



Why Quality Matters in Pre-K

Over the past few decades, a growing body of research suggests that participating in high-quality early childhood education programs can enhance children’s development, reduce achievement gaps at kindergarten entry, and even have long-term benefits in school and beyond. However, pre-K can only provide these benefits if a child’s classroom experience is high-quality.

What are the Elements of High Quality Pre-K?

Elements defining high quality associated with child outcomes include teacher credentials, training, and support; class size and student-to-teacher ratio; use and support of early learning and development standards; and a system of continuous quality improvement.

- Better education, training, and on-going support for teachers can improve their interactions with children, which can enhance children’s learning.
- With smaller classes and fewer children per teacher, children have greater opportunities for interaction with adults and can receive more individualized attention, resulting in a higher quality learning experience.
- Early learning and development standards offer programs guidance and establish the expectation that programs cover the full range of areas essential to children’s learning and development.
- Policies requiring strong state quality standards are essential, but it is also necessary to have a means of gauging whether specific pre-K programs are meeting those standards.

“Expansion of public pre-K is only a worthwhile public investment if children receive a high-quality education.”

– W. Steven Barnett, Ph.D., senior co-director
National Institute for Early Education Research,
Rutgers University Graduate School of Education

Did you know...

- High-quality early education is one of the best investments we can make with public dollars: an effective weapon against academic failure, high school dropout, crime and poverty and for a shared future that is healthier, more academically, socially, and economically successful.
- Access to high-quality early education remains scarce. Even many middle-income families can’t find or afford such an education before their children start kindergarten.
- The benefits of preschool—for children, families, and society at large—only accrue if preschool education truly is high-quality.

To learn more:

How Much Can High-Quality Universal Pre-K Reduce Achievement Gaps?

Allison Friedman-Krauss, W. Steven Barnett, and Milagros Nores April 2016

nieer.org/research-report/much-can-high-quality-universal-pre-k-reduce-achievement-gaps



Why Quality Matters in Pre-K: Investing

To be beneficial, early learning opportunities must be intentional, caring, and address the needs of each child. Providing such opportunities requires small class sizes and well-trained, experienced teachers. That is why much of the investment in Pre-K is dedicated to salaries and benefits, along with sustainable funding to enroll as many children as possible.

Expanding access for more children means adding classrooms, and each classroom usually requires at least two teachers, plus support staff to ensure high-quality programming. Maximum class size restrictions may also require new, additional classrooms to be created. In addition to supporting existing pre-K classrooms a state must identify adequate resources to ensure access to high-quality early education for all families interested in participating.

If pre-K classes operate longer than the elementary school day--and many do start earlier and end later--additional teachers may be necessary. To provide children with an engaging and educational experience, pre-K teachers and assistant teachers need ongoing professional development. Coaching is one of the most effective strategies to ensure high-quality teaching.

The coaching model can vary widely based on the number of classrooms assigned to each coach (caseload). Annual, ongoing professional development support requires the cost associated with the training as well as any substitute teacher costs to cover the classrooms in the teachers' absence.

“Increased public investment in early learning is a pro-growth strategy that can reduce overall government expenditures.”

– W. Steven Barnett, Ph.D., senior co-director National Institute for Early Education Research, Rutgers University Graduate School of Education

Did you know...

- When government supports high-quality early childhood programs, evaluations find long-term effects improving important societal outcomes such as high-school graduation, years of education completed, earnings, crime and health.
- Rigorous cost-benefit analyses demonstrate that although high-quality programs are not cheap, the economic benefits can far outweigh the costs.
- Quality requires well-trained teachers using proven curricula to engage children in interactions that stimulate learning while being emotionally nurturing and fostering engagement in and enjoyment of learning. Teaching is enhanced by systematic, sustained, in-classroom coaching and mentoring.

To learn more:

“Improving Public Financing for Early Learning Programs”

W. Steven Barnett Ph.D. and Jason T. Hustedt (April 2011)

nieer.org/policy-issue/policy-brief-improving-public-financing-for-early-learning-programs



Why Quality Matters in Pre-K: Benefits

Spending on many state preschool programs is currently quite low; not surprisingly, so are the outcomes. Three of the four states with the largest populations of 3- and 4-year-olds rank near the bottom on quality standards and spending per child. In [2015-2016](#), average pre-K state spending was \$4,976 per child nationwide. In this same year, 32 percent of 4-year-olds and 5 percent of 3-year-olds were served nationally.

Research shows investing in the early years of a child's life often produces a high rate of return by positively impacting a child's readiness at kindergarten entry and future success in elementary school, high school, college, and adulthood. [Jim Minervino \(2014\)](#) created a series of research papers that addresses the conditions and costs associated with implementing high quality pre-K. Through his analyses of published research, program evaluations, and "extensive consultation with experts in the early childhood field," Minervino concluded that there are substantial funds already invested in early learning, however focusing on different practices and policies could yield better results.

