

CPS Analysis Identifies Positive Academic Trends for Students Who Attend Pre-K

A new analysis of CPS-funded Pre-Kindergarten (Pre-K) programs found that 3rd grade students who attended Pre-K programs had higher GPAs, better attendance, and higher standardized test scores (NWEA) than their peers with no known Pre-K education.

This analysis evaluated outcomes of 3rd grade CPS students during the 2016-2017 School Year who were enrolled in CPS-funded Pre-K during the 2012-2013 School Year, compared to 3rd graders who have no known Pre-K education. The term CPS-Funded Pre-K refers to programs in CPS schools as well as CBO and charter school programs that were funded by CPS.

Summary of Statistical Analysis: CPS' analysis found positive academic trends associated with students who attended CPS-funded Pre-K programs, which is consistent with a growing body of academic research highlighting the benefits of early childhood learning. Compared to 3rd graders with no known Pre-K education, 3rd graders who attended CPS funded Pre-K had higher standardized test scores, GPAs and attendance:

- Student GPAs for Pre-K attendees were 0.09 points higher on-average than students with no known Pre-K education.
- Students who attended Pre-K had attendance rates that were 0.9 percentage points (approximately 1.6* more days) higher than their peers with no known Pre-K education.
- Students who attended Pre-K exhibited higher test scores for NWEA, including:
 - Students who attended Pre-K were more likely to score at or above grade level (50th percentile) in both reading and math.
 - Students who attended Pre-K had a percentile attainment of nearly 3 points higher than peers with no-known Pre-K in both reading and math.

**Note: the number of days is calculated using 178 attendance days.*

Pre-K Background

3rd graders who attended CPS-funded Pre-K were more likely to be eligible for free and reduced lunch (88 percent), and more likely to be African American or Hispanic (88 percent) compared to those with no known Pre-K education (80 percent free and reduced lunch; 81 percent African American or Hispanic students).



The analysis evaluated the performance of all CPS 3rd grade students during the 2016-2017 School Year and compared their performance to students who attended CPS-funded Pre-K during the 2012-2013 School Year compared to those with no known Pre-K education. Approximately 31,000 3rd grade students were enrolled during the 2016-2017 School Year and approximately 15,500 of those students also attended a CPS-funded Pre-K program.

Background of Analysis

The analysis involved statistical procedures to ensure that the unique contributions of preschool on subsequent outcomes were identified, as opposed to the influence of variables that may also be associated with preschool. The analysis statistically controlled for several variables including multiple demographic characteristics such as race/ethnicity, gender, special education status, English language learner status, homeless status, and geographic neighborhood. The statistical comparisons were limited to comparable students for each of the control variables. Ultimately, the analysis used in this approach allowed for the use of two comparison groups, even with the presence of measurable differences.