
FINANCING A PRE-K EXPANSION IN DURHAM: LESSONS FROM OTHER COMMUNITIES

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EXECUTIVE SUMMARY

A growing body of evidence suggests that public investment in high-quality preschool programs improves school readiness, and produces significant and lasting impacts on children across a wide variety of outcomes (Currie, 1995; Currie, 2001; Dodge et al., 2016; Gormley and Phillips, 2005; Heckman, 2006; Ladd et al., 2013; Muschkin et al., 2015). Research suggests that the impact of high quality preschool services is especially robust among children from disadvantaged backgrounds, including low-income children and English Language Learners.

Analysis of Census data suggests that there is an unmet need for preschool services in Durham County, North Carolina. Of the approximately 2,000 4-year-olds in Durham living below 200% of the Federal Poverty level, only about 800 received preschool services during the 2015-2016 school year. This suggests that there is an unmet need of approximately 1,200 low-income 4-year-olds in Durham each year (Cummings, 2016).

Durham elected officials charged the Finance Subcommittee of the Durham Community Preschool Task Force with providing information about financial models that can support preschool expansion and eventually universal preschool in Durham. This Masters Project aims to contribute to the Subcommittee's efforts by presenting case studies and analysis of how communities around the country funded preschool expansions at the local level. The goal of this effort is to develop insights for the Task Force drawn from the real experiences of communities that are leading the effort to expand access to high-quality preschool ahead of state and federal efforts.

This paper is broken down into several sections. Chapters one through three introduce the challenge facing Durham, address contextual factors affecting preschool access in Durham and North Carolina more broadly, and overview preschool financing strategies available to local governments. Chapters four through eight provide analysis of five case studies of communities that increased access to preschool with local funds. Findings are based on in person and phone interviews and analysis of primary and secondary reports. Each case focuses on a unique financing strategy and identifies barriers and keys to success. Two communities studied (Denver and Boston) have pursued universal programs, while the other three (Forsyth, Wake and Salt Lake County) have expanded programs in a targeted manner. These include:

- Salt Lake County, UT – Pay for Success
- Denver, CO – Sales Tax and Sliding Scale Tuition Payments
- Forsyth County, NC – Philanthropy
- Wake County, NC – County Budget
- Boston, MA: Mixed formula (with emphasis on district
- funds

The paper concludes with implications for funding strategies in Durham:

Sustainable, successful expansions require significant public investment.

- County tax dollars are required for preschool expansion.
- Philanthropy can cover specific costs, but is not a reliable source of sustained annual funding.
- Pay for Success financing is a short-term solution that can help start up a program, but requires significant data collection, program evaluation and definition of clear success metrics be in place to attract investors. It also carries the risk of attracting additional public scrutiny.
- Additional funds should be allocated to engage the public and build broad public support for preschool expansion.

High quality programs are needed to produce results and merit significant public investment:

- Not all preschool programs are effective or high quality enough to produce results. It is important to allocate funds for program evaluation.
- It takes time to increase capacity and maintain high quality programming. Expansion efforts should be rolled out slowly to give providers time to respond, build capacity in the system, phase in tax increases to taxpayers, and maintain high program quality.

CHAPTER I: INTRODUCTION

According to the U.S. Department of Education (2015), approximately 4 million children nationwide currently attend publicly-funded prekindergarten programs. Access to preschool varies widely by geography, race, and family income. As a result of disparate access and inconsistent program quality, many children enter kindergarten a year behind their peers academically and socially. This is especially true for children from low-income and minority families (U.S. Department of Education, 2015). This lack of school readiness impacts children's ability to learn at the same level as their more prepared peers once they begin kindergarten, and detracts from future academic and life outcomes.

Heckman (2006) finds that children growing up in poverty are less likely to graduate high school, attend college, have high salaries or own homes, and are more likely to receive welfare as adults or engage in criminal activity. Fortunately, a growing body of evidence suggests that public investment in high-quality preschool programs improves school readiness, and produces significant and lasting impacts on children across a wide variety of outcomes (Currie, 1995; Currie, 2001; Dodge et al., 2016; Gormley and Phillips, 2005; Heckman, 2006; Ladd et al., 2013; Muschkin et al., 2015).

