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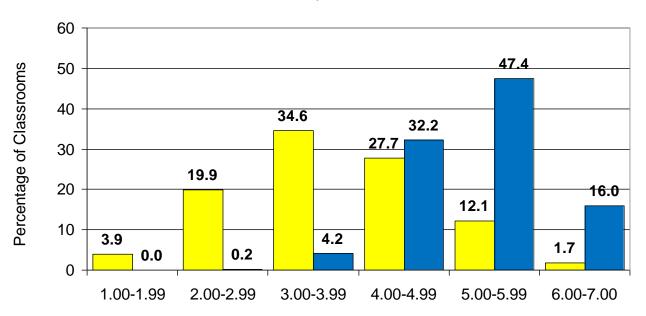
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## The Abbott Preschool Program Longitudinal Effects Study (APPLES)

The New Jersey Supreme Court in Abbott v. Burke mandated that the state establish highquality preschool education in the 31 highest-poverty school districts in the state. Since the state began implementation in 1999-2000, high standards and a continuous improvement system have transformed a patchwork of private and public programs into a highly effective mixed delivery system. We have tracked changes in quality to document progress over the years, and the results are displayed in Figure 1. In 1999-2000, less than 15% of pre-K classrooms were good to excellent and nearly 1 in 4 was less than minimal quality. By 2007-08 the vast majority of classrooms were good to excellent; almost none were poor. with very few were even below a score of 4 (midway between minimal and good). The Abbott model totally transformed the quality preschool education using essentially the same programs (2/3 private) and teachers—though many teachers went back to school for degrees and specialized training in return for higher pay, all received coaching.

Figure 1: Quality Rating in Abbott Pre-K Programs (Public and Private)

## NJ Raised Quality in Public and Private



ECERS-R Score (1=poor, 3=minimal, 5= good, 7=excellent)

□ 00 Total (N = 232) ■ 08 Total (N = 407) Beginning in the 2005-2006 school year, the seventh year of implementation, NIEER began a longitudinal study to measure learning gains from participating in Abbott pre-K. At the time the study began, quality had risen but not yet to its current level, and 40,500 3- and 4-year-old children were served.

Initial results found strong gains in language, literacy, and math at kindergarten entry. Gains were found again at 2<sup>nd</sup> grade follow-up. Most recently NIEER worked with the state to assess the effects of Abbott Pre-K on statewide measures of achievement, grade retention, and special education at 4<sup>th</sup> and 5<sup>th</sup> grade. Estimated effects on achievement for 1 and 2 years (beginning at age 3) are shown in Figure 2. The most rigorous method (RDD in the chart) can only be applied to 1year at age 4, but it indicates that our longitudinal methods tend to underestimate program effects but a substantial amount. Therefore, our later estimates should be considered lower bounds on effects. Nevertheless, estimated effects are substantial, persistent, and larger for 2 years than for 1 year. The 2-year effects are large enough to close about half the achievement gap between low-income children and their more advantaged peers. In addition, we estimated that Abbott pre-K reduced grade repetition from 19% to 12% and special education from 17% to 12% through 5<sup>th</sup> grade.

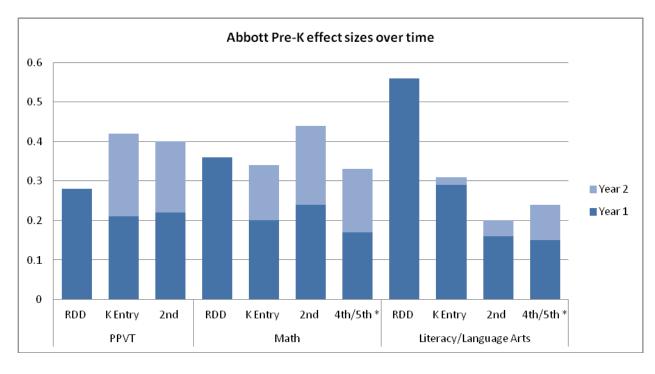


Figure 2: Abbott Pre-K effect sizes (standard deviation units) for achievement over time

**Source:** Barnett, W.S., Jung, K, Youn, M., & Frede, E.C. (2013). *Abbott Preschool Program Longitudinal Effects Study: Fifth Grade Follow-Up*. New Brunswick, NJ: National Institute for Early Education Research. Available at: <a href="http://nieer.org/publications/latest-research/abbott-preschool-program-longitudinal-effects-study-fifth-grade-follow">http://nieer.org/publications/latest-research/abbott-preschool-program-longitudinal-effects-study-fifth-grade-follow</a>

National Institute for Early Education Research (<u>www.nieer.org</u>) at the Graduate School of Education, Rutgers University, New Brunswick, NJ, supports early childhood education policy and practice through independent, objective research.