

Third-Grade Achievement for Children Who Participated in Georgia's Pre-K

Summary of Analysis

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Georgia's Pre-K, administered by Bright from the Start: Georgia Department of Early Care and Learning (DECAL), aims to provide four-year-olds with high-quality preschool experiences to help prepare them for kindergarten. A recent evaluation of Georgia's Pre-K indicated that participation in the program had significant positive effects on children's skills at the start of kindergarten.¹ However, no recent study has examined outcomes at later grades for Georgia's Pre-K children, compared with children who did not participate. The current study aimed to fill that gap by comparing third-grade scores on the Georgia Milestones End-of-Grade (EOG) tests for children who had and had not taken part in Georgia's Pre-K.

Methods

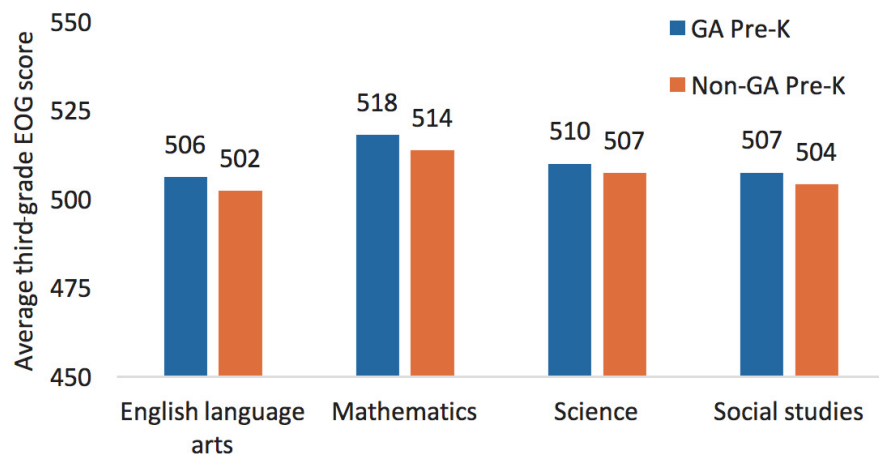
Child Trends received de-identified administrative records from Georgia's Academic and Workforce Analysis and Research Data System (GA•AWARDS) for all children in third grade in 2015–16. Children who had gone to Georgia's Pre-K were matched with non-participants who were otherwise similar on several key variables, including kindergarten school, free/reduced lunch (FRL) (which serves as an indicator of family poverty), and home language. This matching was an important step to ensure that children were similar on characteristics that might be linked to school achievement. After matching, each group included 46,262 children.

Results

Children who went to Georgia's Pre-K did significantly better on third-grade EOGs than those who did not, in all subject areas (see Figure 1).

Figure 1. Average Third-grade EOG Scores for Children Who Did and Did Not Participate in Georgia's Pre-K

Children who participated in Georgia's Pre-K scored significantly higher on Georgia Milestones EOGs in third grade than children who did not participate.



¹ Peisner-Feinberg, E. S., Schaaf, J. M., LaForett, D. R., Hildebrandt, L.M., & Sideris, J. (2014). Effects of Georgia's Pre-K Program on children's school readiness skills: Findings from the 2012–2013 evaluation study. Retrieved from http://dec.al.ga.gov/documents/attachments/GAPreKEval_RDDReport.pdf

In addition to the raw scores (in Figure 1), Georgia Milestones² categorizes student achievement on EOGs into four levels: beginning, developing, proficient, and distinguished. Children who score in the proficient or distinguished groups are considered prepared for the next grade level. The odds of being proficient or distinguished in English language arts (ELA) in third grade were 11 percent higher for a child who went to Georgia's Pre-K than for a child who did not participate. For math, the odds of being proficient or higher were 17 percent higher for a Georgia's Pre-K child than a non-Georgia's Pre-K child; for science, 11 percent higher; and for social studies, 14 percent higher.



Additionally, Child Trends examined whether the links between Georgia's Pre-K participation and EOGs were stronger for some children than others. Among children enrolled in FRL, the odds of scoring proficient or distinguished were higher in all four subject areas (by 20–30%) for children who had participated in Georgia's Pre-K, relative to those who had not. Surprisingly, for children not enrolled in FRL, the odds of scoring proficient or distinguished were lower in all subject areas (by 6–12%) for children who had participated in Georgia's Pre-K. Among children whose home language was not English, the odds of scoring proficient or distinguished were 21–32 percent higher for children who had participated in Georgia's Pre-K than for those who had not. Among children whose home language was English, the odds of scoring proficient or distinguished were 8–17 percent higher for children who had participated in Georgia's Pre-K.

Conclusions

These findings are all small, but we think they matter for several reasons. The tests used in these analyses were administered four years after the children left Georgia's Pre-K. This is a long time for any intervention to have an effect, and the children had many experiences that affected their test scores after participation in Georgia's Pre-K. Likewise, Georgia's Pre-K is a broad intervention designed to serve many purposes in addition to promoting academic achievement, such as improving social skills, smoothing the transition to kindergarten, and engaging families in their children's education. EOGs are not designed to test the effects of Georgia's Pre-K, so they may not align well with the goals of Georgia's Pre-K. Further, Child Trends used careful statistical techniques to guard against bias, but those techniques also tend to decrease the size of effects. Despite these factors, students who attended Georgia's Pre-K scored significantly higher on all EOGs at the end of third grade.

Test scores were slightly lower for non-FRL children who participated in Georgia's Pre-K than for those who did not. One possible explanation is that non-FRL children who did not participate may have been more likely to attend high-quality private preschools than their counterparts enrolled in FRL.

The findings are stronger for children enrolled in FRL or whose home language is not English, compared to their peers. Given that these two groups of children are especially at risk for academic difficulties, it is promising that participation in Georgia's Pre-K is linked to a higher likelihood of leaving third grade with the skills needed for success in the fourth grade.

In sum, the findings from this analysis provide evidence of the benefits of Georgia's Pre-K in early elementary school.

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² Georgia Milestones Achievement Level Descriptors. Georgia Department of Education. Retrieved from <http://www.gadoe.org/Curriculum-Instruction-and-Assessment/Assessment/Pages/Georgia-Milestones-ALD.aspx>