[James Heckman's analysis](#) of the Perry Preschool program, the original longitudinal study that proved quality early childhood education has a lasting and positive impact on participants into, found a 7 to 10% return on investment. A re-analysis of the [Perry Preschool Program by Steve Barnett, Director of the National Institute for Early Education Research \(NIEER\)](#), found benefits rose to \$16 for every \$1 invested.

"Given this return on investment, providing support for early education is more prudent than waiting until high school when issues are often more difficult to remediate."

-- Brian Bucher, PNC regional President, Alabama School Readiness Alliance's Pre-K Task Force Members AL.com; June 6, 2016

Preschool quality is important primarily because children deserve a great experience. In addition, *only* high-quality programs have been shown to provide long-term benefits to children, families and communities. For children to benefit, investments must be adequate to create and maintain high-quality pre-K classroom experiences.

Did you know...

- Investing in high-quality preschool is a good bet: several studies looking at national, statewide and school districts programs show rates of return between \$2 and \$4 for every dollar invested in high-quality pre-K.
- ROI results from high-quality program models implemented with attention to high standards—similar to how MPG for a given auto may differ from EPA rating depending on specifics such as road conditions, maintenance and speed
- All children could benefit from high-quality preschool but the need – and the impact -- is typically larger for those growing up in poor families.

To learn more:

Investments in Young Children Yield High Public Returns
Rob Grunewald (Fall 2016)

<https://hcrs.dl.umn.edu/news/investments-young-children-yield-high-public-returns>



Why Quality Matters in Pre-K: Teachers

Pre-K classrooms are typically supervised by a lead teacher and an assistant teacher. Research has shown these adults play a crucial role in each child's academic and social/emotional development. The design and management of the classroom and how teachers interact with children make a big difference in child outcomes. High-quality preschool--and positive outcomes for children-- depend on knowledgeable, dedicated teachers and effective administrators.

Based on a review of the evidence, a committee of the Institute of Medicine and National Research Council of the National Academy of Science recommended lead preschool teachers have a bachelor's degree with specialized knowledge and training in early childhood education.¹ There is not much research on the qualifications of assistant teachers; however, the Child Development Associate (CDA) credentialing program has been recommended to help prepare assistant teachers to become teachers rather than permanent assistants.

Qualifications for teaching roles vary, but ongoing support is required. Effective pre-K teachers who are engaged with children in their teaching practices are also actively engaged in continuing professional development. The national standard, developed by the National Institute for Early Education Research, recommends more than 15 hours of training annually with no more than 50 percent focused on health and safety. In addition to training, coaching or ongoing embedded classroom support based on classroom observation is necessary to enhance teaching practices and provide high- quality, effective learning experiences for children.

“Young children’s learning and development depend on the educational qualifications of their teachers.”

– Diane Schilder, Ed.D., Principal Research Scientist, Education Development Center

Did you know...

- Good preschool teachers don't just focus on academics, but support each child's physical, cognitive, social, emotional, and moral development in partnership with parents.
- According to U.S. Department of Labor (2016), the median hourly wage for preschool teachers is less than \$14.
- Low wages and limited opportunity for professional development and support often leads to high rates of teacher turnover. High teacher turnover has been found to negatively affect children's social, emotional, and language development.

To learn more:

Early Childhood Teacher Education Policies Research Review and State Trends
CEELO Policy Report April 2016

ceelo.org/wp-content/uploads/2016/04/ceelo_policy_report_ec_teach_education_policies_final_for_web_2016_04.pdf



Why Quality Matters in Pre-K: Class Size, Student-Teacher Ratios

For young learners, smaller class sizes and lower staff-child ratios create conditions needed for increased levels of high-quality social and instructional interactions. A large body of literature establishes linkages between staff-child ratio, program quality, and child outcomes. With smaller classes and fewer children per teacher, children have greater opportunities for interaction with adults and can receive more individualized attention, resulting in increased learning that leads to better student outcomes.

Early education programs that have been evaluated and found to be effective all limit class sizes to fewer than 20 with teacher to child ratios of 1 to 10 or lower, including Boston’s Public School Prekindergarten Program, New Jersey’s Abbott Preschool Program, and Oklahoma’s Early Childhood Four-Year-Old Program. Small classes enable teachers to have more individual contact with each student and increase the likelihood of implementing differentiated teaching methods, resulting in meeting each student’s unique developmental needs.

Did you know...

- Smaller class size encourages intentional teaching that is child-centered.
- Teachers can provide more individualized attention, and engage in more dialogues with children—key factors in academic and social development.
- In smaller groups, child-initiated activities that foster creativity and vocabulary are more common rather than teachers managing the class by directing or scheduling activities. (*Eager to Learn*, National Research Council)

“Teaching young children requires immense energy and relentless attention. When there are fewer children in the room, the teacher has more time to devote to each child, and managing the group requires less teacher time. As a result, teachers have opportunities to have longer conversations with each child.”

