

Infrastructure Investment Begins with **CHILDREN**

Mav Pardee, Children's Investment Fund



When the topic is economic development, most people think about construction of roads and bridges and the effective functioning of capital markets. That's why many were surprised when economist Arthur Rolnick of the Minneapolis Fed declared that early childhood development was really economic development—economic development with a very high public return.¹

Rolnick and economists Rob Grunewald and James Heckman reviewed three carefully controlled studies of high-quality early-learning programs for children from birth to five. From those studies, the economists calculated high returns for children at risk, and even higher returns to the public in reduced spending on special education, social welfare, and health care.² (See “High-Quality Early Childhood Education Spending.”)

Nevertheless, there is an enormous disparity between the value of these programs and the funding needed to ensure high quality, which generally includes teacher qualifications, class size, good teacher-child ratios, a supportive emotional climate, cur-

ricula, cultural competency, and a safe and healthful physical environment.

Community-based nonprofits or small businesses operate most early-education and out-of-school-time programs. They exist at the margin of financial viability, especially programs that serve children on public subsidy, which are the focus of many efforts to close the achievement gap and reduce health disparities in America.

True Quality

In 1995, the “Cost, Quality and Outcomes” study garnered nationwide attention for its finding that only 14 percent of child-care centers provided a sufficiently high level of quality to support children's development. Twelve percent were rated as poor quality, and 74 percent were judged mediocre.³ The report deserves much of the credit for subsequent “quality improvement” categories in federal and state subsidized-care allocations.

Over the past decade, policies for child-care subsidies have continued to evolve, influenced partly by brain-development research showing the critical importance of the first five

years of life. Even the terminology changed—from “child care,” a support to help low-income single parents enter the workforce, to “early childhood education,” which emphasizes child development and learning.

Simultaneously, a parallel movement to raise teacher qualifications has emerged, with a growing emphasis on program accreditation and Quality Rating and Improvement Systems nationwide. The standards generally have four or five quality levels—for example, curricula, staff qualifications, learning environment, family involvement, and program management. Independent evaluators do the measuring, and participating providers receive technical support and incentives to improve.

Unfortunately, scant attention is paid to the design, layout, and functionality of the facilities that house the programs. Factors such as size, density, privacy, defined activity areas, a modified open-plan design, technical design features, and the quality of outdoor play spaces are known to correlate with children's cognitive, social, and emotional development.⁴ Noted Italian educator Loris

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Massachusetts Facilities Inventory

Early Childhood & Out-of-School-Time Facilities	Percentage Facing Problems
One or more classrooms without windows	20
Elevated CO ₂ levels in indoor air	22
Lack workspace for teachers	22
Inadequate heating & cooling of the space	34
Lack indoor active play space	54
Lack technology for teachers	65
Lack classroom sinks	70

Source: *Building an Infrastructure for Quality*, by Mav Pardee, Children's Investment Fund, 2011

Malaguzzi emphasizes that a well-designed environment is the “third teacher”—an understanding that American policymakers have been slow to adopt, especially for programs serving low-income children.

Use of in-kind space—including below-market rentals—is one of the most common strategies for managing operating costs.⁵ Low-cost space and difficulty paying for facility improvements highlight a fundamental problem. Public subsidy rates are established by state and federal regulation. Even with the income-based parent co-pay, rates do not cover the cost. The federal government recommends setting subsidy rates

at the 75th percentile of market rate, but those market rates are already artificially depressed through payment of low salaries, minimal benefits, low occupancy costs, and careful spending on other expenses.⁶ Consequently, programs must raise additional resources if they hope to achieve the level of quality Rolnick and colleagues cite.

A 2010 report by the Urban Institute made a link between financial stress and quality, noting that “classrooms with the lowest observed quality were typically in centers characterized as struggling financially.”⁷ The discrepancy between public subsidy rates and the cost of quality are common

nationwide. In Boston, reimbursements for early childhood services have fallen from 52 percent of market rate to 43 percent since the last report in 2009, and a similar rate structure is found statewide.⁸

First-Ever Report

This year, Children's Investment Fund released “Building an Infrastructure for Quality” on the first comprehensive inventory of early-childhood-education and out-of-school-time facilities in Massachusetts.⁹ It examined whether existing learning environments support educators' and policymakers' educational goals for children at risk—or whether some spaces might interfere with running a high-quality program. The Fund commissioned the inventory to review the effect of physical space on children's health and safety, behavior, physical development and cognition, and how adult workspace either enhances or impedes staff effectiveness.

First, evidence-based program-facility standards were compiled to measure space across three categories: regulatory, professional, and best practice.¹⁰ The inspection protocol measured 268 items that cover regulatory compliance, site elements, the building envelope, mechanical systems, and environmental health, plus a detailed review of children's activity spaces, adult work space, and outdoor play space. The Wellesley Centers for Women and a team from Boston-based On-Site Insight selected a random sample of 182 sites and made field visits to each to collect data.

