

THE 10

About The 10 | The 10 occasional series by AIR's Education Policy Center offers policymakers, educators and the general public accessible research-based information on pressing education issues.

EDUCATION POLICY Center
at American Institutes for Research ■

TEN QUESTIONS

Local Policymakers Should Ask About Expanding Access to Preschool

MAY 2016




Acknowledgments

The initial research for this report was funded by the Sonoma County Department of Health Services, Health Policy, Planning and Evaluation as part of a contract to suggest options for providing universal preschool in Sonoma County. The final report, *Analysis of Options for Funding for Universal Preschool in Sonoma County*, is available for download at www.air.org/preschool-sonoma. The authors wish to acknowledge three AIR colleagues: Kathleen Jones and Karen Manship for their contributions to the literature review for this brief, and Deborah Parrish for her review and helpful comments. The authors also wish to thank Jean-Marie Houston, Director, Early Learning Support Services, San Mateo County Office of Education, for reviewing and providing feedback.

Authors



Susan Muenchow is a principal researcher at AIR and author of the *First 5 California Preschool for All: A Toolkit*. She has conducted preschool research and planning at the federal, state, and local levels.



Emily Weinberg is a researcher at AIR who managed the Sonoma preschool funding options project. Recently, she estimated the cost of implementing universal preschool in Oakland, California.

Introduction

Children from low-income families are more likely to enter school with fewer skills identified as important for school readiness. This deficit in school readiness skills can be further compounded as children move through elementary school (Lee & Burkham, 2002; Mulligan, Hastedt, & McCarroll, 2012; Reardon, 2011). Unfortunately, the children who start behind tend to stay behind (Cunha & Heckman, 2007; Lee & Burkham, 2002).

Worried about the large number of young children from low-income families entering school in their communities, many city and county leaders wonder whether quality preschool might help close the school readiness gap. Longitudinal studies of model programs that began decades ago, such as the Perry Preschool Program and the Chicago Child-Parent Centers, show that these programs improved not only these children's school readiness but also their school completion rates and earnings as adults, saving taxpayers from \$11–17 per dollar invested (Reynolds et al., 2011; Schweinhart et al., 2005). Compared with children from low-income families who did not attend preschool, the graduates of these model programs had:

- Better pre-reading and pre-math skills when children start kindergarten
- Higher rates of school attendance and completion
- Reduced grade retention
- Reduced use of special education
- Greater likelihood of attending college
- Greater lifetime earnings

Similar quality programs, scaled up and made available to all four-year-olds as opposed to only those who are disadvantaged, are still projected to save \$2–\$4 for every dollar invested (Karoly & Auger, 2016; Karoly & Bigelow, 2005). As two thirds of mothers with children under age six are in the labor force (Bureau of Labor Statistics, 2015), many city and county leaders see a second possible benefit in preschool programs—helping accommodate working parents' needs for child care.

Fifty years after the implementation of the federally funded Head Start program, the program still serves less than half of the eligible children from low-income families (Schmit, Matthews, Smith, & Robbins, 2013). Although enrollment in state-funded prekindergarten programs in California has doubled since 2002, only 29 percent of four-year-olds are enrolled, and the quality varies greatly (Barnett, Carolan, Squires, Clarke Brown, & Horowitz, 2015).

Realizing what a good deal preschool might be for everyone—educationally and financially—some local preschool champions are unwilling to wait for federal or state action. They have started investing in expanding access and improving the quality of preschool provided in their communities, in many cases setting a goal for making quality preschool available to all families, regardless of income.

This 10 Series report summarizes our key findings about local preschool initiatives in 10 communities in the United States. Scaling up from a model program to citywide or countywide access is difficult, and the local leaders profiled in our study had to address key issues about the focus, scope, quality

components, duration, and rollout of their initiatives. Leaders had to determine an appropriate finance mechanism and develop the political will to secure it.

Based on our examination of these preschool initiatives, we developed 10 questions local policymakers and educators should ask as they consider action on preschool. Throughout we have added tables comparing all the sites' overall initiatives, operations, and funding mechanisms.

Ten Preschool Initiatives

AIR examined 10 preschool expansion initiatives chosen for their size, region, and/or innovative finance mechanisms. Of these, Salt Lake is targeted to low-income, disadvantaged children. The other nine are providing or working toward eventually providing universal access to preschool. The 10 initiatives are located in these cities:

Boston	San Antonio
Denver	San Francisco
Los Angeles (LAUP)	Seattle
New York City	Washington, D.C.
Salt Lake	West Sacramento



1

Should Preschool Be for All, or Only for the Neediest?

Of the 10 preschool initiatives we studied, nine aim to provide access to all four-year-olds (and in some cases three- and four-year-olds) regardless of family income. However, providing access to all does not necessarily mean making preschool *free for all*.

Many preschool initiatives start out by expanding and upgrading preschool in high-needs neighborhoods. They offer admission to all children, regardless of family income, who live in those neighborhoods. But even after full implementation, most of these largely urban initiatives, reflecting the substantially higher child poverty rate in larger cities (National Center for Children in Poverty, 2014), serve a higher proportion of disadvantaged children.

- Denver's program is now fully implemented and serves 54 percent of its four-year-olds; a majority of funds still go to children from low-income families.
- In San Francisco's fully implemented Preschool for All (PFA), more than 70 percent are enrolled in locations that are partially funded through Head Start or other subsidized programs for children from low-income families.
- San Antonio, while still aiming to make services universally available, has so far limited the program to four high-need areas of the city.
- New York City is unusual in that Mayor Bill de Blasio set a goal of providing access to all four-year-olds in the first year of implementation and in ensuring that programs are available in all neighborhoods (Kirp, 2016).

- Salt Lake is the only one of the initiatives we studied that targets children with high needs and does not make universal access a goal.

The principle argument for targeting preschool initiatives to disadvantaged children is that the public will receive a greater return on its investment in these children. But while the benefits are less dramatic for children from more advantaged backgrounds, attending a quality preschool program has been associated with higher achievement in elementary school for children in all income groups (Gormley & Phillips, 2005). Many of the problems that preschool programs aim to reduce (e.g., grade retention and school dropout) are relatively prevalent among children in middle-income families (Karoly & Bigelow, 2005).

Some research indicates that children who are disadvantaged do better when enrolled in preschool programs with peers from a variety of social and economic backgrounds (Schechter & Bye, 2007). Targeting a program exclusively to disadvantaged children may stigmatize them and could deter some families from participating, while turning away children who are in nearly as great need. Policymakers may also take into consideration the high cost of quality preschool, which approaches a year of tuition in a four-year college (Child Care Aware of America, 2014), and they might conclude that even middle-income families will have great difficulty paying for it.

2

Should Local Initiatives Focus on Four-Year-Olds, or Three- and Four-Year Olds?

Most of the 10 preschool initiatives limit or give priority to services for four-year-olds.

- Denver, San Antonio, Seattle, San Francisco, Los Angeles, and New York City primarily target the population of four-year-olds.
- Seattle will also provide preschool for three-year-olds who are at or below 300 percent of the federal poverty level.
- The most recent reauthorization of San Francisco's preschool program gives priority to four-year-olds, but a goal is to make services available to younger children as well.
- West Sacramento has broadened its goal to provide services for children from birth to age five, but because of insufficient funding, continues to focus first on universal access for four-year-olds.
- The District of Columbia and Salt Lake provide preschool to three- and four-year-olds, although Salt Lake's program is small and the District of Columbia serves more four-year-olds than three-year-olds.

