



AN INITIATIVE OF

the de Beaumont Foundation + Kaiser Permanente



Pre-K in American Cities

Quality and Access Grow, but Cities are Missing Opportunities to Create Lasting Benefits for their Youngest Learners



ACKNOWLEDGMENTS

We would like to thank our peer reviewers:

Libby Doggett Ph. D.
Former Deputy Assistant Secretary of Policy and Early Learning
The US Department of Education 2013-17

Albert Wat, M.A.
Senior Policy Director, Alliance for Early Success

The views expressed in this report do not necessarily reflect those of the peer reviewers.

CityHealth, an initiative of the de Beaumont Foundation and Kaiser Permanente, provides leaders with a package of evidence-based policy solutions that will help millions of people live longer, better lives in vibrant, prosperous communities. CityHealth will regularly evaluate cities on the number and strength of their policies. <http://www.cityhealth.org/>

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

Pre-K in Large American Cities

CityHealth, an initiative of the de Beaumont Foundation and Kaiser Permanente, provides leaders with a package of nine evidence-based policy solutions that have the potential to help millions of people live longer, better lives in vibrant, prosperous communities. One of these policy solutions is access to high-quality Pre-Kindergarten (Pre-K), which can have significant health benefits for all children, regardless of family income or zip code, when the program's design adheres to proven practices.

High-quality, accessible Pre-K improves school readiness and success: children enter school better prepared and are less likely to repeat a grade or be referred to special education.¹ Long-term benefits include lower rates of crime and teen pregnancy, higher lifetime earnings, and better health outcomes.² Pre-K participants are also more likely to go to a doctor, receive immunizations and screenings, and, in programs that facilitate it, get dental care.³ The cognitive and social emotional gains children make in Pre-K are associated with improved health in adulthood.⁴ These benefits are widely recognized by the U.S. Centers for Disease Control and Prevention (CDC), the Institute of Medicine, and the American Academy of Pediatrics.^{5, 6, 7}

Pre-K Participation

LONG-TERM BENEFITS INCLUDE:

- Lower rates of crime and teen pregnancy
- Higher lifetime earnings
- Better health outcomes

PRE-K PARTICIPANTS ARE ALSO MORE LIKELY TO:

- Go to a doctor, receive immunizations and screenings
- In programs that facilitate it, get dental care
- Make cognitive and social emotional gains children make in Pre-K are associated with improved health in adulthood.

CityHealth awards gold, silver, bronze, or no medals in each of the nine CityHealth policies to the nation's largest 40 cities based on the quantity and quality of their policies and programs. For the past two years, CityHealth, in partnership with the National Institute for Early Education Research (NIEER), has assessed access to high-quality Pre-K programs and reported on the overall medal status for cities' Pre-K programs. A bronze medal signals that a city meets the criteria for access, a silver represents a city program that mandates quality but provides low accessibility, and a gold medal means that a city earned points for both quality and accessibility in its Pre-K program. In its most recent assessment, CityHealth awarded 5 gold, 8 silver, and 20 bronze medals to cities in Pre-K. This report analyzes findings on the key measures, ranging from class size to accessibility.

NIEER researchers found that many cities are offering Pre-K programs, but many of these programs lack key quality benchmarks that extensive research has shown deliver lasting benefits. They also found that many cities offer high-quality programs reaching too few children, which is defined as less than 30 percent of the eligible population of preschoolers. A positive trend is that the number of Pre-K programs is growing in U.S. cities, and much of this growth is fueled by cities' willingness to create new, local funding streams to establish and sustain the programs.

The Benefits of Pre-Kindergarten

Decades of research on Pre-K clearly show that high-quality programs for young children are highly effective interventions with lasting benefits. The positive effects of Pre-K include a significant reduction of the achievement gap, or the learning deficit that many children face when entering kindergarten, with results that are sustained throughout their educational experience.⁸

Additional research has found these benefits also include social and economic well-being, including improvements in physical health. For example, children who attend Pre-K are more likely to access health care services and receive better nutrition.⁹ Researchers have found that New York City's Pre-K services for 4-year-



olds increase identification of health and physical concerns, which results in earlier remedies.¹⁰ Adults who have attended Pre-K are far more likely to have improved health behaviors and better health, which lowers health care costs.¹¹ However, progress toward attaining widespread provision of high-quality Pre-K is slow.

PRE-K RECOMMENDED BY THE CENTERS FOR DISEASE CONTROL AND PREVENTION

The Centers for Disease Control and Prevention (CDC) identified Early Childhood Education (ECE) programs, such as Pre-K, as one of the most important and effective policies available to improve population health. The agency did this by including ECE in their Health Impact in Five Years (HI-5) list, which highlights the best non-clinical, community-wide approaches that have strong evidence showing 1) positive health impacts, 2) results within five years, and 3) cost effectiveness and/or cost savings over the lifetime of the population or earlier.¹²

CDC cited a rigorous evidence base for ECE fostering socio-emotional, cognitive, and motor skill development, as well as academic achievement. ECE also created longer-term benefits such as reductions in obesity, child abuse and neglect, youth violence, teen birth rates, and emergency room visits.

How Do We Define Accessible, High-Quality Pre-K?