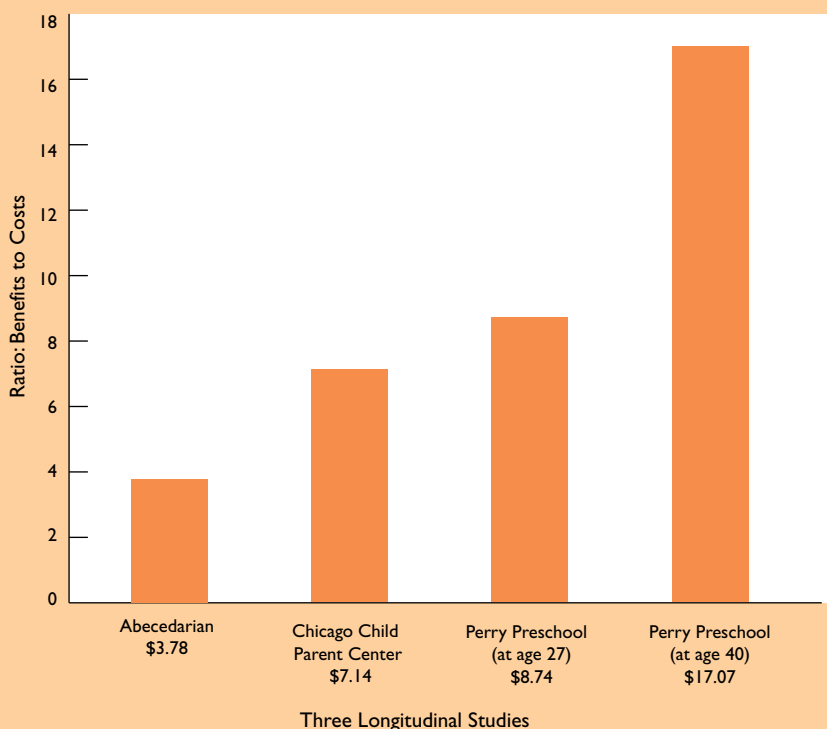
The inventory found that many sites faced the combined challenges of poor layout, outmoded features, and deteriorating conditions. Between 15 percent and 26 percent failed to meet current Massachusetts building-code requirements. And only one program—a center built the preceding year—met all accessibility guidelines.

A number of building deficiencies undermined the quality of teaching and children's learning, or presented health or safety concerns. (See “Massachusetts Facilities Inventory.”) Moreover, given widespread childhood obesity, it was discouraging that few sites had appropriate space for indoor active play in inclement weather. Many outdoor spaces lacked sufficient space for physically strenuous play. They also lacked trees or plants.

Another concern was the lack of adult workspace and the absence of appropriate technology, impeding the goal of developing a highly qualified workforce and possibly undermining other quality-improvement efforts.¹¹

High-Quality Early Childhood Education Spending

Return on investment



Source: *Enriching Children, Enriching the Nation*, by Robert G. Lynch, Economic Policy Institute, 2007.

It is true that Massachusetts, like other states, has invested significant private and public resources in quality improvement for early care and education and out-of-school-time services, particularly for low-income children. But quality—and the physical infrastructure to support it—is critical to fulfilling the state’s aspirations for these children, and clearly, the resources to fix problems cannot be found in program operating budgets. Children’s Investment Fund has therefore begun to pursue options for improving facility quality, some near term, some longer term. It is working with the business community, public officials, community development organizations, and funders to ensure that early care and education and out-of-school-time programs can make improvements. The following are among the strategies being pursued:

Ensure that repairs and hazardous conditions are addressed by making small grants available to nonprofit providers.

- Encourage green environments by working with utility companies to address energy efficiency that can generate operating savings and create healthier indoor spaces.
- Work with community development resources to identify capital for ensuring that community infrastructure includes early care and education and out-of-school-time facilities.
- Work with public officials, researchers, and advocates to expand the definition of quality to include the physical plant as the foundation of other quality initiatives related to children’s health, development, and education.

The issue is so urgent and the potential benefits so high that we need to find the public will to create affordable and sustainable financing to improve the buildings where the most vulnerable Massachusetts children spend their childhoods. There is no better public investment.

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Endnotes

¹ Arthur J. Rolnick and Rob Grunewald, “Early Education’s Big Dividends,” *Communities & Banking* 19, no. 2 (spring 2008): http://www.bostonfed.org/commdev/c&b/2008/spring/Rolnick_early_education_pays.pdf.

² “The Science of Early Childhood Development: Closing the Gap Between What We Know and What We Do” (white paper, National Scientific Council on the Developing Child, Harvard University, Cambridge, Massachusetts, 2007).

³ “Cost, Quality and Child Outcomes in Child Care Centers” (technical report, University of Colorado, 1995).

⁴ Gary T. Moore, “Ready to Learn: Towards Design Standards for Child Care Facilities,” *Education Facility Planner* 32, no. 1 (1994).

⁵ Monica Rohacek, Gina C. Adams, Ellen E. Kisker, Anna Danziger, Theresa Derrick-Mills, Heidi Johnson, “Understanding Quality in Context: Child Care, Communities, Markets, and Public Policy” (white paper, Urban Institute, Washington, DC, 2010).

⁶ In Massachusetts, full-time preschool teachers earn on average \$33,400, according to U.S. Department of Labor May 2010 data.

⁷ In low-income neighborhoods, space is chosen for size, cost, and location on commuting routes. Few providers can afford more than \$10 per square foot. More experienced providers seek \$6 to \$8 rates: churches, community buildings, Boys & Girls Clubs, residential buildings, former schools. In our sample, only 13 percent of centers were designed for child care.

⁸ October 2011 data from the National Women’s Law Center on state child-care assistance rates.

⁹ Mav Pardee, Martha McCahill Cowden, Theresa Jordan, Carl Sussman, “Building an Infrastructure for Quality: An Inventory of Early Childhood Education and Out-of-School-Time Facilities in Massachusetts” (report, Children’s Investment Fund, Boston, 2011), www.cccif.org.

¹⁰ “Program Facility Standards for Early Care and Education and Out-of-School Time Programs” (white paper, Children’s Investment Fund, Boston, 2011), www.cccif.org.

¹¹ The sample was drawn from communities with many low-income families. No programs were from Nantucket or Norfolk counties, for example, where fewer than 3 percent of families are below the poverty line.

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