Some suggest that it is wise to set a goal for offering preschool to both three- and four-year-old children, even if the initial focus is on four-year-olds. Two years of preschool may lead to better results than one year, although the impact of the second year may be less than from the first (Yoshikawa et al., 2013).

And a two-year focus provides flexibility for shifting any new local funds that become available to support three-year-old children if a future federal or state measure makes funds available to serve all four-year-old children.

Finally, policymakers may also want to consider extending some of the key features of preschool, such as family engagement and teacher support, beyond the preschool years, creating a P-3 continuum. For example, the Chicago Child-Parent Centers continued family engagement and teacher support through third grade. Doing so, and aligning the professional development for teachers and the progression of the curriculum for children, helps sustain the benefits of preschool through the elementary years (Karoly & Auger, 2016). In San Mateo County, California, the Big Lift initiative's goal is to increase the percentage of third graders reading proficiently from 57 percent to 80 percent. The initiative integrates high-quality learning experiences from preschool to third grade, including providing preschool to low-income three- and four-year-olds, focuses on reducing chronic absence and summer learning loss, and increasing engagement of

parents and the broader community in supporting learning in school and at home.

Table 1 shows an overview of preschool initiatives across the United States.



3

What About Teachers' Qualifications and Pay, Adult-to-Child Ratios, and Other Quality Factors?

Table 1. Initiative Start Date, Age Group, Target Population, and Number of Children Served

Preschool Initiative	Initiative Start Date	Age Group	Target Population	Number of Children Served
Boston: Boston Public Schools (BPS) Early Education	2005 ^a	Four-year-olds	Universal ^b	2,400 in 2014–15 school year
Denver: Denver Preschool Program (DPP)	2006	Four-year-olds	Universal	5,000 in 2015–16 school year
Los Angeles: Los Angeles Universal Preschool (LAUP)	2002	Four-year-olds	Universal	11,000 in 2014–15 school year
New York City: Prekindergarten for All	2013 ^c	Four-year-olds	Universal	53,000 four-year-olds in 2014–15 school year ^d
Salt Lake: School Readiness	2013	Three- and four-year-olds	Free and reduced-price lunch eligibility ^e	750 in 2015–16 school year
San Antonio: Pre-K 4 SA	2012	Four-year-olds	Universal but currently primarily serves children in need by Texas guidelines	1,500 in 2014–15 school year
San Francisco: Preschool for All (PFA)	2004	Four-year-olds	Universal	4,000 in 2014–15 school year
Seattle: Seattle Preschool Program	2015	Three- and four-year-olds	All four-year-olds are eligible; three-year-olds below 300% of federal poverty level are eligible. All families must be Seattle residents.	280 in 2015–16 school year
Washington, D.C.: Prekindergarten Enhancement and Expansion Program	2008	Three- and four-year-olds	Universal	12,426 in 2013–14 school year (86% of eligible population)
West Sacramento: UP4WS	2005	All children birth to age five	Universal	160 infants and toddlers and 200 three-year-olds in 2015 ^f

Source: Information included in this table was either provided during interviews or adapted from Boston Public Schools (2015); City of San Antonio (2015); City of Seattle (2015b); City of West Sacramento (n.d.a); Denver Preschool Program (n.d.); First 5 San Francisco (n.d.); Los Angeles Universal Preschool (2014a); New York City Office of the Mayor (2014); Office of the State Superintendent of Education (n.d.); Seattle Department of Education and Early Learning (2015).

^a BPS does not have the facilities space to serve all eligible children in the district. Because of these space constraints, recent demonstration programs were launched to pilot a mixed-delivery system.

^b The new pilot program provides access to four-year-olds below 200 percent of the federal poverty level.

^c Implementation of "Universal Preschool" first began in 1998. Recent expansion efforts began in 2013 and culminated at the start of the 2015–16 school year with a space for every four-year-old who wanted to attend.

^d This number increased to 68,547 for the 2015–16 school year (Kirp, 2016).

^e Granite School District also considers additional risk factors (e.g., parents with less than a high school education) due to a limited number of available spaces.

^f Unable to determine the number of four-year-olds participating because West Sacramento does not track enrollment, but there is a space for every four-year-old to attend.

Teacher qualifications, adult-to-child ratios, and approaches to assessing program quality vary across the preschool initiatives.

- Seattle, Boston, New York City, and the District of Columbia require lead teachers to have bachelor's degrees in early childhood education (ECE) or a similar field; participating teachers receive compensation comparable to that of public school teachers.
- Denver, Los Angeles, and San Francisco have less rigorous teacher qualification requirements but provide higher reimbursements to programs whose lead teachers have bachelor's degrees in ECE or a related field. These cities use their state or local Quality Rating and Improvement System (QRIS) as the framework for teacher qualifications as well as other quality factors, and providers must meet a specific rating level to participate.
- Almost all of the cities have requirements for maximum class size and staff-child ratios.

To encourage teachers to obtain more education, some initiatives offer professional development or tuition reimbursement.

- San Antonio, Boston, and Salt Lake offer the most in terms of professional development. These three provide regular coaching and professional development. San Antonio also offers tuition credits to preschool teachers who take courses leading toward degrees.

Research on the level of education needed for preschool teachers is complex. The “classic” programs, such as the [HighScope Perry Preschool Program](#) and the [Chicago Child-Parent Centers](#), for which longitudinal studies document positive child outcomes that endure into adulthood, had teachers with bachelor’s degrees in appropriate fields and compensation equivalent to that of K–12 teachers (Reynolds et al., 2011; Schweinhart et al., 2005). More recent studies of preschool programs in New Jersey and Tulsa, Oklahoma, show that positive outcomes feature teachers with qualifications and compensation similar to that of elementary school teachers, as well as ongoing teacher support, such as coaching and mentoring. We know of no preschool programs without well-qualified teachers that can



demonstrate dramatic gains in child outcomes. However, raising the teacher qualifications without providing equitable compensation may backfire, making it difficult to recruit teachers and contributing to high rates of turnover as the teachers who obtain the required degrees find better-paying jobs in the K–12 system (Pianta, Barnett, Burchinal, & Thornburg, 2009).

Many of the 10 preschool initiatives require that programs receive an independent assessment of classroom quality using the Early Childhood Environment Rating Scale (ECERS) or the Classroom Assessment Scoring System (CLASS). Scores on these assessments are factored into the overall quality rating of programs in Denver, Los Angeles, San Francisco, and Seattle, and the assessment is used as a foundation for professional development. The CLASS, in particular, focuses on the quality of teacher–child interaction.

Finally, although no single curriculum is used by a majority of the preschool initiatives studied, there is agreement about the importance of implementing one that supports learning through play to encourage curiosity, promote social and emotional development, and support emerging math and literacy. As important as the content of the curriculum may be, equally important is the fidelity with which it is implemented by the preschool director or coaches and teachers skilled in the use of the curriculum.

4

When Should Preschools Be Open?

Among the 10 preschool initiatives, we found three main options:

1. Half-day programs operating up to four hours per day—usually with two sessions serving different groups of children morning and afternoon.
2. Full-day programs operating up to 6.5 hours per day, which is the typical school day
3. Full-day programs operating eight to 10 hours per day, which is in line with the schedules of working parents

Some cities offer exclusively half- or full-day (defined as up to 6.5 hours) preschools; others give parents the option of either half- or full-day preschool.