Based on this promising body of evidence and a desire to improve school readiness for Durham children, the Durham Board of County Commissioners, the Durham City Council and the Durham Public Schools Board of Education commissioned the Durham Community Preschool Task Force to craft a plan to ensure that all children have access to high quality preschool in Durham. The Task Force aims to create a plan for Durham to accomplish three major milestones: first, provide access to preschool for all low-income 4-year-olds; second, provide universal access for all 4-year-olds; and third, provide universal access for all 3-year-olds, prioritizing low-income children first.

The Finance Subcommittee of the Durham Community Preschool Task Force has been charged with providing information about financial models that can be used to support preschool expansion and eventually universal preschool. This Masters Project aims to contribute to the Subcommittee's efforts by providing case studies of how preschool expansions were funded at the local level. The goal of this effort is to develop insights for the Task Force drawn from the real experiences of communities that are leading the effort to expand access to high-quality preschool ahead of state and federal efforts.

CHAPTER 2: DURHAM

There are approximately 4,000 4-year-old children in Durham. Approximately 26% of these children come from families with incomes less than 100% of the federal poverty line, and 55% come from families with incomes below 200% of the Federal Poverty line (Cummings, 2016). Of the 13,360 K-3 students enrolled in Durham public and charter schools during the 2014-2015 school year, 18 percent were white, 45 percent were African-American, 31 percent were Hispanic and 6 percent were from other backgrounds (Cummings, 2016). About 70 percent of these children come from homes with incomes of less than 185% of the federal poverty level (Cummings, 2016).

Elementary learning outcomes show the need for improvement in Durham Public Schools. According to 2015-2016 test results, only 45.7 percent of third graders in Durham Public Schools score proficient in reading, and 52.2 percent score proficient in math (North Carolina Department of Public Instruction, 2016). Outcomes are worse for Hispanic and African American children. While 81.1 percent of white students in Durham Public Schools are proficient readers in third grade, only 34.7 percent of Hispanic students and 36.5 percent of African American students demonstrated proficiency (Cummings, 2016). These performance gaps begin early. According to mClass reading skill assessments, only 37.2 percent of Durham kindergarteners enter with on-level reading skills (Cummings, 2016).

NC Pre-K: The NC Pre-K program has garnered national praise; it is one of only six programs nationwide to meet the 10 quality benchmarks for preschool programs established by the National Institute for Early Education (NC Early Childhood Foundation, 2015). According to a 2015 evaluation conducted by University of North Carolina's Frank Porter Graham Child Development Center, children enrolled in the NC Pre-K program made significant gains in all domains of learning, including language and literacy skills, math skills and behavior skills. Further, the evaluators found that these results were robust for dual-language learners. Children with lower English language proficiency made greater gains than their peers in several domains, including language and literacy skills, math skills and general knowledge.

NC Pre-K is offered in a variety of settings by private licensed Head Start programs, private for-profit as well as non-profit child-care centers, and public schools. In order to qualify for participation in NC Pre-K and the state's subsidy programs, all public and private pre-K programs must earn high-quality ratings under the state's child-care licensing system (National Institute for Early Education Research, 2015).

To be eligible for the program, children must be 4 years of age and come from families that make no more than 75% of state median income (Piesner-Feinberg et al, 2015). Some students are eligible for the program based on other risk factors, including limited English proficiency, identified disability, chronic health condition, an educational need identified by a developmental screening, or whose parent is actively serving in the military (Piesner-Feinberg et al, 2015).

Funding: North Carolina currently invests in early childhood care and education primarily through three programs: The Child Care Subsidy Program, Smart Start and NC Pre-K. Additionally, federal programs like Title I, Head Start and Early Head Start support local access to pre-K and childcare for at-risk children.

During FY 2015-16, the state NC Pre-K program provided funding for 488 4-year-olds in Durham, the federal program Head Start provided funding for 174 4-year-olds and Title I provided funding for 330 4-year-olds for a total of 811 children served through public funds (Cummings, 2016). Additionally, Durham has committed some sales tax funds to support early childhood education. Total support for pre-K from the Article 46 sales tax for FY 2016-17 will provide an additional \$508,140 to support pre-K in Durham Public Schools (Durham NC Approved Budget 2016-17).

Durham's Partnership for Children (DPC) manages funds for Smart Start, NC Pre-K and Early Head Start, which are braided together in Durham to support children birth through five in early education programming, including Pre-K. The largest amount of Smart Start funds support a scholarship program that provides childcare vouchers for children aged birth to five to be served in four and five star centers. Durham's Department of Social Services also provides funds to support children in three, four and five star rated private child care centers.

