

How Preschool Fights Poverty

Cynthia E. Lamy

Research shows that preschool programs—if they're of high quality—can provide an enormous boost that changes children's lives forever.

As most educators know, children from low-income households often arrive at the kindergarten door substantially behind children from higher-income households. On average, children from poor families score far below their peers from higher-income families in early vocabulary and literacy development, in early math, and in the social skills they need to get along well in their classrooms (Halle et al., 2009; Lee & Burkham, 2002).

This gap in school readiness receives much less attention than the test score gaps that hound these children throughout their school careers or the vast gulfs in high school graduation rates and college enrollment rates that are the end results. But the early delay in pre-academic progress largely predicts those later, more visible shortfalls (Burchinal, et al., 2011; Duncan & Magnuson, 2005). Children who enter school lagging far behind don't usually catch up.

It's no mystery why children from low-income families often start kindergarten so far behind. These children are less likely to have the early educational support that is so crucial for the development of their knowledge and skills. Their parents tend to be less well educated and more stressed, and to have fewer psychological and financial resources. These children are less likely to spend their days in playful conversational banter with an adult who has the time and patience to answer their innocent, incessant questions, helping them build their vocabularies and their general store of knowledge. They typically have fewer enticing educational toys that could kick-start their cognitive development—sets of blocks and fascinating puzzles; fantastic or mundane clothes for dramatic play; wildly colorful picture books telling amazing stories.

This is where preschool comes in. We know that preschool can provide the developmentally stimulating experiences that many children growing up in poverty lack. The evidence is incontrovertible.

But here's a crucial point: To fight poverty, preschool must provide an enormous early boost that changes the academic trajectory of a child forever. Only a high-quality preschool program will do the job. Lower-quality programs do not have a significant impact on poverty because they do not make that life-changing difference. How do we know this? A mature body of research on preschool provides guidance.

We've Got Studies

We are lucky to have evidence from three rigorous longitudinal studies that report the effects of high-quality preschool programs on children followed well into adulthood—the Perry Preschool study, the Abecedarian study, and the Chicago Child-Parent Centers study.

The Perry Preschool and Abecedarian studies have followed children who were randomly assigned into preschool experiment groups and non-preschool control groups over several decades. These programs were both of the highest quality, with the Abecedarian program being particularly intensive in dosage and duration. The Chicago study, a strong quasi-experimental study, followed many more children and is perhaps more generalizable, with children enrolled in more typical, public preschools of relatively high quality through the mid-1980s. The Perry Preschool children are now entering their 50s, the Abecedarian children their 40s, and the Chicago children are currently in their mid-30s.

We are also fortunate to have several state-level studies of large, current preschool programs (Barnett, Jung, Frede, Hustedt, & Howes, 2011). These programs are not old enough to have followed cohorts of students for many years, but some have followed students into elementary school. These studies have been conducted in states (especially Arkansas, California, New Mexico, Michigan, New Jersey, Oklahoma, South Carolina, and West Virginia) that have put substantial effort toward accomplishing a most difficult and worthy goal—a consistently high-quality preschool program of extensive reach.

Finally, we have the recently published update of the Head Start Impact Study, with new 3rd grade findings (Puma et al., 2012). This huge national study has been long awaited with trepidation, because results from earlier studies were disappointing.

The Evidence Is Strong: Quality Matters

The Perry, Abecedarian, and Chicago studies all report that the preschool children they served have had significantly more success in school and in life than the control children. These studies have been extensively reported on, but here are some of the main findings.

The Perry Preschool children scored significantly higher on standardized tests; graduated high school on time at higher rates (65 percent versus 45 percent for the control group); were much less likely to have been convicted of a crime (28 percent versus 52 percent for the controls); and at age 40 had expected lifetime earnings that averaged about \$150,000 higher than the control group's (Schweinhart et al., 2005).

The Abecedarian children, too, scored significantly higher than control-group children on standardized tests throughout their schooling. The girls in the preschool group became teenage parents at almost half the rate of the girls in the control group (26 percent versus 45 percent), and the preschool children attended college at a much higher rate (36 percent versus 13 percent) (Barnett & Masse, 2007; Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002).

The Chicago study found effects that are similar to, but less stellar than, those found in the other two studies. The Chicago preschoolers scored significantly higher on standardized tests. But they graduated high school at a rate just 9 points higher than the control group (79 percent versus 70 percent). The Chicago preschoolers also got in trouble with the law less frequently as teenagers (17 percent for the preschool group versus 21 percent for the controls), but the advantage was much smaller than it was for the Perry program (Reynolds, Temple, & Ou, 2010).

Both the Abecedarian and the Chicago researchers found that the preschool children were retained in grade about 40 percent less, and all three of the studies reported special education placements for the preschool children at about half the rate of the control group.

Economic cost-benefit analyses that used the findings of each of these studies to calculate the social return on investment in these programs produced eye-opening results. Lifetime returns on the dollar for the initial program investments range from a healthy 3:1 for the expensive Abecedarian program to a huge 17:1 for the Perry program. The Chicago program produces a 10:1 return of benefits over costs. These returns arise not only from the adult earnings increases of the lucky individuals who attended these great preschool programs, but also from increased income tax and sales tax revenues paid to government from those earnings, from savings to criminal justice systems because of decreased crime, and from reduced use of social safety net programs. Analysts estimate that when high-quality programs reach most children in a school district, these programs will save about 3 percent of the overall school district budget each year through decreases in grade retention and special education services, along with increases in positive peer effects that lift overall school efficiency (Belfield, 2004).