This assessment is designed to determine: 1) the level of enrollment in the city's Pre-K program; and 2) which city (or state) Pre-K programs meet NIEER's 10 evidence-based benchmarks for minimum standards for highly effective programs. If a city lacked its own Pre-K program, NIEER used state data to represent that city's enrollment numbers. These represent the standards used throughout the country at the state level, which NIEER has been assessing since 2002 (State of Pre-school Yearbooks).¹³¹⁴. To aid policymakers and Pre-K practitioners, NIEER developed policy standards to help "benchmark" programs.

To do so, NIEER identified Pre-K programs that research found to produce large, broad, and lasting improvements in children's learning and development, and relied on systematic reviews of the literature to examine the results of all types of Pre-K programs.¹⁵ NIEER then identified common features of highly effective programs that differentiated them from less successful programs.

NIEER PRE-K QUALITY POLICY BENCHMARKS

| Policy Benchmark | Description | Why It Matters |
|---------------------------------------|---|--|
| Learning goals | Comprehensive early learning and development standards to guide teaching and assessment | Programs need clear and appropriate goals explaining what children are expected to know and be able to do when they complete Pre-K. |
| Curriculum supports | Guidance for choosing and using content-rich curriculum | Programs should use curricula designed for young learners that focus on language, literacy, mathematics, science, and social-emotional development. |
| Teacher education level | Lead teachers required to have a bachelor's degree | Teachers with higher education levels generally provide higher quality learning environments for children. |
| Teacher specialized training | Lead teacher has specialized training for teaching Pre-K | Teachers need to understand how to teach young children in ways that are consistent with a child's learning and development. |
| Assistant teacher education | Assistant teacher has a formalized entry-level credential such as the Child Development Associates | All members of a teaching team influence classroom quality, so assistants should hold at least an entry-level qualification for teaching young children. |
| Professional development | Ongoing training for teachers and assistant teachers | Professional learning, including coaching and other classroom support, produces high-quality learning experiences for children. |
| Maximum class size | Maximum number of children per classroom is 20 | Effective Pre-K programs have small classes, enabling teachers to understand and address each child's interests, needs, and capabilities. |
| Teacher-child ratio | Ratio of teachers to children is 1:10 or better | Working with small groups of children allows teachers to offer more individualized attention, which results in better outcomes. |
| Health screening and referral | Screenings for vision, hearing, health, and development concerns, along with referrals to needed services | Screening for health and development issues helps children get the help they need and often prevents later costly services. |
| Continuous quality improvement system | System to assess program quality used to guide improvement | Using data to inform program improvement helps educators provide the high-quality early learning opportunities children need. |

READ MORE ABOUT [NIEER'S METHODOLOGY](#).

sects

animal
FIRST

ence
oks

Feathers

No Feathers



Tell your ta
to Mr. E



Ocean
Habitats





Measuring big cities' high-quality pre-k programs by Quality and Enrollment

How did we award high-quality pre-K medals?

| | Bronze | Silver | Gold |
|---|--------|--------|------|
| Meets 8 out of 10 quality benchmarks for a Pre-K program (For detailed breakdown, please see the Data Dive section below) | ✗ | ✓ | ✓ |
| Over 30% of children enrolled in Pre-K programs | ✓ | ✗ | ✓ |

Why Quality Matters

Public investments in Pre-K education are motivated by the short- and long-term benefits they have been shown to produce. These include improved development and health in the Pre-K years that continues as children move through school and yields important economic benefits in adulthood in the form of increased productivity and earnings, decreased crime, and better health.¹⁶ This chain of benefits from cradle to career and beyond generates economic benefits far exceeding cost, making Pre-K programs a strong public investment.¹⁷ However, programs that do not meet high quality standards don't produce the same benefits, which is why it is important for policymakers to design programs that include benchmarks that have been proven to produce results.

City-by-City Assessment

The table that follows shows the **city-by-city results of NIEER's assessment**. Each city is listed, including its **CityHealth medal status**, which was assigned according to how many of the 10 quality policy benchmarks the city met, and whether the city enrolls at least 30 percent of 4-year-olds.

Data are also included to show whether a city's Pre-K program meets standards for teacher salary equity with K-12 educators, and whether the city has established a local funding stream to improve either quality or access of its Pre-K program. All Pre-K programs that have shown long-term benefits for participants have had highly qualified teachers paid at salaries comparable to those in the K-12 system.¹⁸