- Boston, the District of Columbia, New York City, San Antonio, and Seattle offer up to 6.5 hours per day or require those hours from their providers.
- Salt Lake offers a half-day program and Los Angeles funds only a half-day program, although it may be embedded in a setting that offers full-day services financed by other sources.
- Denver, West Sacramento, and San Francisco support both half-day and full-day (up to 6.5 hours) programs at varying levels.
- None of the initiatives we studied defined a full day as eight or more hours, although San Antonio notably provides free extended-care services both before and after hours as needed.

Most of the initiatives we examined operate or fund preschool only during the school year (175 to 190 days per year), although Denver’s and a few

others, provide some funding for summer programs. Although families may be able to access summer services through the preschool initiative, the cost is paid either by family fees or by public sources separate from the main preschool initiative. Most of the programs profiled offer preschool classes five days a week. Salt Lake is an exception offering classes four days per week for four-year-olds and two days a week for three-year-olds.



5

How Much Does Preschool Cost?

The expenditure per child varies widely across the preschool initiatives—depending on quality requirements, teacher compensation, and the intensity of the program (see Table 2). Also, the reported annual per-child expense generally does not include the construction or renovation of facilities; as will be discussed in the section on preschool settings, some city and county preschool initiatives seek separate funds to address expansion and upgrading of facilities. It is important to emphasize that in many of the city and regional preschool initiatives we studied, the preschool initiative per-child expenditure only covers a portion of the full cost of the service. The remainder is covered by other publicly supported programs or by parent fees.

Boston, the District of Columbia, New York, San Antonio, and Seattle all fund programs offering at least six hours of instruction per day with relatively high-quality standards or requirements, and their expenditures per child range from \$10,000 to \$15,372 per year. A major portion of the expense in these initiatives is the compensation for lead teachers, who are required to have bachelor's degrees and in some cases master's degrees and/or early childhood certification. As shown in Table 2, these cities aim to provide compensation for lead teachers comparable with that of public elementary school teachers, although it is not clear that community-based settings offer the same salaries and benefits as public school settings.¹

¹ Our study focused on whether the local preschool initiatives aimed to provide compensation for lead preschool teachers similar to that of public school elementary teachers with similar qualifications. Because the precise level of public school teacher compensation varies based on the general economic climate in the region, we did not attempt to obtain the precise salary range and compensation.

Salt Lake's program, which provides only a partial-day, school-year program, has the lowest per-child expenditure. Requirements for lead teachers are less stringent, and the teachers are considered hourly employees so the expenditure per child does not include benefits for the personnel.

The per-child expenditure in Boston, Salt Lake, and San Antonio covers the full cost of the program. In San Antonio, \$14,500 per child covers the cost of the program, but professional development funds are not considered part of the per-child costs, even though the main funding mechanism (e.g., sales tax) funds professional development. In Boston, the expenditure per child is \$10,000–\$15,000 per year, depending on whether overhead is included, and this covers the full cost of the program. The Salt Lake Pay for Success bond covers the full cost of the program for the children participating in the bond program.

Expenditures per child in Denver, Los Angeles, and San Francisco are lower because these preschool initiatives provide only a fraction of the full cost of providing either a full- or half-day program.

Denver provides up to \$662 per month (or up to \$7,944 for a 12-month program) per child in the form of tuition credits to families with children enrolled in participating providers based on factors including family income, the quality rating of the providers, and other government subsidies. In Denver, the monthly per-child expenditure does not cover the full cost of providing full-day preschool for any children.

In Los Angeles, the proportion of the full cost covered by LAUP depends primarily on the level of support the program receives from other sources of publicly funded early care and education, such

as Head Start, Title 5 State Preschool, and state and federally subsidized child care. Similarly, in San Francisco, the preschool initiative per-child expenditure is viewed primarily as a form of quality enhancement to existing preschool programs, actually covering the full cost of service for only a small proportion of children.

Of the 10 initiatives we examined, New York City has the highest funding level and provides services to the most children, with 53,000 preschool spaces for four-year-olds for the 2014–15 school year. The New York City program is financed primarily by \$300 million in the city’s education budget that came from a state appropriation for universal preschool. This special allocation from the state was awarded in a compromise between the state and the city after the New York City mayor’s efforts to finance universal preschool through an increase in the city’s income tax were unsuccessful.

The District of Columbia’s preschool initiative has the next highest funding level, with more than \$191 million from sources including a set-aside in the city budget. More than 12,000 preschoolers, 86 percent of the District’s three- and four-year-olds—are covered. City council legislation requires the mayor to fund the preschool at this level.

San Francisco’s Preschool for All (PFA) has one of the more stable funding sources for preschool. As of 2014, it generated \$27 million per year and served approximately 4,000 children. First enacted in 2004, Proposition H created the Public Education Enrichment Fund (PEEF), one-third of which is reserved for universal preschool. The initiative was reauthorized in 2014, extended for 25 years, and expanded from a 3 percent set-aside of local property taxes to a 4 percent set-aside.

The fourth highest funding level for the preschool initiatives examined for this study is in San Antonio, where the sales tax increase generates \$31 million per year. The program currently (2014–15) aims to provide high-quality care to about 10 percent of the four-year-old children in the city. Although some expansion is underway, plans for major growth await a future election.

Table 2 shows preschool operations, qualifications, and compensation for programs across the United States.



Table 2. Teacher Qualifications, Hours and Days of Operation, Staff: Child Ratios, Teacher Compensation, and Annual Expenditure per Child

Preschool Initiative	Lead Teacher Qualifications	Hours and Days of Operation	Staff: Child Ratios	Teacher Compensation	Annual Expenditure per Child
Boston: Boston Public Schools (BPS) Early Education	Bachelor's degree and teaching credential with plans to receive a master's degree within five years	Six hours, school year	2:22	BPS teacher salary schedule	\$10,000–\$15,000 ^a
Denver: Denver Preschool Program (DPP)	No specific teacher qualifications but must be at least Level 3 on QRIS ^b	Varies depending on provider	1:10 ^c	Not specified; Varies by provider	\$290–\$6,800 ^d
Los Angeles: Los Angeles Universal Preschool (LAUP)	California Child Development Teacher permit, with higher payments for programs with degreed teachers	Varies by provider with a minimum of three hours, school year	1:8	Not specified; Varies by provider	\$960–\$4,950 ^e
New York City: Prekindergarten for All	Bachelor's degree and early childhood certification (three-year grace period to obtain) ^f	Six hours and 20 minutes, school year	1:7 for three-year-olds; 1:8 for four-year-olds ^g	\$44,000– \$55,000 ^h (similar to school district salary schedule)	\$10,200 ⁱ
Salt Lake: School Readiness	Child Development Associate credential or an associate's degree in early childhood education or a related field	Three hours, four days per week for four-year-olds and two days per week for three-year-olds, school year	1:10	Not specified; Varies by provider	\$1,550 for four-year-olds \$900 for three-year-olds ^j
San Antonio: Pre-K 4 SA	Certification in early childhood education, with most teachers having a bachelor's degree and some having a master's degree	Six hours, plus three hours and 45 minutes of extended care hours, school year	2:20 ^k	More than average school district teacher salary	\$14,500 ^l
San Francisco: Preschool for All (PFA)	Minimum of a California Child Development Teacher Permit plus higher payments for classrooms with a degreed teacher	Varies depending on provider	1:8 ^m	Not specified; Varies by provider	\$4,950–\$6,000 ⁿ (considered a quality enhancement)
Seattle: Seattle Preschool Program	Bachelor's degree in early childhood education or a bachelor's degree and a Washington State teaching certificate with a P–3 endorsement. Teachers have four years to meet this requirement.	Six hours, school year and calendar year	1:10	Comparable to public school teacher salary	Per-child reimbursement to providers ranges from \$8,000–\$10,000; cost per child including capacity building and infrastructure averages \$13,000 ^o
Washington, D.C.: Prekindergarten Enhancement and Expansion Program	Bachelor's degree or (for nonpublic schools) an associate's degree with plans to get a bachelor's degree by September 2017	Six and a half hours, school year	2:16 for three-year-olds and 2:20 for four-year-olds ^p	Comparable to public school teacher salary	\$15,372
West Sacramento: UP4WS	Bachelor's degree in early childhood education or child development	Varies depending on the provider	2:20 or 3:24 ^q	Commensurate with K–12 counterparts	Information not available

Source: Information included in this table was either provided during interviews or adapted from Barnett, Carolan, Squires, Clarke Brown, & Horowitz (2015); Boston Public Schools (n.d.); Boston Public Schools (2015); City of Seattle (2015b); City of West Sacramento (n.d.b); Denver Preschool Program (n.d.); First 5 San Francisco (n.d.); Los Angeles Universal Preschool (2014b).