According to DPC Executive Director Laura Benson (2017), DPC oversees \$1.7 million in funds that go to support children in high quality centers, rated four or five stars, through the Smart Start scholarship program. In addition, DPC oversees 1.8 million dollars that go directly to serve the 488 children in NC Pre-K. An additional \$1.3 million in Smart Start Dollars are paired with NC Pre-K money to support roughly 267 children in private pre-k centers. The NC Pre-K reimbursement is paired with Smart Start funds to increase the per-pupil reimbursement rate for providers with the goal of driving at higher quality. In addition to state funds, federal Head Start and Title I funds go to support children in Durham Public Schools and Head Start programs.

On a per pupil basis, North Carolina provides local administering agencies a reimbursement rate of \$600 or \$650 monthly per child for the 10-month NC Pre-K program through the North Carolina Partnership for Children. In Durham, DPC supplements these state funds with an additional \$300 or \$350 monthly reimbursement rate per child using Smart Start scholarship funds. These supplements increase the yearly reimbursement rate per pupil to roughly \$9500, which helps providers to drive at high quality programming (Benson, 2017).

However, these funding streams do not currently meet the local need, and there is presently no single funding source available to expand and sustain the level of quality preschool required in Durham. Of the approximately 2,000 4-year-olds in Durham living below 200% of the Federal Poverty level, only about 800 received preschool services during the 2015-2016 school year. This suggests that there is an unmet need of approximately 1,200 low-income 4-year-olds in Durham each year (Cummings, 2016). The cost of expanding a high quality program to fully subsidize these children has been roughly estimated by local leaders at up to \$20 million. This estimate includes the cost for providing high quality services (\$12,000 per pupil per year), startup costs, possible capital costs needed to provide additional facilities, and the cost of additional aspects to drive positive outcomes (including school

nurses and social workers, etc.) (Cummings, 2017). However, further clarification of expansion costs is needed to provide an accurate number based on further analysis.

Challenges:

Despite evidence of the success of these programs, funding remains a topic of political contention. The Child Care Subsidy, Smart Start and NC Pre-K programs are funded through state general funds, state lottery funds and federal funds. In recent years, the state decreased funding for these programs and increased reliance on federal funding. While state funding for the program has modestly increased since FY 08-09, Smart Start funds were cut by roughly 20% in 2011 and state and overall funding levels remain below pre-recession levels (NC Early Childhood Foundation, 2015; Benson, 2017). Under a 2013 proposal, North Carolina House legislators attempted and failed to limit access to the NC Pre-K program to children from families making no more than 100 percent of the poverty level, and remove automatic access for chronically ill children or children with limited English proficiency (Burr and Insko, 2013). Sponsor Representative Justin Burr, R-Stanly, said that the change would ensure that slots are reserved for children who are truly "at risk" (Burr and Insko, 2013).

In the midst of budget cuts and political instability, counties like Durham that wish to prioritize quality early childhood education programming are considering how to finance expansion at the district level. Durham's efforts to expand access to pre-k presently enjoy the attention and broad support of many elected officials and key stakeholders. Further, there is growing understanding among local leaders regarding the high potential for return on investment high quality early childhood programs (Benson, 2017). Durham's proximity to world class universities and research centers also increases its access to a talented and capable research community with the capacity to provide recommendations for high quality program evaluation.

However, this effort presents many challenges, such as determining costs for expansion, identifying sustainable sources of funding, ensuring political viability and balancing the priorities of diverse stakeholders. Durham presently lacks the capacity to absorb a large influx of students into preschool services, or absorb the significant tax increase required to expand access to serve all qualifying children (Cummings, 2017). Durham presently has the highest sales tax in the state, and any additional increases require approval by the General Assembly (Ibid). Further, it will be difficult to ensure the necessary broad public support to raise funds for the program's success, especially considering the high cost of the program, which requires significant upfront local investment but only delivers results over time. Additional challenges include ensuring and maintaining high quality among a variety of providers and settings, and determining and administering the appropriate long term evaluation strategy.

CHAPTER 3: LOCAL FINANCING STRATEGIES

Alongside state governments, local governments across the country play an important role in supporting improvements to preschool programs through local policy and financing. Cities across the country have expanded access to higher quality pre-K ahead of their respective states, partly due to inadequate or unstable state and federal funding. Cities like Denver, Boston, San Antonio, San Francisco, Seattle, New York City and others have expanded access (Barnett, 2016).