Compare these findings to those of the state studies and Head Start. The less intensive state-level programs across the United States, striving for high quality but often hitting the mid- to high-quality range, seem to be producing early benefits of about the same strength as the Chicago programs—and smaller than the Perry and Abecedarian programs (Frede & Barnett, 2011). The quality of Head Start programs, which often struggle with partial funding while attempting to serve as many children in poverty as possible, is known to be inconsistent, with many sites of lower quality (Currie & Neidell, 2007). The Head Start Impact Study 3rd grade results confirm that although Head Start increases children's academic readiness, the benefit is short-term and becomes imperceptible within two years (Puma et al., 2012).

It should be noted that one state program implemented with particular attention to high quality has been rigorously, longitudinally studied: New Jersey's Abbott Preschool program (so named for the state Supreme Court case that mandated its existence). Results at the end of 2nd grade continue to show substantially higher test scores and decreased grade retention for the preschool group of children compared with the control group. (Special education placements have not yet been studied.) Grade retention is cut by one-third for children who started preschool at age 4 and cut in half for those who started preschool at age 3 (Frede, Jung, Barnett, & Figueras, 2009).

What do the high-quality programs have that the lower-quality programs don't have? High-quality programs are staffed with well-educated, responsive teachers with strong backgrounds in child development and early learning pedagogy. Administrators tend to be knowledgeable about and supportive of best practices in early learning, providing meaningful professional development and strong classroom supports. Research-backed curriculums support high standards for teaching and learning through a good mix of teacher-directed and child-directed activities (many play-based). Classrooms are chock full of attractive, tempting materials for a wide variety of fun, educational experiences. Family outreach is vibrant and tenacious.

Changing Children, Families, and Schools

What are the mechanisms by which great preschools produce these beneficial outcomes well into adulthood? Experts continue to discuss this question, forming hypotheses involving the relative effects of early cognition, social skills, aspirations for success, family support, and teacher expectations (Barnett, 2011; Heckman, Malofeeva, Pinto, & Savelyev, 2010). It seems reasonable to suggest that, in general, three main factors work together in some complex, messy mix of effects (Lamy, 2012). The most obvious is a direct effect on children, followed by a direct effect on parents. A third avenue is the influence of best-practice preschools on schools themselves.

Benefits for Children

A great preschool experience provides children with foundational academic skills on which they can continue to build, as well as social abilities for getting along in a classroom. But perhaps just as important, attending a great preschool teaches children that they like to learn and that they can be good at learning. Their more developed cognitive and social skills, along with this positive attitude toward learning, hard work, and school, point them in the direction of academic success, which opens the door for success in life.

This more successful start lowers the probabilities of grade retention and special education placement. With more success in school and a brighter future for themselves just around the corner, these children grow into teenagers who make better choices and have fewer early pregnancies and juvenile arrests. These avoided derailments translate into higher education attainment and earnings.

Benefits for Families

Great preschools also benefit families. Teachers and administrators in excellent preschools reach out warmly to parents, involving them in their children's schooling and providing additional resources to families in need. They alert parents to

the importance of their children's school experiences and share techniques parents can use to support their children's learning at home. In fact, better parenting is among the few Head Start effects that do not fade after three years.

Great preschool programs include transition activities that guide parents toward supportive relationships with their children's kindergarten and elementary school teachers (Bohan-Baker & Little, 2002). And many great preschools operate full-day programs or provide high-quality before-school and after-school care, which allows parents to work more securely, in turn increasing the family's financial resources to create an educationally supportive home environment.

Benefits for the School System

Great preschools benefit school systems by (1) delivering to kindergarten cohorts of students with improved academic and social skills, and (2) providing the opportunity for preschool professionals and elementary school educators to share best practices in early learning.

Schools reap benefits when students are less likely to repeat a grade, need special services, or require disciplinary interventions. These improvements free teachers to do their best teaching. They also save school systems money—funds that can be repurposed from remedial activities to more exciting educational opportunities that can confirm students' love of school.

Moreover, great preschools offer new opportunities for school systems to integrate the best early childhood practices into the primary grades, where we know they belong. Some researchers have called for explicit preK–3 models to accomplish this (Reynolds, Magnuson & Ou, 2009; Sadowski, 2006). Research suggests that extending best early learning practices into elementary school yields rewards; for example, analyses of the Abecedarian and Chicago study preschool-plus groups find even stronger effects for children who received continued early learning support (Campbell & Ramey, 2010; Reynolds, Magnuson, & Ou, 2009).

Extend the Learning

Great preschools embrace a focus on the whole child, respect the unique characteristics of individual children and families, and are guided by the principles of child development and a scientific approach toward what works in the classroom. Put into practice, these premises are providing education leaders with the research-based evidence they need to push back against the constant pressure to teach young children in the early grades with methods better suited for older children.

Educators, be aware! Young students—from low-income families or not—who have had a great preschool experience are much more likely to enter kindergarten confidently and joyfully, ready to learn and expecting to play an active part in an engaging educational conversation. Teachers must be ready for these students—ready to provide the kinds of classroom experiences that will support and extend that joyful learning.

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[Cynthia E. Lamy](#) is metrics manager for the Robin Hood Foundation in New York, New York. She is the author of *American Children in Chronic Poverty: Complex Risks, Benefit-Cost Analyses, and Untangling the Knot* (Lexington Books, 2012).