– W. Steven Barnett, Ph.D., Senior Co-Director,
National Institute for Early Education Research

To learn more:

Class Size: What’s the Best Fit?

W. Steven Barnett Ph.D., Karen Schulman and Rima Shore (December 2004)

nieer.org/policy-issue/policy-brief-class-size-whats-the-best-fit



Why Quality Matters in Pre-K: Early Learning & Development Standards

Early learning and development standards (ELDS) are critical to quality, offering programs guidance and helping ensure the full range of areas essential to children’s learning and development is addressed. In 1991, the National Education Goals Panel² identified five areas of child development comprehensive standards: children’s physical well-being and motor development, social/emotional development, approaches toward learning, language development, and cognition and general knowledge.

To be useful, ELDS should be tailored to educating preschool-aged children, appropriate for their level of development as well as vertically aligned with state standards for both infant and toddler care and early elementary grades such as K-3 standards--which in turn should be aligned with state academic standards or career and college-ready standards.

These standards should be responsive to children’s diverse cultural and language backgrounds, and horizontally aligned with child assessments and curriculum implemented in the pre-K classroom. In order to support the use of the ELDS, pre-K programs need to have access to resources along with professional development opportunities. Support is needed for selecting or adopting curriculum that is aligned with the ELDS and then guidance for curriculum implementation with fidelity may come in the form of teacher training, ongoing technical assistance, or additional funding.

“Today, educators and leaders are faced with the challenge of building a developmentally appropriate primary school without sacrificing the academic rigor needed to support young children in achieving success in school and beyond.”

– NIEER Associate Research Professor Shannon Riley-Ayers, Ph.D.

Did you know...

- Learning and Development Standards should cover multiple domains of learning, be aligned with both K–3 or college & career ready standards and infant and toddler standards, consistent with child assessments, supported through professional development and/or additional resources, and culturally sensitive.
- Cultural sensitivity is key to creating a welcoming environment, teaching respect for diversity, supporting children’s ties to their families and community, and promoting second language acquisition and preservation of children’s cultural identities.

To learn more:

Child Outcome Standards in Pre-K Programs: What Are Standards; What Is Needed to Make Them Work?

Elena Bodrova, Deborah Leong and Rima Shore (March 2004)

<http://nieer.org/policy-issue/policy-brief-child-outcome-standards-in-pre-k-programs>



Why Quality Matters in Pre-K: Continuous Quality Improvement Systems

Just as we encourage children to master new skills, we expect adults to improve and enhance their own professional skills. To ensure public pre-K programs are as effective as possible, a system to assess program quality and external accountability is essential. Beyond monitoring programs, a continuous quality improvement system (CQIS) requires that each classroom receives an annual structured observation of classroom quality in order to gauge quality on a valid and reliable measure, and critically, information from the observation is used to help teachers improve their classroom practices.

Implementing a CQIS requires the use of a structured classroom observation tool. The three greatest cost drivers are the conducting of the assessments; establishing a system to ensure the reliability of the observations; and developing a system to collect and share the data with the pre-K program. It is recommended that classrooms be assessed annually to increase the probability that ratings would be valid given the high staff turnover in early childhood programs. Assessors are either employees of the state or contracted by the state to conduct observations. Even if they are contracted by the state, it is assumed that the state allocates resources to oversee the activities of the third party for quality assurance purposes.

“Beyond monitoring programs, CQIS requires that each classroom receives an annual structured observation of classroom quality in order to gauge quality on a valid and reliable measure, and critically, information from the observation is used to help teachers improve their classroom practices.”

–The State of Preschool 2016

To guarantee the reliability of the assessments, the person conducting the observations must be trained to reliability which may be an additional cost for the state. Even if the state is not providing the trainings, costs associated with assessor’s reliability testing or a data system to maintain assessors’ qualifications and status may be incurred by the state.

Did you know...

- “Continuous improvement” is an attitude that avoids blame and encourages excellence, teamwork and creativity.
- A CQIS codifies these attributes in practices that can be assessed and adjusted to enhance early learning outcomes.
- Research suggests CQIS can improve classroom quality and lead to positive child outcomes by focusing on active supports for good teachers to provide engaging, intentional and individualized education for every child.

To learn more:

A Blueprint for Early Care and Education Quality Improvement Initiatives
Kathryn Tout, Dale Epstein, Meg Soli, and Claire Lowe (2015)

childtrends-ciw49tixgw5lbab.stackpathdns.com/wp-content/uploads/2015/03/2015-07BlueprintEarlyCareandEd1.pdf