| City | Medal | TOTAL Benchmarks Met | Program Name | Learning Goals | Teacher Education Level (BA) | Teacher Specialized Training | Assistant Teacher Degree | Teacher Professional Development |
|--------------|---|----------------------|---|----------------|------------------------------|------------------------------|--------------------------|----------------------------------|
| Albuquerque |  | 9 | Preschool (operated by Albuquerque) | Yes | No | Yes | Yes | Yes |
| Atlanta |  | 6 | Georgia Pre-K | Yes | Yes | Yes | Yes | No |
| Austin |  | 6 | Austin Independent School District Prekindergarten program (AISD Pre-K) | Yes | Yes | Yes | No | No |
| Baltimore |  | 7 | Prekindergarten Program | Yes | Yes | Yes | No | No |
| Boston |  | 8 | Boston Preschool (K1 is for 4-year-olds; K0 for 3-year-olds) | Yes | Yes | Yes | No | Yes |
| Charlotte |  | 9 | NC Pre-K | Yes | Yes | Yes | Yes | No |
| Chicago |  | 9 | Preschool For All (PFA) | Yes | Yes | Yes | Yes | No |
| Columbus |  | 6 | Ohio Early Childhood Education Program | Yes | Yes | Yes | No | No |
| Dallas |  | 5 | Dallas Independent School District Pre-K (DISD Pre-K) | Yes | Yes | Yes | No | Yes |
| Denver |  | 5 | Denver Preschool Program (DPP) | Yes | Yes | Yes | No | Yes |
| Detroit |  | 9 | Great Start Readiness Program (GSRP) | Yes | Yes | Yes | Yes | No |
| El Paso |  | 4 | El Paso Independent School District Universal Pre-K | Yes | Yes | Yes | No | No |
| Fort Worth |  | 6 | Fort Worth Independent School District Universal Pre-K (FWISD UPK) | Yes | Yes | Yes | No | No |
| Fresno |  | 6 | Pre-Kindergarten (Pre-K) in Fresno Unified School District | Yes | No | Yes | No | No |
| Houston |  | 5 | Pre-K in Houston Independent School District (Pre-K in HISD) | Yes | Yes | Yes | No | No |
| Indianapolis |  | 1 | On My Way Pre-K | Yes | No | No | No | No |
| Jacksonville |  | 3 | Voluntary Prekindergarten Education Program (VPK) | Yes | No | No | No | No |
| Kansas City |  | 8 | Missouri Preschool Program (MPP) | Yes | Yes | Yes | No | No |
| Las Vegas |  | 6 | Nevada State Prekindergarten Program (State Pre-K) | Yes | Yes | Yes | No | No |
| Long Beach |  | 6 | California State Preschool Program-Part Day (CSPP) | Yes | No | Yes | No | No |

| Class Size | Teacher-Child Ratio | Health Screening/referral | Curriculum supports | Quality Improvement | Salary Equity | Enrollment | Local Funding Stream | Local Funding Designed to Improve Quality or Access |
|------------|---------------------|---------------------------|---------------------|---------------------|---------------------|------------|----------------------|---|
| Yes | Yes | Yes | Yes | Yes | No | Low | Yes | Access |
| No | No | Yes | Yes | No | Yes | High | No | None |
| Yes | No | Yes | Yes | No | Public schools only | High | Yes | Quality |
| No | Yes | Yes | Yes | Yes | Yes | High | No | None |
| No | Yes | Yes | Yes | Yes | Yes | High | Yes | Access |
| Yes | Yes | Yes | Yes | Yes | yes | High | No | None |
| Yes | Yes | Yes | Yes | Yes | Yes | Low | Yes | Access & Quality |
| No | No | Yes | Yes | Yes | No | Low | Yes | Access & Quality |
| No | No | No | Yes | No | Public schools only | High | Yes | Quality |
| No | No | No | Yes | No | Not Reviewed | High | Yes | Access |
| Yes | Yes | Yes | Yes | Yes | Yes | Low | No | None |
| No | No | Yes | No | No | Public schools only | High | No | None |
| No | No | Yes | Yes | Yes | Public schools only | High | Yes | Quality |
| No | Yes | Yes | Yes | Yes | No | High | No | None |
| No | No | Yes | Yes | No | Public schools only | High | Yes | Quality |
| No | No | No | No | No | No | Low | Yes | Access |
| Yes | No | No | No | Yes | No | High | No | None |
| Yes | Yes | Yes | Yes | Yes | Yes | Low | No | None |
| Yes | Yes | No | Yes | No | Public schools only | Low | No | None |
| No | Yes | Yes | Yes | Yes | Public schools only | High | No | None |

| City | Medal | TOTAL Benchmarks Met | Program Name | Learning Goals | Teacher Education Level (BA) | Teacher Specialized Training | Assistant Teacher Degree | Teacher Professional Development |
|------------------|---|----------------------|---|----------------|------------------------------|------------------------------|--------------------------|----------------------------------|
| Los Angeles |  | 6 | California State Preschool Program-Part Day (CSPP) | Yes | No | Yes | No | No |
| Louisville |  | 8 | Kentucky Preschool Program (KPP) | Yes | Yes | Yes | No | No |
| Memphis |  | 5 | Tennessee Voluntary Pre-K (VPK) | No | Yes | Yes | No | No |
| Mesa |  | 1 | Quality First Scholarships (QFS) | No | No | No | No | No |
| Milwaukee |  | 3 | Wisconsin Four Year Old Kindergarten Program (4K) | No | Yes | Yes | No | No |
| Nashville |  | 8 | Nashville Pre-K (NPK) | No | Yes | Yes | No | Yes |
| New York City |  | 8 | Pre-K For All | Yes | Yes | Yes | No | No |
| Oklahoma City |  | 6 | Oklahoma Early Childhood Four-Year-Old Program | No | Yes | Yes | No | No |
| Philadelphia |  | 8 | Bright Futures (only in public schools) Pre-K Counts | Yes | Yes | Yes | No | No |
| Phoenix |  | 1 | Quality First Scholarships (QFS) | No | No | No | No | No |
| Portland |  | 7 | Oregon Head Start Prekindergarten Program | Yes | No | Yes | Yes | No |
| Sacramento |  | 6 | State Preschool | Yes | No | Yes | No | No |
| San Antonio |  | 8 | San Antonio Independent School District Pre-Kindergarten (SAISD pre-kindergarten) | Yes | Yes | Yes | No | No |
| San Diego |  | 7 | State Pre-K | Yes | No | Yes | Yes | No |
| San Francisco |  | 6 | Preschool for All in San Francisco (PFA) | Yes | No | Yes | No | No |
| San Jose |  | 6 | San Jose Unified School District Preschool Program (SJUSD Preschool) | Yes | No | Yes | No | No |
| Seattle |  | 10 | Seattle Preschool Program Levy | Yes | Yes | Yes | Yes | Yes |
| Tucson |  | 1 | Quality First Scholarships (QFS) | No | No | No | No | No |
| Virginia Beach |  | 8 | Virginia Preschool Initiative (VPI) | Yes | Yes | Yes | No | No |
| Washington, D.C. |  | 3 | Pre-K | Yes | No | No | No | No |

