

December 13, 2016

Bruce Atchison & Louisa Diffey

[batchison@ecs.org](mailto:batchison@ecs.org) & [ldiffey@ecs.org](mailto:ldiffey@ecs.org)

**Your Question:** You wanted to know if the effects of early education programs last past the third grade and if students without pre-k catch up to their peers by third grade.

**Our Response:** Overall research points to positive effects of pre-k programs as they improve school readiness, have short-term and long-term benefits, and are a cost-effective investment. Below we have included research that supports each of the areas mentioned.

### Pre-K Improves School Readiness

A number of studies have examined the short-term impact of one year of pre-k participation at kindergarten entry. A study of the [Oklahoma](#) pre-k program in Tulsa found that compared to children who didn't participate in the program, children who did made advances in:

- Early literacy skills by an equivalent of 9 months of school;
- Spelling skills by an equivalent of 7 months of school; and
- Early math skills by an equivalent of 5 months of school.

This study took into account differences in children's gender, race and/or ethnicity, school lunch eligibility, their mother's education, whether they lived with his or her biological father, and whether they had Internet access at home.

### Pre-K Has Benefits Beyond Kindergarten

A study in **New Jersey** found impacts of pre-k into the elementary years. [By the end of second grade](#), students who participated in pre-k scored significantly better on assessments in math, comprehension, and vocabulary skills. They were also 30 percent less likely to repeat a grade after one year of pre-k enrollment, and 50 percent less likely to have repeated a grade after two years of pre-k.

[By the end of fifth grade](#), students who participated in pre-k were 40 percent less likely to have repeated a grade, and 31 percent less likely to have been placed in special education. They also scored significant higher on standardized tests in reading, math, and science.

Throughout their analyses, the researchers took into consideration the following differences among children: ethnicity, free lunch status, gender, age, school district, parental employment, parental education, home language, and family structure.

[New research](#) indicates that the impacts of early childhood education programs can be seen through the 5th grade. This study, which followed students in **North Carolina**, shows that students who participated in state-funded early education programs between 1995-2010 scored higher on testing. Additionally, these students were less likely to be retained in grades 3-5 or to qualify for Special Education services. These results held constant across socio-economic status and race. These results indicate that the gains made in the pre-k space are fundamental to a student's academic success.

### **Cost Benefit of Pre-K**

A recent report by Nobel Laureate James Heckman demonstrates that investing in early education programs, especially for disadvantaged children, is worth the investment. This study followed two generations of families and provided high-quality programs for low-income students from birth to age 5. These students were more likely to graduate high school, have higher IQs, experience better overall health, and were less likely to be incarcerated than their peers who did not experience high-quality early learning programs. All of these factors lead to society paying less for these students later in life and a rate of return on public investment at 13% per year.

### **Additional Resources:**

Please see the links below for further research, reports and resources on this topic. If this research leads to additional questions, we are happy to provide further assistance.

- The Foundation for Child Development and the Society for Research in Child Development released a report in October 2013, entitled [Investing in our Future: The Evidence Base on Preschool Education](#). This report provides an overview of the evidence behind, and the details of, quality preschool programs.
- This report, released by the White House in December 2014, provides an overview of the [Economics of Early Childhood Investments](#).
- The National Institute of Early Education Research released a [study](#) on the longitudinal effects of the Abbott Preschool Program in New Jersey. The Abbott program offers high-quality Pre-K to all children in 31 New Jersey communities with high levels of poverty and about a quarter of the state's children. This study assesses the impact of this pre-K program on children's learning and development based on a cohort of children who completed their 4-year-old year in 2004-2005.
- New America's [3 Facts and 3 Challenges to Keep in Mind about Pre-K](#) provides research on the effects of pre-k in kindergarten, in learning gains in later grades, and the variety of pre-k settings students encounter. It also details and provides solutions to many of the challenges of implementing universal pre-k.
- Children at Risk released the [Pre-L STARR Report](#) which examines how participation in public pre-K impacted student performance on third grade reading assessments.