Note: The California Child Development Permit minimum requirements for a teacher are 24 units of Early Childhood Education units plus 16 General Education units.

^a The value \$12,390 is the annual expenditure for the 2013–14 school year as reported in Karoly and Auger (2016).

^b No single requirement exists for teacher qualifications, but teacher qualifications are taken into account by the Colorado Shines Quality Rating and Improvement System (QRIS). Programs must have a Level 3 QRIS rating or be taking specific measures to reach that rating to participate in the initiative.

^c Programs must have a Level 3 Colorado Shines QRIS rating or be taking specific measures to reach that rating. Adult-to-child ratios are considered as a part of this rating process. Programs must be working toward meeting lower ratios than what state licensing requires, which is 1:10.

^d The value \$290–\$6,800 is the annual expenditure per child for a 10-month or school year program. This value is for full-day programs, depending on family income and provider quality (FY2016); expenditures are prorated for half- and extended-day programs. Providers vary in terms of the number of months that they provide preschool. Thus, annual per-child expenditures could range from \$290 to \$6,800 for a 10-month or school year program, or \$348 to \$8,160 for a 12-month program.

^e The value \$960–\$4,950 per child per year is for a maximum of 10 months depending on ZIP code of residence and whether the child is receiving a government subsidy (FY2014).

^f Teachers are given a three-year grace period to obtain the early childhood certification.

^g Class sizes and ratios are based on Department of Health regulations or licensing regulations. These regulations require a 1:7 staff-to-child ratio for three-year-olds with a maximum group size of 18 and a 1:8 ratio for four-year-olds with a maximum group size of 21 children.

^h As of the 2014–15 school year, all New York City universal preschool teachers are paid similar to school district-run programs or similar to the school district salary schedule. Starting pay for teachers with bachelor's degrees is \$44,000 and pay for teachers with master's degrees is \$55,000 as of the 2014–15 school year.

ⁱ This value is for the 2015–16 school year according to Kirp (2016).

^j Salt Lake's teachers are considered hourly employees, so the expenditure per child does not include benefits for the personnel.

^k There are eight floating assistants.

^l This value is for FY 2014 to FY 2021. This does not include facilities or professional development costs.

^m The maximum group size is 24 children. Head Start and Title 5 State Preschool can have ratio of 1:10.

ⁿ PFA reimburses from \$4,950 to \$6,000 per year per four-year-old child in FY 2016, based on lead teacher qualifications. In settings where child care subsidies support eligible child enrollment, PFA reimbursements are deducted from the applicable subsidy earnings (such as Alternative payment Program vouchers, California Department of Education, or Head Start) for that child's enrollment. In these cases, PFA does not fund the child's enrollment; rather, PFA funds an "enhancement" to the program, supplementing the subsidy.

^o The \$13,000 value is the average programmatic expense per child over the four-year demonstration phase. Per-child reimbursement varies between about \$8,700 and \$10,000 per year to contracted providers.

^p The staff-to-child ratio is 2:16 for three-year-olds and 2:20 for four-year-olds. Mixed-age classrooms follow the three-year-old standard.

^q These are staff-to-child ratios for preschool. The required ratios are lower for younger children.





How Do Cities Pay for Preschool?

Sales Taxes

Denver, San Antonio, and West Sacramento fund their preschool programs—at least in part—through a voter-approved, dedicated sales tax. Denver successfully imposed a 0.15 percent sales tax increase in 2006, after two prior efforts failed, by undertaking an extensive public education campaign that promoted the value of preschool to its citizens. The initial 2006 measure in Denver passed by just 50.6 percent of the vote (50 percent was required for passage; Murray, 2014). A renewal and expansion of the preschool measure in 2014 won by a more comfortable margin, 55 percent (Robles, 2014).

San Antonio's 0.125 percent sales tax increase passed in 2012 with 53 percent of the vote (Baugh & Cesar, 2012). West Sacramento's 0.5 percent sales tax increase was a general sales tax increase, and only some of the revenues are dedicated to preschool services (City of West Sacramento, 2006). The tax passed with 64.5 percent of the vote (Yolo Elections Office, n.d.).

The appeal of the sales tax is that frequently it is one of the few ways a city or county can raise sufficient revenue to support a large preschool initiative and that, once enacted, it may be likely to be sustained. The disadvantage in some states, such as California, is that a two-thirds majority of state voters is required to enact a sales tax dedicated to a specific purpose.

Property Taxes and Set-Asides

Property taxes are assessed on owners of “real property,” including residential and commercial properties. Seattle is funding its universal preschool program primarily through a property tax increase; the additional tax on a home valued at \$400,000 amounts to approximately \$43 per year. The city has a history of using the Families and Education Levy for education-related purposes (City of Seattle, 2015a). The tax increase passed in 2014 with 67 percent of the vote (Beekman, 2014). Similar to sales taxes used for specific purposes, in some states, such as California, property tax increases must be approved by two thirds of the voters (Institute for Local Government, 2008).

A set-aside or earmark is a commitment from a local government to use money from its general fund for a specific purpose. A set-aside can be a specific amount, a percentage of revenue, or a combination of both. Some advantages of set-asides include their predictability from year to year and their ability to get citizens involved in the voting process. Disadvantages include a lack of flexibility as circumstances change, such as during a budget crisis (SPUR, 2008). San Francisco and the District of Columbia largely fund their universal preschool programs through set-asides. San Francisco's set-aside was created by the passage of Measure H in 2004, which passed with more than 70 percent of the vote. San Francisco's set-aside from the general fund is financed by a 4 percent (initially 3 percent) set-aside from property tax revenues, but the set-aside did not increase the property tax.

Pay for Success

The Pay for Success program is similar to initiatives known in Australia and the United Kingdom as social impact bonds. Pay for Success is a relatively new funding model used in the Salt Lake region. It encourages partnerships among investment firms, government, and other nonprofits. Investors pay for social intervention programs or improvements up front, and the government agency returns the money with interest after the programs begin to provide savings in other areas. The funds are repaid only if there are savings determined by specific metrics and outcomes agreed on in advance.

Salt Lake has finished its second year of its School Readiness program, which expands preschool access for three- and four-year-olds from low-income families using Pay for Success. The program is based on a study by Voices for Utah Children (2011), which followed a cohort of children who attended high-quality Title I preschools in Salt Lake City's Granite School District. The study showed that these children used special education services at a much lower rate, resulting in reduced costs for the district. Because the preschool program provided such a well-delineated return on investment, early childhood leaders in the region felt it would make an excellent candidate for a Pay for Success bond. Goldman Sachs and philanthropic investor J. B. Pritzker fronted the funds for the initial investment (Meehan, 2013).

