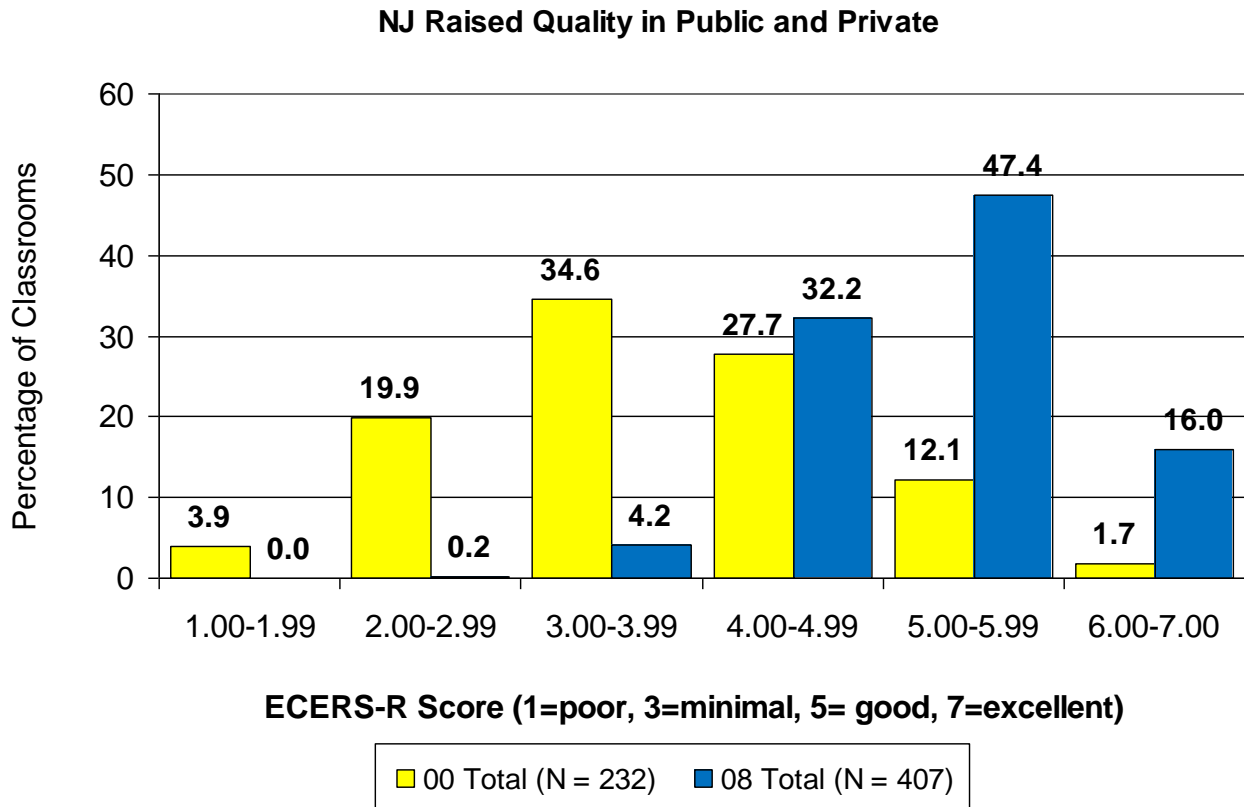


The Abbott Preschool Program Longitudinal Effects Study (APPLES)

The New Jersey Supreme Court in *Abbott v. Burke* mandated that the state establish high-quality 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.

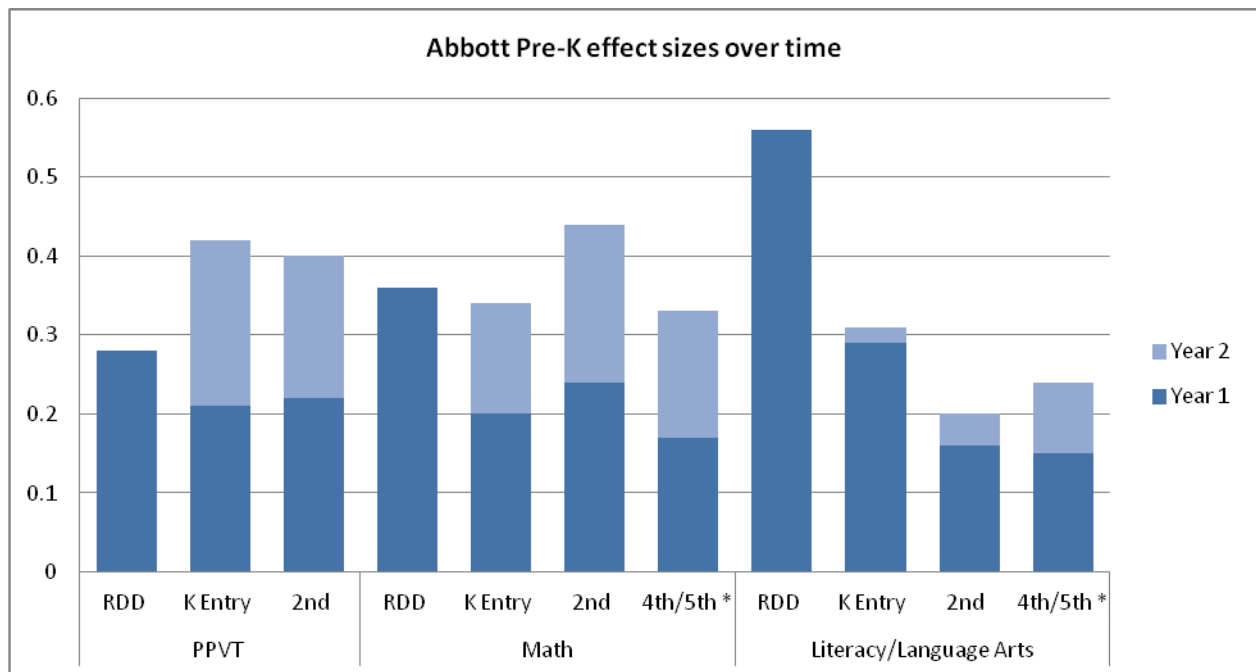
Figure 1: Quality Rating in Abbott Pre-K Programs (Public and Private)



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 2nd 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 4th and 5th 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 1 year 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 5th 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: <http://nieer.org/publications/latest-research/abbott-preschool-program-longitudinal-effects-study-fifth-grade-follow>

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