| Class Size | Teacher-Child Ratio | Health Screening/referral | Curriculum supports | Quality Improvement | Salary Equity | Enrollment | Local Funding Stream | Local Funding Designed to Improve Quality or Access |
|------------|---------------------|---------------------------|---------------------|---------------------|---------------------|------------|----------------------|---|
| No | Yes | Yes | Yes | Yes | Public schools only | High | No | None |
| Yes | Yes | Yes | Yes | Yes | Yes | Low | No | None |
| Yes | Yes | Yes | No | No | Yes | High | No | None |
| No | No | No | Yes | No | No | Low | No | None |
| No | No | No | Yes | No | No | High | No | None |
| Yes | Yes | Yes | Yes | Yes | Yes | High | Yes | Access |
| Yes | Yes | Yes | Yes | Yes | Yes | High | Yes | Access & Quality |
| Yes | Yes | Yes | Yes | No | Yes | High | No | None |
| Yes | Yes | Yes | Yes | Yes | Yes | Low | Yes | Access & Quality |
| No | No | No | Yes | No | No | Low | No | None |
| Yes | Yes | Yes | No | Yes | No | Low | Yes | Access |
| No | Yes | Yes | Yes | Yes | Public schools only | High | Yes | Quality |
| Yes | Yes | Yes | Yes | Yes | Public schools only | High | Yes | Access & Quality |
| No | Yes | Yes | Yes | Yes | Public schools only | High | Yes | Quality |
| No | Yes | Yes | Yes | Yes | No | High | Yes | Access |
| No | Yes | Yes | Yes | Yes | Public schools only | High | No | None |
| Yes | Yes | Yes | Yes | Yes | Yes | Low | Yes | Access |
| No | No | No | Yes | No | No | Low | No | None |
| Yes | Yes | Yes | Yes | Yes | Yes | Low | Yes | Quality |
| No | No | Yes | Yes | No | Yes | High | No | None |

Highlights

The data in the table above offer the following insights about Pre-K in American cities:

I. ACCESS

Access to Pre-K programs is limited in most cities. Only 24 of the 40 largest U.S. cities (60%) offer a Pre-K program that reaches more than 30% of the 4-year-old population.

Ideally, cities would provide an opportunity for every child to attend high-quality Pre-K programs. Research has shown that children from low-income families benefit more and these effects are increased when they are in mixed-income classrooms. But preschool can be beneficial for children from all income levels and ethnic backgrounds.

Two cities stand out as exemplars for providing funding to allow all children to attend Pre-K programs: Washington, D.C. serves almost the entire population of 3- and 4-year-olds, and New York City serves almost all 4-year-olds and is scaling up to serve all 3-year-olds. Because of accessible state-funded Pre-K services at the state level in Florida, Georgia, and Oklahoma, programs in Jacksonville, Atlanta, and Tulsa serve most 4-year-olds. Other cities such as Seattle, Columbus, and Philadelphia have a plan to scale to full access by targeting low-income children first.

II. CLASS SIZE AND RATIO

Just over half of the largest U.S. cities (23 of 40, or 58%) meet quality benchmarks for Pre-K class size, which is one teacher and one teacher assistant for every 20 students.

Research indicates that class size should be limited to no more than 20 children, and classes should have no more than 10 children per staff member.¹⁹ Smaller classes and fewer children per teacher enable teachers to interact with each child more frequently, work with smaller groups, and offer each child more individualized attention, resulting in better outcomes. The smaller the class, the easier it is for a teacher to develop a good understanding of each child's interests, needs, and capabilities.

The programs found to have the strongest effects on children typically have had fewer than 10 children per adult. As with other structural features, ratio should not be expected to have a consistent impact on effectiveness independent of other program features.

III. TEACHER PREPARATION, PROFESSIONAL DEVELOPMENT, AND SALARY

Almost two-thirds of city programs (25 of 40, or 63%) require Pre-K teachers to have a bachelor's degree with specialized training in teaching young children. Most programs (34 of 40, or 80%) require at least some specialized training for teachers.

Only a small fraction of city programs (6 of 40, or 15%) require that all teaching staff receive ongoing professional development.

Only 15 (38%) of the rated city programs require that all teachers be paid comparably to those in the K-12 system.

