044	18.9%	6.3%	1,831	\$16,659,875
2011/6th	312	1,903	14.1%	5,011	22,587	18.2%	4.1%	1,222	\$11,120,786
2012/5th	302	2,023	13.0%	5,349	24,640	17.8%	4.8%	1,551	\$14,111,653
2013/4th	270	2,095	11.4%	5,428	26,726	16.9%	5.5%	1,899	\$17,272,962

Notes: Cohort year represents year student completed public kindergarten. Table 1 includes cumulative retention data for 2010-2013 cohorts. Students were classified as retained if they had ever been held back in a grade (kindergarten through correct grade for age based on when the student entered kindergarten). Number change in retention was calculated by applying the percentage difference in retention to the total number of low income students in the cohort. Potential cost savings from reduced retention were calculated based on cost per student per year (\$9,098 in 2014-2015, most recent available data³) multiplied by the change in retention applied to the entire low income student population.

Implications

Findings from analyses presented in this issue brief suggest that across all cohorts of low income students, those who received First Class Pre-K were less likely to be retained (i.e., to repeat a grade) as compared to those who did not receive First Class Pre-K. The largest differences in retention were observed for the oldest cohort of children, an especially meaningful finding given that they have been in school longer with more opportunity to be retained and that – as older students – they face increased educational expectations. Potential costs savings are conservative estimates based on four groups of students observed for a portion of their academic careers. The oldest students in the sample could only have reached the 7th grade. Further, costs only included educational year expenditures and do not include additional, long-term social and financial costs that may be associated with retention, such as poor academic performance and school drop out.¹⁻² Expanding First Class Pre-K represents an opportunity to reduce retention and decrease costs substantially.

References:

1. Thompson, C. L., & Cunningham, E. K. (2000). Retention and social promotion: Research and implications for policy. ERIC Digest Number 161. Retrieved from <http://files.eric.ed.gov/fulltext/ED449241.pdf>
2. Andrew, M. (2014). The scarring effects of primary-grade retention? A study of cumulative advantage in the educational career. *Social Forces*, 93(2), 653-685.
3. Alabama State Department of Education. (2015/2016). Quick facts. Retrieved from <http://www.alsde.edu/>