Table: Sample Approaches used by Local Communities to fund pre-K expansion

Community	Approach	Financing Mechanism
Boston, MA	Universal	City investment, philanthropy, federal funds
New York City, NY	Universal	State grant / State revenues
Seattle, WA	Universal	Property Tax
West Sacramento, CA	Universal	First 5 California
Los Angeles, CA	Universal	First 5 California
San Antonio, TX	Universal	Sales Tax
Washington, D.C.	Universal	Federal and local child care subsidies and copayments, grants
San Francisco, CA	Universal	Property Tax / dedicated fund
Denver, CO	Universal	Sales Tax
Tulsa, OK	Universal	State universal program, public private partnership, philanthropy
Salt Lake City, UT	Targeted	Pay for Success
Wake County, NC	Targeted	County Budget
Winston-Salem County, NC	Forsyth Targeted	Philanthropy
Philadelphia, PA	Targeted	City funds through soda tax

In North Carolina, several counties have made efforts to expand access to pre-k at the local level. Mecklenburg, Wake and Forsyth counties invest in early learning through their county budgets. The Wake County Commissioners made a budget pledge in 2015 to support expanded access to high-quality pre-K and Forsyth County approved a bond to provide additional pre-K classrooms (North Carolina Early Childhood Foundation, 2016). Durham and Buncombe counties have convened task forces to study their options for how to finance a pre-k expansion. Additionally, Durham increased local sales taxes to support early childhood education programming (North Carolina Early Childhood Foundation, 2016).

The North Carolina Early Childhood Foundation (2016) identified several funding options for local governments in North Carolina, described below. These include an item in a municipal or county budget, a local bond (usually for capital projects), increasing local sales tax or raising the rate of a property tax.

Funding Options for Local Governments

- *Item in a Municipal or County Budget:* Local governments cannot specify budget commitments at the line-item level for a specific purpose, like dollars to fund construction of five new classrooms. However, they can state a commitment to fund a specific program, and then allocate funds the department responsible for implementation through a resolution. For example, a county could state that it will invest in high quality pre-k through its budget, and work with the school district to allocate funding. In this instance, the department in charge of pre-k implementation (like the Durham Partnership for Children) identifies additional funds required, and local government leaders specify financial resources needed to implement expansion. County commissioners or city councilmembers then pass a resolution, and department heads commit the funds to provide the program or service.
- *Bond:* Local governments can issue bonds to provide funding for capital projects, like building or renovating new prekindergarten classrooms. Bonds are debt obligations that are purchased by investors and paid back by counties or municipalities with interest. Under this strategy, the local school board develops a proposal for how to use funding for a capital project. County commissioners must then approve the proposal, and then voters must approve the proposal through the ballot. The local government must prepare a feasibility study of their capacity to incur new debt and ability to repay debt, because bonds are issued against future anticipated revenues. The Local Government Commission at the State Treasurer's Office assists local governments with the bond design, sale and repayment process.
- *Local Sales Tax:* A local option sales tax is another option local governments in North Carolina can pursue to raise money towards funding a local universal pre-K system (Family Services, 2016). If approved by the public by referendum, counties can increase the sales tax by one-quarter of a penny (North Carolina Early Childhood Foundation, 2016). While the ballot cannot specify how the funds will be used, the County Board of Commissioners can adopt a resolution to designate plans for the additional revenue. The North Carolina Department of Revenue oversees collection of local sales tax revenue. The local sales tax applies to most goods and services subject to a sales tax, excluding food purchases, local motor vehicle taxes and utility taxes. In North Carolina, local sales tax options are limited to between 2 and 2.75 percent. Mecklenburg, Wake, Guilford, Forsyth, Orange and Durham counties have access to a state-approved additional quarter cent sales tax (North Carolina Early Childhood Foundation, 2016). However, Durham has presently used all of its approved sales tax allocation and would need to seek approval from the General Assembly for any further increases (Cummins, 2017).
- *Property Tax:* Another option available to local governments in North Carolina is to increase or earmark local property tax revenue. The Board of County Commissioners can increase property tax rates. Several local and

state governments have successfully funded early education initiatives using a portion of local property tax revenue. In North Carolina, local governments can raise property taxes to fund specific purposes designated by the North Carolina General Assembly, including community development programs and activities, child care, health and education (North Carolina Early Childhood Foundation, 2016). However, early childhood programs and initiatives are not explicitly named and therefore it is unclear whether they qualify under the approved programs listed. Property tax revenue goes to the local General Fund. While North Carolina's property tax rates are low compared to the rest of the nation, changes in housing values during periods of recession can create challenges in balancing local budgets reliant on property taxes (North Carolina Early Childhood Foundation, 2016). Further, Durham's property tax rates are high relative to the rest of North Carolina (Cummings, 2016).

