

Children's Outcomes through First Grade: Findings from Year 3 of Georgia's Pre-K Longitudinal Study

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STUDY OVERVIEW

In 2011–2012, the Georgia legislature funded a series of ongoing studies to evaluate Georgia's Pre-K Program to examine the quality of Georgia's Pre-K classrooms, the effects of participation in Georgia's Pre-K on children's school readiness skills, and the short- and long-term outcomes of children attending Georgia's Pre-K.

The purpose of the current Longitudinal Study is to examine longitudinal outcomes for children who attended Georgia's Pre-K related to key academic skills as well as the quality of their classrooms from pre-k through third grade. The primary evaluation questions included: 1) What are the learning outcomes for children who attended Georgia's Pre-K Program?, 2) What factors predict better learning outcomes for children?, and 3) What is the quality of children's instructional experiences from pre-k through first grade? The current results focus on children's skills and experiences through first grade.

This study, begun in 2013–2014, involves a longitudinal design to follow a sample of 1,169 children (139 Spanishspeaking DLLs) who attended 199 randomly-selected Georgia's Pre-K classrooms. The 2015–2016 Georgia's Pre-K Program Evaluation focuses on the results of the third year of this longitudinal study through first grade, which included 969 of these children (119 Spanish-speaking DLLs). Researchers conducted individual child assessments near the beginning and end of each year to examine children's growth and development. The assessment measures covered multiple domains of learning, including language, literacy, math, executive function, and teacher ratings of behavior skills. For the DLL subsample, assessments were conducted in both English and Spanish using parallel measures. Researchers also conducted observations of teacher-child instructional interactions in the pre-k classrooms and in a sample of kindergarten and first-grade classrooms attended by a subsample of children in the study. Child/family characteristics, classroom/teacher characteristics, and classroom quality were examined as moderators of children's growth in skills.

RESULTS

Children showed significant growth from pre-k through first grade on most outcomes that were measured longitudinally. Children who attended Georgia's Pre-K made significant gains from pre-k through first grade in the areas of language skills, literacy skills, math skills, and social skills. Children's growth on these measures, which were normreferenced, indicated that they progressed at a greater rate than would be expected for normal developmental growth. For a few measures (math problem-solving, vocabulary, reading comprehension), scores decreased slightly during the first-grade year, indicating that children were making less than the expected rate of progress for their age in these areas.

- Children made greater gains in pre-k and kindergarten on most measures compared to first grade. For most language, literacy, and math measures, children showed lower rates of gain in first grade than in earlier years, with scores generally remaining constant, while scores increased significantly from fall to spring during pre-k and kindergarten. Similarly, scores remained constant for most of the more advanced reading and math skills measured in first grade only, although they showed gains in executive function skills. No change indicates progress at the expected rate, whereas growth on these measures indicates that children were progressing at an even greater rate than would be expected for typical developmental growth.
- Children who were Spanish-speaking dual language learners showed growth on all skills in English and most skills in Spanish. From pre-k through first grade, children in the DLL subsample exhibited significant gains on all English measures of language, literacy, and math skills. They also showed gains for most of the same measures in Spanish. However, for two measures of language/literacy skills (letter-word recognition, vocabulary), children showed significant decreases in Spanish scores from pre-k through first grade. For literacy and math skills measured during first-grade only, children's scores remained constant, indicating growth at the expected rate for their age, although they showed growth on one measure of executive function.
- Children's level of English language proficiency was one of the most consistent predictors of greater growth in skills. Children at lower levels of English proficiency showed greater growth in most language, literacy, math, and behavior skills than children at higher levels of proficiency. Although children at lower

English proficiency levels entered Georgia's Pre-K with lower skills, they learned at a faster rate to catch up to their more proficient peers by the end of first grade in many cases.

- Children's race also was a significant moderator of growth for most language and literacy skills. For purposes of analysis, race was categorized as white and non-white. White children exhibited relatively greater gains than non-white children on most language and literacy measures. For most skills, initial scores were lower for white children, who exhibited significant gains in skills to catch up to their nonwhite peers. There were some other differences in child/family characteristics that may be associated with these effects; for example, white children were more likely to be of Latino ethnicity and to have lower English proficiency levels.
- The quality of teacher-child instructional interactions varied across different domains, with slightly higher scores in pre-k than in kindergarten and first grade. Based on the CLASS, the quality of teacher-child instructional interactions was slightly higher in the sample of Georgia's Pre-K classrooms than in children's subsequent kindergarten and first-grade classrooms. However, the pattern of scores across different domains was similar, with higher scores for Emotional Support and Classroom Organization and lower scores for Instructional Support.
- Children who attended better quality pre-k classrooms had better learning outcomes in some areas. Children in pre-k classrooms with better quality classroom organization based on the CLASS made greater gains in both calculation and vocabulary skills, after adjusting for the quality of kindergarten and first-grade classrooms in the case of longitudinal outcomes (vocabulary).

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