Based on a review of the evidence regarding how young children learn, as well as research on program effectiveness, a committee of the Institute of Medicine and National Research Council of the National Academy of Science recommended that Pre-K teachers have at least a Bachelor of Arts degree with specialized knowledge and training in early childhood education.²⁰

In addition to the other benchmarks, adequate compensation is needed to attract and retain strong teachers regardless of qualifications requirements.²¹ Poor teacher preparation and inadequate pay cause financial strains on the system due to increases in recruiting, training, and retaining teachers. This leads to less effective and less cost-efficient programs. Programs that combine this with low enrollment, large class sizes, weak professional development support, and lack of continuous improvement systems are unlikely to positively impact children's development.

Pre-K 4 SA, a full-day Pre-K program in San Antonio, takes this even further, requiring that all teachers have bilingual expertise and are paid at a slightly higher rate than teachers in the K-12 system.

Public investments in Pre-K education are motivated by the short- and long-term benefits they have been shown to produce.

IV. SUPPORTING HEALTHY DEVELOPMENT

Few cities ensure that children are receiving critical health screenings. Less than a quarter of cities (9 of 40) ensure that children receive vision, hearing, health, and developmental screenings and referrals.

Pre-K participation offers an important opportunity for young children to access medical care and referrals to needed services that can serve as a crucial early intervention for children who are at risk. The strongest Pre-K programs ensure that children receive vision, hearing, health, and developmental screenings and referrals²² in addition to other support services that facilitate parent engagement such as parent education, parent conferences, and home visits (and that virtually all public Pre-K programs provide).²³

This benchmark recognizes that children's overall well-being and educational success involve not only cognitive development, but also physical and mental health.²⁴ These screenings and referrals should be available to every child through regular visits to a primary health care provider.

Recognizing that young children's access to health care may vary from the ideal, NIEER set as a benchmark that programs at least ensure that children in some way have received vision, hearing, and health screenings. Developmental screenings should be conducted by the Pre-K providers to identify children who may need more specific special education therapies and supports. This early screening for identification can reduce and even eliminate the need for later more costly interventions.

SPOTLIGHT: SEATTLE AND CINCINNATI COORDINATE SERVICES FOR EARLY LEARNERS

Cities have the opportunity to integrate Pre-K with other city services more readily than states or private Pre-K providers. Establishing an interagency coordinating council can facilitate integration across a number of important services for children and families. Seattle built on an already strong system coordinating health and mental health services between the city offices and the county's Public Health Seattle & King County Child Care Health Program to provide mental health and health services on site at Pre-K provider locations and specialized consultation to teachers.

Public school sites in the Cincinnati Preschool Promise program provide access to school-based health centers, school nurses and other school-based support groups. Although Cincinnati is not one of the 40 cities included in this analysis, the locally funded Cincinnati Preschool Promise has an innovative approach to education and health integration that should be considered by other cities.

V. SYSTEMS FOR IMPROVING QUALITY AND EFFECTIVENESS

Almost two-thirds of the city preschool programs (25 of 40, or 63%) have a coordinated system to monitor program implementation and use that information to improve Pre-K practices.

Designing and enacting a system of continuous quality improvement is a critical feature of effective programs and ensuring that funding is well spent. In cities where local funds have been allocated for Pre-K, many leaders feel an obligation to ensure the program is being implemented as intended, that decisions for improving the program are based on rigorous data collection and analysis, and that both process and outcome objectives are being met. A few cities stand out for their attention to establishing both a continuous improvement system and funding program evaluation to ensure that funds

are being invested well. Boston, Fort Worth, New York, Sacramento, San Antonio, and Seattle have implemented systems of quality improvement, and Boston, New York, Philadelphia, San Antonio, and Seattle have funded program evaluation efforts.

National Trends

Low Access to High-Quality Pre-K

<25% of 4-year-olds and a very small percentage of 3-year-olds have access to high-quality Pre-K.

NIEER calculates that at the nation's current rate of growth in Pre-K provision, it would take

150 years

to reach 75% enrollment, and much of that Pre-K provision would not meet the quality benchmarks necessary to create long-term benefits. The bright spot in this is the rise in locally funded Pre-K programs.

Cities Taking the Lead

Historically, few children in the United States were enrolled in Pre-K programs, but that began to change in the 1980s.²⁵ Today, most children spend time in a center-based classroom before they enter kindergarten.²⁶ However, access to quality Pre-K remains highly unequal, with low-income and minority children having the least access.²⁷

Most of the social determinants of education and health that characterize the gaps between the rich and everyone else, and between whites and people of color, result in a learning gap that is generated before children ever walk through the kindergarten door.²⁸

Why should cities be concerned? All communities can benefit from increased access to high-quality preschool programs. However, cities have particularly high numbers of the children who benefit most from such programs. Large urban areas not only have substan-

tial rates of child poverty, but also have more children in neighborhoods of concentrated poverty, a stronger association between poverty and school failure, and much higher percentages of children from minority, immigrant, and non-English language backgrounds.²⁹ City leaders and other proponents have found that when done right, this investment in preschool can strengthen the community in multiple ways, such as by stabilizing the child care system, improving health outcomes, reducing school costs in the form of special education and grade repetition, and discouraging urban flight.³⁰

Although city-funded provision of early care and education is not a new phenomenon, historically, the major focus has been to provide access to care that enables parents to work. These programs can be educational, but funding is rarely adequate to support quality. Cities are increasingly augmenting state and federal funds to enhance quality and access to programs expressly designed and funded to improve children's education and health outcomes.