Supporters of the model suggest that shifting the financial risk onto private investors provides room for government agencies to experiment with new and different approaches (Hoback, 2015). However, some critics doubt that social impact bonds are likely to pay back enough to cover the costs of administering the initiative, much less reward investors. Some worry about the difficulty of quantifying outcomes and the risk of services being compromised by the incentive to hit specific targets (McHugh, Sinclair, Roy, Huckfield, & Donaldson, 2013).

Although the Pay for Success model may have its limits as a primary or long-term funding source for preschool, the Salt Lake stakeholders interviewed reported that the intent of this particular Pay for Success bond was not to serve every child from a low-income family in Salt Lake. Instead, they are taking the opportunity to reach out to low-income families and educate them on the importance of preschool and work with the Utah State Legislature to expand preschool opportunities throughout the state. It seems that this approach may be having some success.

The state legislature was initially unwilling to provide any support for Pay for Success, but in 2014, it enacted HB 96, which appropriated \$3 million to create the School Readiness Board that guarantees the Salt Lake Pay for Success project. It also offered competitive grants to other preschool programs that want to improve their quality standards in hopes of attracting future Pay for Success funding (Utah State Legislature, 2014).

Family Fees

Many of the preschool initiatives we examined provide more financial help to children from lower income families and significantly less support for children from higher income families.

- Denver, Los Angeles, San Antonio, San Francisco, Seattle, and West Sacramento charge fees to at least some parents. All programs that charge fees apply a sliding scale based on income, and most are free to children meeting eligibility guidelines, such as living at a certain percentage of the federal poverty level or eligibility for free or reduced-price lunch. Typically, parent fees are paid directly to the preschool provider, whether that is the initiative itself (San Antonio) or a partner provider (Denver, San Francisco, and Los Angeles).
- Seattle, which has just launched its program, plans to make preschool free to children from families below 300 percent of the federal poverty level, or \$72,750 for a family of four. The program will have a sliding fee schedule for children from higher income families. Families at or above 760 percent of the federal poverty level pay 95 percent of the tuition.
- Denver, which began implementing its universal preschool initiative in 2007, offers families preschool tuition credits ranging from \$29 to \$662 per month—depending on family income, level of service (half day, full day, or extended day), and the quality rating of the provider—toward the full cost of the program. By limiting the level of credit given to higher income families, Denver can provide some assistance to 54 percent of the 5,000 four-year-olds in the city.
- In contrast, preschool initiatives in Boston, the District of Columbia, and New York City offer free preschool to all age-eligible children regardless of family income.

Federal Title I

Federal Title I dollars for compensatory education are one of the oldest sources of public funding for preschool initiatives. Although Title I is a federal program, school districts may determine whether and how much of the money to use for preschool-age children. Boston and District of Columbia use Title I funds to support their preschool initiatives.

Title I funding for preschool is more flexible than other funding sources. In schoolwide Title I programs, the funds can be used for any child, regardless of family income, attending a Title I school, to improve the quality of service and compensation for personnel and extend the hours or days of service.

The primary disadvantage of Title I as a funding source for preschool is that it takes funding away from other grades. Title I supports students from prekindergarten to Grade 12. Nationally, only about 3 percent of Title I funds are used for preschool age-children (U.S. Department of Education, 2014).

Funding Sources for Facilities

Finally, cities and counties interested in expanding access to quality preschool face the major issue of facilities. In its planning for universal preschool, the city of Seattle's property tax levy included \$8.5 million for facilities improvement, expansion, and renovation. Seattle did not anticipate funding any new construction because of the time and money involved in building new facilities. San Antonio built four new facilities to house its program. The funding for the facilities in San Antonio came from a combination of the operating budget for the initiative

and facilities bond money left over from a previously approved bond. The city owns only one of the buildings and leases the other three.

As noted, however, preschool planners often seek additional, separate sources of funds to finance the construction or renovation of facilities. For example, San Francisco requires new office and hotel development projects to provide in-house child care or pay a fee to the city's Child Care Capital Fund (City of San Francisco, 2010). West Sacramento also levies a child care impact fee on new development. The city has used funds from this fee to provide capital improvements to its partner providers and to build two city-run preschool classrooms.

San Francisco and West Sacramento have also used Community Development Block Grant (CDBG) funds to help pay for preschool and child care facilities. These grants, administered by the U.S. Department of Housing and Urban Development, are primarily designed for low-income housing but can be used to support child care facilities that help low-income residents work. CDBG funding has two main forms: entitlement programs available to cities of 200,000 people or more as well as certain highly urbanized counties, and state programs, also known as the Small Cities CDBG program, available to smaller localities. The city of San Francisco has used CDBG funds in conjunction with the Low Income Investment Fund to plan and build new preschools.

Table 3 shows the funding mechanisms and funding levels for preschool programs across the United States.



Table 3. Funding Mechanisms and Funding Level

Preschool Initiative	Funding Mechanisms	Funding Level
Boston: Boston Public Schools (BPS) Early Education	City and school district budget, including Title I funds. ^a	\$24 million per year ^b
Denver: Denver Preschool Program (DPP)	Dedicated sales tax of 0.15 percent. DPP receives all its revenue for the preschool initiative from the sales tax. Providers may receive funding from other sources, such as state and federal subsidies and parent fees.	\$13 million per year from a sales tax increase (forecast to increase to \$19 million)
Los Angeles: Los Angeles Universal Preschool (LAUP)	First 5 California was the main source of funding through the 2014–15 school year. Parent fees, Race to the Top Grant funds, Quality Rating and Improvement System (QRIS) block grants, and private donations represent other sources of revenue. Many of the participating providers receive grants from Head Start, Title 5 State Preschool, and other state and federally funded programs.	\$48.6 million from First 5 LA, \$1.5 million in donations, and approximately \$25 million from other sources in fiscal year (FY) 2014
New York City: Prekindergarten for All	A state grant to the city is the main source of funding. Additional funds from local sources and other state grants also support the initiative.	\$300 million state grant in 2014 to fund full-day preschools; additional funds to expand half-day programs to full-day programs
Salt Lake: School Readiness	The Pay for Success bond is financed by Goldman Sachs and J. B. Pritzker, backed by the state of Utah. ^c	Initial investment of \$1 million for the first year and \$3 million per year for the remainder of the five-year period. ^d
San Antonio: Pre-K 4 SA	Dedicated sales tax of 0.125 percent is the primary funding source. Additional funding sources include state and local matching funds for a small portion of the children served, a Child and Adult Care Food Program grant, local donors, and parent fees.	\$31 million per year for eight years from a sales tax increase, plus state and local matching funds of \$3 million per year. ^e
San Francisco: Preschool for All (PFA)	Public Education Enrichment Fund (PEEF): A set-aside in the city budget initially funded by 4 percent reserved from the local property tax. ^f Developer impact fees and federal CDBG funds are used for facilities.	\$31 million annually from PEEF
Seattle: Seattle Preschool Program	A four-year property tax levy is the primary funding source. Sliding scale for parent fees for four-year-old children living at or above 300 percent of the federal poverty level; also leverages Head Start and state ECEAP funds. ^g	\$58 million across four years from property tax levy
Washington, D.C.: Prekindergarten Enhancement and Expansion Program	Public and charter school classrooms are primarily funded by the District of Columbia Public Schools, using the district’s per-child funding formula. Community-based organizations (CBOs) are funded by the city’s general fund. ^h Public schools also receive Head Start funding and funding for children with special needs.	The total prekindergarten spending by the district in FY 2014 was \$191,016,442, according to National Institute for Early Education Research report but may not include all the funds provided for CBOs.
West Sacramento: UP4WS	First 5 California is the primary funding source. First 5 Yolo, private donations, CDBG funds, a portion of a 0.5 percent city sales tax, district funds, and in-kind donations from the city also provide support for the initiative. ⁱ Developer impact fees are used for facilities.	For FY 2015: \$913,000 from First 5 California, \$100,000 from the city (dedicated sales tax), \$100,000 from First 5 Yolo; \$1.3 million each from the district and the county; CDBG funds; and grants from corporations and nonprofit organizations