Over the past decade, a number of high-profile city initiatives have emerged to focus on improving quality and access. For example:

- Boston's mayoral initiative funds a proven-effective program for all income levels and ethnic groups;³¹
- New York City's universal provision for 4-year-olds and proposed program for 3-year-olds is provided through a combination of federal, state, and local funds;
- Philadelphia's program is funded by a tax on sugary drinks;
- San Antonio's Pre-K 4 SA used a sales tax initiative; and
- The Seattle Preschool Program is levy-funded.

The initiatives are as varied as the cities themselves, but all were responses to common concerns—the importance of early learning for school readiness, positive development, and lifelong health, combined with concerns about the inequality of access to Pre-K and the high cost of good Pre-K programs. But even across new initiatives designed to be educational, the quality and access vary considerably.

Growth in Local Funding to Fuel Pre-K Programs

Most Pre-K programs are sustained primarily with state funds, but cities are starting to increase their investment in local Pre-K programs as evidence of their effectiveness has mounted. Local investment in Pre-K is now geographically diverse: large cities in 15 states across each region of the country are now enhancing Pre-K provision with local funds.

Half the nation's largest cities now raise local funds dedicated to improving quality and/or access to Pre-K. These include:

- Albuquerque
- Austin
- Boston
- Chicago
- Columbus
- Dallas
- Denver
- Fort Worth
- Houston
- Indianapolis
- Nashville
- New York
- Philadelphia
- Portland
- San Antonio
- San Diego
- San Francisco
- Seattle
- Virginia Beach
- Washington, D.C.

Recommendations

City leaders have a significant opportunity to strengthen their Pre-K programs. Cities with existing Pre-K programs can and should address gaps in the quality. These leaders should ensure that Pre-K programs reflect each of the 10 evidence-based quality benchmarks identified by NIEER.* Cities that have not yet developed a Pre-K program should design their programs with an eye toward these proven quality benchmarks. Doing so will ensure that local Pre-K programs are as effective as possible in achieving long-term benefits.

Specifically, cities should:

- Ensure that programs have fully qualified and supported teachers and reasonable class size and ratio – which are key ingredients for educational outcomes and will be the major cost drivers.
- Scale high-quality programs toward full access as quickly as possible. Every 3- or 4-year-old child who

* To see how the largest 40 cities in the US score when assessed on these benchmarks, go to p. 8.

does not have access to a high-quality Pre-K program will never have that opportunity again. Building on the current ECE system of child care and Head Start takes advantage of current expertise and makes rapid expansion more feasible.

- Design and implement a continuous improvement system of data-gathering at the child, classroom, and center levels to ensure progress and protect taxpayer investments.
- Consider developing new local funding streams to support the improvement and expansion of Pre-K programs. Cities across the country are innovating in this regard to expand enrollment and ensure that Pre-K programs are truly accessible and serving those who need them most.

This brief focuses on the quality of city Pre-K policies in the US, but it is essential to note that the importance of early learning interventions does not begin when a child is 3 or 4 years old, and there are important investments that cities can make in a child's life that start at birth. Crucial opportunities to ensure a child's healthy early development continue through grade school, and should be prioritized by any city government interested in supporting children and families.

Conclusion

The evidence is clear: high-quality, accessible programs can have long-term benefits for children, families, and communities. Quality Pre-K programs can help close the school achievement gap and improve access to crucial medical and mental health services, among other benefits. Cities have significant flexibility in developing high-quality Pre-K programs to meet the needs of their communities, and city leaders should continue to make progress toward funding and developing high-quality, accessible Pre-K programs.

CityHealth offers technical assistance to city leaders who want to improve their medal ranking and develop high-quality, accessible Pre-K programs. Find out more at <http://www.cityhealth.org/join-us>.

Endnotes

1. Barnett, W. S. (1998). Long-term cognitive and academic effects of early childhood education on children in poverty. *Preventive Medicine*, 27(2), 204-207.
2. Frede, E.C. (1998). Preschool program quality in programs for children in poverty. In Barnett, W.S., Boocock, S.S. (Eds.), *Early care and education for children in poverty* (pp. 77-98). Albany, NY: SUNY Press. More recently: Camilli, G., Vargas, S., Ryan, S., & Barnett, W. S. (2010). Meta-analysis of the effects of early education interventions on cognitive and social development. *Teachers College Record*, 112(3), 579-620.
3. Preschool attendance for low income children closed half of the school readiness gap. Weiland C. & Yoshikawa H.(2013). Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills. *Child Dev.* 84(6), 2112-30.
4. Barnett, W. S. (2008). Preschool education and its lasting effects: Research and policy implications (EPRU Policy Brief). Boulder and Tempe: Education and the Public Interest Center & Education and Policy Research Unit. Yoshikawa, H., Weiland, C., Brooksgunn, J., Burchinal, M., Espinosa, L. M., Gormley, Jr., W. T., Ludwig, J., & et al. (2013). *Investing in our future: The evidence base on preschool education*. Ann Arbor, MI: Society for Research in Child Development.
5. Karoly, L. A. (2016). The economic returns to early childhood education. *The Future of Children*, 26(2), 37-55
6. Ramon, I, Chattopadhyay, S.K., Hahn, R., Barnett, W.S., & the Community Preventive Services Task Force. (2016). Early Childhood Education to Promote Health Equity: A Community Guide Economic Review. Atlanta, GA: CDC, Community Guide Branch.
7. Friedman-Krauss, A & Barnett, W.S. (2013) Early Childhood Education: Pathways to Better Health. National Institute for Early Education Research Preschool Policy Brief Issue 25 <http://nieer.org/wp-content/uploads/2016/08/health20brief.pdf>
8. Ibid.
9. Centers for Disease Control and Prevention. Early Childhood Education: Helping children develop to the full potential and live healthy lives <https://www.cdc.gov/policy/hst/hi5/earlychildhoodeducation/index.html>
10. Shonkoff, J. & Phillips, D. (Eds.). (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Committee on Integrating the Science of Early Childhood Development, National Research Council and Institute of Medicine. Washington, DC: National Academy Press.
11. American Academy of Pediatrics. Policy Statement: Quality Early Education and Child Care From Birth to Kindergarten <http://pediatrics.aappublications.org/content/pediatrics/115/1/187.full.pdf>
12. Frede and Barnett (2011). Why Preschool Is Critical for Closing the Achievement Gap, *Principal*, v90 n5 p8-11.
13. Friedman-Krauss, A & Barnett, W.S. (2013) Early Childhood Education: Pathways to Better Health. *National Institute for Early Education Research Preschool Policy Brief Issue 25* <http://nieer.org/wp-content/uploads/2016/08/health20brief.pdf>
14. Hong, K., Dragan, K and Glied, S. (March, 2017) Seeing and Hearing: The Impacts of New York City's Universal Prekindergarten Program on the Health of Low-Income Children NBER Working Paper No. 23297 JEL No. I1,I20,I28,J13
15. Ibid
16. Centers for Disease Control and Prevention. Early Childhood Education: Helping children develop to the full potential and live healthy lives <https://www.cdc.gov/policy/hst/hi5/earlychildhoodeducation/index.html>
17. <http://nieer.org/state-preschool-yearbooks>
18. <http://nieer.org/state-preschool-yearbooks>
19. Barnett, W. S. (1998). Long-term cognitive and academic effects of early childhood education on children in poverty. *Preventive Medicine*, 27(2), 204-207.
20. Frede, E.C. (1998). Preschool program quality in programs for children in poverty. In Barnett, W.S., Boocock, S.S. (Eds.), *Early care and education for children in poverty* (pp. 77-98). Albany, NY: SUNY Press. More recently: Camilli, G., Vargas, S., Ryan, S., & Barnett, W. S. (2010). Meta-analysis of the effects of early education interventions on cognitive and social development. *Teachers College Record*, 112(3), 579-620.
21. Barnett, W. S. (2008). Preschool education and its lasting effects: Research and policy implications (EPRU Policy Brief). Boulder and Tempe: Education and the Public Interest Center & Education and Policy Research Unit. Yoshikawa, H., Weiland, C., Brooksgunn, J., Burchinal, M., Espinosa, L. M., Gormley, Jr., W. T., Ludwig, J., & et al. (2013). *Investing in our future: The evidence base on preschool education*. Ann Arbor, MI: Society for Research in Child Development.
22. Karoly, L. A. (2016). The economic returns to early childhood education. *The Future of Children*, 26(2), 37-55
23. Ramon, I, Chattopadhyay, S.K., Hahn, R., Barnett, W.S., & the Community Preventive Services Task Force. (2016). Early Childhood Education to Promote Health Equity: A Community Guide Economic Review. Atlanta, GA: CDC, Community Guide Branch.
24. Institute of Medicine and National Research Council (2015). *Transforming the workforce for children, youth through age 8*. Washington, D.C.: The National Academies Press. See also: Bowman et al. (2001), Minervino (2014), Whitebook, M., Howes, C., & Phillips, D. (1989). *Who cares? Child care teachers and the quality of care in America*. (Final report on the National Child Care Staffing Study). Oakland, CA: Child Care Employee Project.
25. Small class size and corresponding ratios have been hallmarks of the most effective programs, despite mixed, weak evidence for a relationship in many studies. Reynolds, A. J., Hayakawa, M., Ou, S. R., Mondí, C. F., Englund, M. M., Candee, A. J., & Smerillo, N. E. (2017). Scaling and sustaining effective early childhood programs through school-family-university collaboration. *Child Development*, 88(5), 1453-1465.
26. Perlman, M., Falenchuk, O., Fletcher, B., McMullen, E., Beyene, J., & Shah, P. S. (2016). A systematic review and meta-analysis of a measure of staff/child interaction