Note. Information included in this table was either provided during interviews or adapted from City of San Antonio (2015); City of Seattle (2015b); City of West Sacramento (n.d.a); Denver Preschool Program (n.d.); First 5 San Francisco (n.d.); Los Angeles Universal Preschool (2014a); Samuels & Ash (2014); SPUR (2004); SPUR (2014); Stewart (2013); United Way of Salt Lake (2014); Watson (2010).

^a A federal preschool expansion grant is funding the demonstration program to expand access through a mixed delivery system. Foundation grants, Head Start, Temporary Assistance to Needy Families vouchers, and other government subsidies also support the demonstration program or preschool expansion grant providers.

^b The federal preschool expansion grant provides \$14 million across four years for the demonstration program.

^c Providers included in the Pay for Success bond also serve other children through Title I and parent fees. However, these other sources of funding (e.g., Title I and parent fees) are not used to fund children in the Pay for Success program.

^d Not all of the \$3 million is designated for this Pay for Success bond; some funds are designated for grants to improve preschool quality at other providers around the state, in hopes of attracting future Pay for Success funding.

^e State funding also covers less than 25 percent of the costs for eligible children. Funds from the sales tax cover professional development and facilities costs, which San Antonio does not include in its per-child expenditure.

^f The PEEF set aside was first passed in 2004 (Proposition H), expanded and extended in 2014 (Proposition C), with an increase in the portion reserved from the property tax from 3 percent to 4 percent. San Francisco PFA also received about \$10 million total in First 5 California funds from 2005 through 2015 to support the initiative.

^g Three-year-old children living above 300 percent of the federal poverty level are not eligible for the program.

^h No tax or other funding stream is specifically dedicated to preschool, so the money must be appropriated by the city every year. The Prekindergarten Acceleration and Clarification Emergency Amendment Act of 2010, which was passed by the city council, requires the mayor to fund CBOs at the levels specified by the 2008 act.

ⁱ First 5 California funding will no longer be available after 2015, so the current model is not sustainable. West Sacramento is currently searching for alternative funding sources (2015).

7

How Long Does It Take to Serve the Target Population?

Some of the initiatives, such as in Denver and New York City, attempted to serve their entire target population in Year 1, but most of the other initiatives chose to start small and gradually expand.

- San Francisco took 10 years to phase in access.
- Seattle planned to enroll about 270 children in 2015–16, with plans to expand to 2,000 by 2018–19.
- San Antonio will serve about 3,700 children by 2017, which is still a relatively small percentage (18.5 percent) of its approximately 20,000 four-year-old children. The city will seek further electoral support for this program before attempting to reach its full target population.

The length of each phase-in certainly takes into account available funding, but most of the preschool initiative directors, including those who had attempted a rapid implementation, advised a gradual phase-in to allow time for quality improvement and finding and preparing the right facilities.

Stakeholders in Seattle stressed that not starting out “too big, too fast” allows more flexibility down the road when additional state and federal funds may become available.

8

What Settings Work Best for Preschool?

The preschool initiatives examined fall into two broad categories: mixed-delivery systems and single-provider systems. In a mixed-delivery system, preschool services are located in different types of settings by a variety of providers—public schools, private schools, for-profit schools, community nonprofit centers, faith-based organizations, charter schools, or family child care.

In a single provider system, all providers are of the same type or there is only one provider.

Only two of the 10 initiatives we studied were single provider systems—Boston Public Schools (BPS) Early Education and San Antonio’s program, which is currently operated by a private nonprofit established just to administer preschool. However, both Boston and San Antonio are adding partners in other settings to complement their existing systems.

The other eight initiatives use some level of mixed delivery, though not every program is open to all types of partner providers. Seattle, the District of Columbia, and New York City do not currently partner with family child care providers. In almost all cases, partner providers are required to go through a competitive application process and meet quality standards. San Antonio and West Sacramento operate their own preschool classrooms and fund (or plan soon to fund) partner providers.

Whether using a mixed-delivery or single-provider system, city and regional preschool initiatives face challenges in offering safe and inviting facilities. Issues include providing enough space per child both indoors and on playgrounds; implementing architecture and furnishings that facilitate young children’s learning; and protecting children from lead, pesticide, and exposure to other health hazards (Boise, Smith, & Carey, 2004; Condon, 2010; The Building Child Care Collaborative, 2007). Including preschool facilities in school bond issues is one important approach, because local educational agencies already have experience in rapidly constructing educational facilities (Munger, English, Dow, & Brownson, 2007). However, even initiatives such as in Boston which start out exclusively in school settings, often find they do not have enough capacity to scale up to provide universal preschool. Determining how to assist participating community-based providers in addressing land use barriers, and in purchasing and upgrading facilities is also important.

9

Who Should Run Preschools?

There are many choices for the overall administration of local preschool initiatives. A school district operates Boston's program. City agencies administer the preschool initiatives in Seattle, West Sacramento, the District of Columbia, and New York City, whereas a nonprofit oversees administration in Denver, San Antonio, and Los Angeles. Until recently, San Francisco's initiative was administered by First 5 San Francisco; it is being transferred to a city government office. The Salt Lake initiative differs from the others because no single, overarching administrator manages the initiative. Six providers operate their programs independently; the United Way of Salt Lake, a nonprofit organization, coordinates communication among programs, investors, and the funding agency.

With the exceptions of Boston, West Sacramento, and San Antonio, the administering agencies do not operate any preschool classrooms. Instead, these agencies typically distribute funds and manage quality initiatives.



10

How Can Cities Win Public Support?

Almost every initiative studied had a local politician or other leader who took on preschool as a cause. In several cases, a city mayor or other elected official acted as an advocate for the preschool program. Mayors John Hickenlooper and Michael Hancock of Denver, Julián Castro of San Antonio, Ed Murray of Seattle, and Christopher Cabaldon of West Sacramento, as well as City Council President Tim Burgess of Seattle and Tom Ammiano of the San Francisco Board of Supervisors, were particularly instrumental in helping pass preschool ballot initiatives in their cities.

Mayors also have influenced the creation of preschool initiatives in other ways. In New York Bill de Blasio encouraged the state legislature to dramatically increase funding for the state's universal preschool program. In Boston, Mayors Tom Menino and Martin Walsh worked with the local school district to expand the city's preschools.

Community organizers and education advocates also can provide key leadership—particularly when their advocacy is combined with the clout of local leaders. In Salt Lake, the local United Way and local education leaders worked together to convince the state to back Pay for Success initiatives. In Washington, D.C., then-Council Chair Vincent Gray joined with advocacy groups to help pass the 2008 city council measure that funded universal preschool.