- quality (the classroom assessment scoring system) in early childhood education and care settings and child outcomes. *PLoS One*, 11(12), e0167660. Perhaps the best designed randomized trial of class size to date found substantive and lasting impacts on achievement and educational success for smaller class sizes in kindergarten. A staff-child ratio of 1:10 is lower than in most programs found to be highly effective and is the lowest (fewest number of children per teacher) generally accepted by professional opinion. Bowman et al. (2001). Frede (1998). NICHD Early Child Care Research Network (1999). Child outcomes when child care center classes meet recommended standards for quality. *American Journal of Public Health*, 89, 1072-1077. National Association for the Education of Young Children (2005). *NAEYC early childhood program standards and accreditation criteria*. Washington, DC: Author.
20. In addition to the limitations of the common assumption that teacher qualifications and other program features act independently, most studies suffer from the limitation that teacher qualifications and other key features are constrained by regulation so that variations in these features are unlikely to be random or independent of unmeasured program characteristics or contexts that affect outcomes. Bogard, K., Traylor, F., & Takanishi, R. (2008). Teacher education and PK outcomes: Are we asking the right questions?. *Early Childhood Research Quarterly*, 23(1), 1-6. Falenchuk, O., Perlman, M., McMullen, E., Fletcher, B., & Shah, P. S. (2017). Education of staff in preschool aged classrooms in child care centers and child outcomes: A meta-analysis and systematic review. *PLoS one*, 12(8), e0183673. Lin, Y. C., & Magnuson, K. A. (2018). Classroom quality and children's academic skills in child care centers: Understanding the role of teacher qualifications. *Early Childhood Research Quarterly*, 42, 215-227.
 21. King, E. K., Johnson, A. V., Cassidy, D. J., Wang, Y. C., Lower, J. K., & Kintner-Duffy, V. L. (2016). Preschool teachers' financial well-being and work time supports: Associations with children's emotional expressions and behaviors in classrooms. *Early Childhood Education Journal*, 44(6), 545-553. Whitebook, M., Phillips, D., & Howes, C. (2014). *Worthy work, STILL unlivable wages: The early childhood workforce 25 years after the National Child Care Staffing Study*. Berkeley, CA: Center for the Study of Child Care Employment.
 22. For some children, preschool provides the first opportunity to detect vision, hearing, and health problems that may impair a child's learning and development. This opportunity should not be missed. Meisels, S. J., & Atkins-Burnett, S. (2000). The elements of early childhood assessment. In J. P. Shonkoff & S. J. Meisels (Eds.). *Handbook of early childhood intervention* (pp. 231-257). New York: Cambridge University Press. Tout et al. (2013).
 23. Families are the primary source of support for child development, and the most effective programs have partnered with parents. Shonkoff & Phillips (2000). Bowman et al. (2001). Frede (1998). Yoshikawa et al. (2013).
 24. Blair (2002). School readiness: Integrating cognition and emotion in a neurobiological conceptualization of children's functioning at school entry. *American Psychologist*, 57, 111-127. Janus, M., & Duku, E. (2010). The school entry gap: Socioeconomic, family, and health factors associated with children's school readiness to learn. *Early Education and Development*, 18, 375-403.
 25. US Census Bureau. (n.d.). Pre-primary school enrollment (kindergarten, nursery) for children aged 3-5 years from 1970 to 2016 (in millions). In *Statista - The Statistics Portal*. Retrieved November 29, 2018, from <https://www.statista.com/statistics/184275/preprimary-school-enrollment-for-children-aged-3-5-years-since-1970/>.
 26. U.S. Department of Commerce, Bureau of the Census (2015)
 27. Nores, M. and W.S. Barnett (2014), *Access to High Quality Early Care and Education: Readiness and Opportunity Gaps in America (CEELO Policy Report)*, New Brunswick, NJ: Center on Enhancing Early Learning Outcomes.
 28. Barnett, W. S. & Lamy, C. (2013). *Achievement gaps start early: Preschool can help in Carter*, P. L., & Welner, K. G. (Eds.). *Closing the opportunity gap: what America must do to give every child an even chance*. Oxford: Oxford University Press.
 29. Parker, K., Horowitz, J., Brown, A., Fry, R., Cohn, D., & Igielnik, R. (2018). *Demographic and economic trends in urban, suburban, and rural communities*. Washington, DC: Pew Research Center.
 - Votruba-Drzal, E., Miller, P., & Coley, R.L. (2016). Poverty, urbanicity, and children's development of early academic skills. *Child Development Perspectives*, 10(1), 3-9.
 30. Barnett, W.S. & Frede, E.C. (2017). Long-term effects of a system of high-quality universal preschool education in the United States. In H.-P. Blossfeld, N. Kulic, J. Skopek, & M. Triventi (Eds.), *Childcare, early education and social inequality: An international perspective*. Cheltenham, UK: Edward Elgar Publishing.
 - Whitebook, M., Ryan, S., Kipnis, F., & Sakai, L. (2008). *Partnering for preschool: A study of center directors in New Jersey's mixed-delivery Abbott Program*. Berkeley, CA: University of California, Center for the Study of Child Care Employment.
 31. Preschool attendance for low income children closed half of the school readiness gap. Weiland C. & Yoshikawa H. (2013). Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills. *Child Dev.* 84(6), 2112-30.
 32. Centers for Disease Control and Prevention. *Early Childhood Education: Helping children develop to the full potential and live healthy lives* <https://www.cdc.gov/policy/hst/hi5/earlychildhoodeducation/index.html>



AN INITIATIVE OF

the de Beaumont Foundation + Kaiser Permanente

cityhealth.org



@CityHealthOrg



@City_Health



nieer.org



@PreschoolToday



@PreschoolToday