San Francisco preschool leaders stressed the importance of conducting polling to determine the needs and the type of education campaign required. These interviewees also indicated that the timing of the ballot initiative also could contribute to its

success or failure. For example, if the measure is on a ballot at a time when there will most likely be low voter turnout, the likelihood of the measure passing is small. If the measure is on a ballot when there will likely be other measures for voters to consider, the result also could be detrimental.

Building Public Support

A strong public education campaign was critical for Denver. The city's attempts to get universal preschool established go back to the early 2000s, when two attempts at passing an education sales tax failed, with less than 30 percent of the vote each time. When John Hickenlooper was elected mayor, he built a coalition to draft a proposal, and the city ran an extensive television campaign that raised public awareness—and most likely led to the successful outcome. Even with the extensive TV campaign, the November 2006 ballot measure was approved by fewer than 2,000 votes. When the initiative went back on the ballot in 2014, asking voters to extend the program until 2026 and raise the tax to 0.15 percent, the city cited improved third-grade standardized test scores from children who had been preschool students in the first few years of the program. Voters approved the 2014 measure with 55 percent of the vote.

Summary

Cities and counties are taking the lead on preschool because federal and state efforts have stalled or lost speed. “When states do not support high quality prekindergarten,” says Stephen Barnett, chief author of the National Institute for Early Education Research State of Preschool Yearbook, “communities should act on their own, as cities across the nation from New York to Seattle have done” (Barnett et al., 2015, p. 12).

Interestingly, city efforts to expand preschool are reminiscent of the local movements to expand kindergarten more than a century ago. The first public school kindergarten began in St Louis in 1873, followed by San Francisco (1880), San Jose (1886), and Boston (1887). It was not until the 1970s did kindergarten became widely available to all American children.

Leaders of city and county initiatives may hope that their preschool initiatives will “bubble up” to the state or federal level. As is clear from both New York City and Salt Lake, local actions are already precipitating more state support for preschool.

Beyond these 10 questions on how to implement and finance a preschool program, cities and counties will have to consider how to make local initiatives flexible enough to align with any emerging federal or state preschool initiatives. Given the variation in the regional initiatives developing, it will also be important to evaluate the initiatives’ impacts on program quality and access and on children’s school readiness and performance. Based on the history of K–12 in the United States, figuring out the best approach to preschool is likely to require a process of continuous improvement.

References

- Barnett, W. S., Carolan, M. E., Squires, J. H., Clarke Brown, K., & Horowitz, M. (2015). *District of Columbia: The state of preschool 2014: State preschool yearbook*. New Brunswick, NJ: Rutgers University, National Institute for Early Education Research. Retrieved from http://nieer.org/sites/nieer/files/yearbook2014_full.pdf
- Baugh, J., & Cesar, M. L. (2012, November 7). Local voters decide to put their money on Pre-K 4 SA. *San Antonio Express News*. Retrieved from <http://www.mysanantonio.com/elections/article/Voters-approve-Castro-s-Pre-K-plan-4014635.php>
- Beekman, D. (2014, November 5). Seattle voters OK preschool measure. *Seattle Times*. Retrieved from <http://www.seattletimes.com/seattle-news/seattle-voters-ok-preschool-measure/>
- Boise, P, Carey, J., & Smith, E. R. A. N. (2004). *Measuring environmental hazards in the childcare industry: Pesticides, lead and indoor quality. Survey brief*. Santa Barbara, CA: Community Environmental Council. Retrieved from http://www.issuelab.org/resource/greencare_for_children_measuring_environmental_hazards_in_the_childcare_industry
- Boston Public Schools. (2015). *Resource page for Boston Preschool Expansion Grant and Boston K1DS*. Retrieved from <http://bpsearlychildhood.weebly.com/boston-k1ds.html>
- Building Child Care. (2007). *Strategies for increasing child care facilities development and financing in California: Executive summary*. Oakland, CA: Author. Retrieved from <http://www.buildingchildcare.net/uploads/pdfs/bcc-strategies-exec-summary.pdf>
- Bureau of Labor Statistics, U.S. Department of Labor. (2015). *Employment characteristics of families—2014* [News Release]. Retrieved from <http://www.bls.gov/news.release/pdf/famee.pdf>
- Child Care Aware of America. (2014). *Parents and the high cost of child care*. Arlington, VA: Author. Retrieved from https://www.ncsl.org/documents/cyf/2014_Parents_and_the_High_Cost_of_Child_Care.pdf
- City of San Antonio. (2015). *Pre-K San Antonio: About*. Retrieved from <http://www.sanantonio.gov/Pre-K4SanAntonio/about.aspx>
- City of San Francisco. (2010). Sec. 414, Child-Care Requirements for Office and Hotel Development Projects. *San Francisco Planning Code* (Article 4: Development Impact Fees). Retrieved from <http://bit.ly/1QmoolL>
- City of Seattle. (2015a). *Department of Education and Early Learning: About the families and education levy*. Retrieved from <http://www.seattle.gov/education/about-us/about-the-levy>
- City of Seattle. (2015b). *The Seattle Preschool Program plan: Demonstration phase 2015–2018*. Retrieved from http://www.seattle.gov/Documents/Departments/OFE/AboutTheLevy/EarlyLearning/SPP_ProgramPlan2015-16_Final.pdf
- City of West Sacramento. (n.d.a). *History and information*. Retrieved from <http://www.cityofwestsacramento.org/city/depts/cmo/up4ws/facts.asp>
- City of West Sacramento. (n.d.b). *Quality preschool and childcare criteria*. Retrieved from <http://www.cityofwestsacramento.org/city/depts/cmo/up4ws/quality.asp>
- City of West Sacramento. (2006). *Measure K report*. Retrieved from <https://www.cityofwestsacramento.org/civica/filebank/blobload.asp?BlobID=2228>
- Condon, E. (2010). *Low Income Investment Fund (LIIF) letter to the California Early Learning Quality Improvement System Advisory Committee regarding facilities recommendations*. Washington, DC: Low Income Investment Fund, National Child Development Programs.

- Cunha, F., & Heckman, J. J. (2007). The technology of skill formation. *American Economic Review*, 97(2), 31–47.
- Denver Preschool Program. (n.d.). *About DPP: FAQs*. Retrieved from <http://dpp.org/about-us/faqs>
- First 5 San Francisco. (n.d.). *First 5 San Francisco*. Retrieved from <http://www.first5sf.org/>
- Gormley, W. T., & Phillips, D. (2005). The effects of universal Pre-K in Oklahoma: Research highlights and policy implications. *Policy Studies Journal*, 33(1), 65–82.
- Hoback, J. (2015). Private money, public impact. *State Legislators*, 41(5), 26–29.
- Institute for Local Government. (2008). *Understanding the basics of county and city revenues*. Retrieved from http://www.counties.org/sites/main/files/file-attachments/understanding_the_basics_of_county_and_city_revenues_ilg.pdf
- Karoly, L., & Auger, A. (2016). *Informing investments in preschool quality and access in Cincinnati: Evidence of impacts and economic returns from national, state, and local preschool programs*. Santa Monica, CA: RAND Corporation. Retrieved from www.rand.org/pubs/research_reports/RR1461.html
- Karoly, L. A., & Bigelow, J. H. (2005). *The economics of investing in universal preschool education in California*. Santa Monica, CA: RAND Corp. Retrieved from http://www.rand.org/content/dam/rand/pubs/monographs/2005/RAND_MG349.pdf
- Kirp, D. (2016, February 14). How to make pre-K a success. *New York Times*. Retrieved from http://www.nytimes.com/2016/02/14/opinion/sunday/how-new-york-made-pre-k-a-success.html?_r=0
- Lee, V. E., & Burkham, D. T. (2002). *Inequality at the starting gate: Social background differences as children begin school*. Washington, DC: Economic Policy Institute.
- Los Angeles Universal Preschool. (2014a). *10 years, 10 reasons to celebrate: 2014 annual report*. Retrieved from http://laup.net/documents/who_we_are/laup_annual_report_2014.pdf
- Los Angeles Universal Preschool. (2014b). *Operating guidelines*. Retrieved from http://laup.net/documents/for_providers/operating_guidelines/laup_operating_guidelines_fy_2014_2015.pdf
- McHugh, N., Sinclair, S., Roy, M., Huckfield, L., & Donaldson, C. (2013). Social impact bonds: A wolf in sheep's clothing? *Journal of Poverty & Social Justice*, 21(3), 247–257.
- Meehan, S. (2013, August 16). Pre-K program attracts investors out for returns. *Education Week*. Retrieved from http://www.edweek.org/ew/articles/2013/08/07/37preschool_ep.h32.html
- Mulligan, G. M., Hastedt, S., & McCarroll, J. C. (2012). *First-time kindergartners in 2010-11: First findings from the kindergarten rounds of the Early Childhood Longitudinal Study, kindergarten class of 2010-11 (ECLS-K:2011) (NCES 2012-049)*. Washington, DC: National Center for Education Statistics. Retrieved from <https://nces.ed.gov/pubs2012/2012049.pdf>
- Munger, M., English, S., Dow, S. S., & Brownson, K. P. (2007). *Policy recommendations on facilities for preschool and early education*. Washington, DC: Advancement Project.
- Murray, J. (2014, August 11). Denver City Council signs off on ballot measure to hike preschool tax. *Denver Post*. Retrieved from http://www.denverpost.com/news/ci_26317331/denver-city-council-vote-preschool-tax-increase-ballot
- National Center for Children in Poverty. (2014). *Child poverty pervasive in large American cities, new Census data show*. New York, NY: Author. Retrieved from http://www.nccp.org/media/releases/release_162.html
- New York City Office of the Mayor. (2014). *Ready to launch: New York City's implementation plan for free, high-quality, full-day universal pre-kindergarten*. Retrieved from <http://www1.nyc.gov/assets/home/downloads/pdf/reports/2014/Ready-to-Launch-NYCs-Implementation-Plan-for-Free-High-Quality-Full-Day-Universal-Pre-Kindergarten.pdf>
- Office of the State Superintendent of Education. (n.d.). *Early learning*. Retrieved from <http://osse.dc.gov/service/early-learning>
- Pianta, R. C., Barnett, W. S., Burchinal, M., & Thornburg, K. R. (2009). The effects of preschool education: What we know, how public policy is or is not aligned with the evidence base, and what we need to know. *Psychological Science in the Public Interest*, 10(2), 49–88.
- Reardon, S. F. (2011). The widening academic achievement gap between the rich and the poor: New evidence and possible explanations. In G. Duncan & R. Murnane (Eds.), *Whither opportunity? Rising inequality, schools and children's life chances* (pp. 91–116). New York, NY: Russell Sage Foundation.
- Reynolds, A. J., Temple, J. A., White, B. A., Ou, S. R., & Roberston, D. L. (2011). Age 26 cost-benefit analysis of the Child-Parent Center early education program. *Child Development*, 82(1), 379–404. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2010.01563.x/pdf>
- Robles, Y. (2014, November 5). Preschool program will continue to fund tuition for Denver 4-year-old children. *The Denver Post*. Retrieved from http://www.denverpost.com/news/ci_26871578/preschool-program-will-continue-to-fund-tuition-for-denver-4yearolds
- Samuels, C. A., & Ash, K. (2014, April 7). N.Y.C. hustles to make use of pre-K windfall. *Education Week*. Retrieved from <http://www.edweek.org/ew/articles/2014/04/07/28newyork.h33.html>

- Schechter, C., & Bye, B. (2007). Preliminary evidence for the impact of mixed-income preschools on low-income children's language growth. *Early Childhood Research Quarterly*, 22(1), 137–146.
- Schmit, S., Matthews, H., Smith, S., & Robbins, T. (2013). *Investing in young children: A fact sheet on early care and education participation, access and quality*. New York and Washington, DC: National Center for Children in Poverty and Center for Law and Social Policy.
- Schweinhart, L. J., Montie, J., Xiang, Z., Barnett, W. S., Belfield, C. R., & Nores, M. (2005). *Lifetime effects: The High/Scope Perry Preschool study through age 40* (Monographs of the High/Scope Educational Research Foundation, 14). Ypsilanti, MI: High/Scope Press.
- Seattle Department of Education and Early Learning. (2015). *Seattle preschool program*. Retrieved from <http://www.seattle.gov/education/child-care-and-preschool/seattle-preschool-program>
- SPUR. (2004, March 1). *Proposition H—public education fund*. Retrieved from <http://www.spur.org/publications/voter-guide/2004-03-01/proposition-h-public-education-fund>
- SPUR. (2008). *Setting aside differences: Should the city budget be decided at the polls?* Retrieved from <http://www.spur.org/publications/spur-report/2008-01-16/setting-aside-differences>
- SPUR. (2014). *San Francisco Voter Guide, November 2014*. Retrieved from <http://www.spur.org/publications/voter-guide/2014-10-01/november-2014-voter-guide>
- Stewart, K. (2013, June 15). Utah public preschool push gets \$7 million from private investors. *The Salt Lake Tribune*. Retrieved from <http://www.sltrib.com/strib/news/56457077-78/preschool-education-program-united.html.csp>
- United Way of Salt Lake. (2014). *Pay for Success*. Retrieved from <http://www.uw.org/our-work/cradle-to-kindergarten/pay-for-success.html>
- U.S. Department of Education. (2014). *Improving basic programs operated by local educational agencies (Title I, Part A)*. Washington, DC: Author. Retrieved from <http://www2.ed.gov/programs/titleiparta/index.html>
- Utah State Legislature. (2014). *Utah School Readiness initiative* (H.B. 96). Retrieved from <http://le.utah.gov/~2014/bills/static/HB0096.html>
- Voices for Utah Children. (2011). *A sustainable financing model: High quality preschool for at-risk children*. Retrieved from <http://www.uw.org/site-migration-archive/our-work/research-reports/a-sustainable-financing-model-for-high-quality-preschool-evidence-from-the-granite-school-district-in-utah-updated-10-26-11.pdf>
- Watson, B. H. (2010). *A case study of the pre-K for all campaign: How pre-K for all became the law of the land in Washington, DC*. New York, NY: Foundation for Child Development. Retrieved from <http://fcd-us.org/sites/default/files/Pre-K%20for%20All%20DC%20Case%20Study.pdf>
- Yolo Elections Office. (n.d.). *West Sacramento 1/2c sales tax*. Retrieved from http://www.yoloelections.org/election-returns/archives/20021105/wsac_k
- Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M. R., Espinosa, L. M., Gormley, W. T., & Zaslow, M. (2013). *Investing in our future: The evidence base on preschool education*. New York, NY: Society for Research in Child Development and Foundation for Child Development. Retrieved from <http://fcd-us.org/sites/default/files/Evidence%20Base%20on%20Preschool%20Education%20FINAL.pdf>



AMERICAN INSTITUTES FOR RESEARCH®

1000 Thomas Jefferson Street NW
Washington, DC 20007-3835
800.356.2735 | 202.403.5000

www.air.org
educationpolicy.air.org