- *Sliding Scale Payments:* Parent fees and sliding scale payment plans represent another potential funding stream to help reduce the public cost of financing high quality preschool programs. Under these graduated payment plans, families and government funds each support a portion of the per child tuition costs based on variables like the family income and program quality (while families below a certain income threshold do not pay a parent fee). Overall, government support helps to reduce the cost for working and middle class families, which results in wide support among the electorate. Seattle and Denver have relied upon these graduated payment plans to help finance their preschool expansion efforts.

In addition to the options available to local governments above, there are additional financing options that local governments can advocate for that require state policy action through the NC General Assembly. These include occupancy taxes on hotels and other accommodations, allocation of fees designated for a specific purpose, the establishment of a special taxing district to fund projects and services specific to a district, tax credits for early childhood education businesses or working families to fund early childhood services, and social impact bonds (North Carolina Early Childhood Foundation, 2016).

In the next few chapters, this paper will provide an analysis of five different communities that pursued a variety of financing methods to support pre-school expansion. Two of these communities (Denver and Boston) have pursued universal programs, while the other three (Forsyth, Wake and Salt Lake County) have expanded programs in a targeted manner. These include:

- Salt Lake County, UT – Pay for Success/Social Impact Bonds
- Denver, CO – Sales Tax and Sliding Scale Tuition Payments
- Forsyth County, NC – Philanthropy
- Wake County, NC – County Budget
- Boston, MA: Mixed formula

CHAPTER 4: SALT LAKE COUNTY, UT – PAY FOR SUCCESS / SOCIAL IMPACT BONDS

Summary Table: Utah High Quality Preschool Program (5-year program costs)

Total Served	Annual Costs Per Pupil	Total Funding	Results
3,500	\$2600	\$6.8 million	To date: 4.7% of “at-risk” students in Cohort 1 and 6.7% of students in Cohort 2 required Special Education services (goal is less than 5% requiring Special Education services)

Utah is the first state to use social impact bond financing to fund early childhood education programs, although the U.S. Department of Education recently awarded more than \$3 million to eight state and local governments to fund feasibility pilots to determine whether social impact bonds are a viable source of financing for their situation (U.S. Department of Education, 2016). Under this method, a local government sets a clear and measurable target for success, and promises to pay an external organization that is able to meet the designated outcome. Investors provide capital, and a third party evaluates outcomes. If the program is successful at meeting the established target goals, investors are repaid and earn return on their initial investment. This method allows local governments to invest in innovative methods for achieving social outcomes without the up-front risk.

Determining need: 25% of nearly 15,000 children under the age of five in Salt Lake City live in poverty (North Carolina Early Childhood Foundation, 2016). In recent years, the pre-k wait list for Salt Lake County’s Granite School District exceeded 1,000 children. Voices for Utah Children and the United Way of Salt Lake City analyzed student data collected between 2006 and 2009, and determined that 33% of children from low-income families placed in Granite School District’s preschool program who were likely to need special education services did not need those services after participating in the program (North Carolina Early Childhood Foundation, 2016). Based on these promising results, local leaders sought to expand preschool access to students on a high-need basis.

Financing the Utah High Quality Preschool Program: The Utah High Quality Preschool Program is the nation’s first preschool program that uses a “Pay for Success” approach to financing operations (Goldman Sachs, 2013). Private capital from the J.B. Pritzker Foundation and Goldman Sachs was used to finance an expansion of the Program to provide early education services to five cohorts of over 3,500 children in the Granite School District and Park City School District. The United Way of Salt Lake oversees the project, and is responsible for managing repayments to investors.

Under the plan, Goldman Sachs will loan up to \$4.6 million dollars to the United Way of Salt Lake, and J.B Pritzker will provide a subordinate loan of up to \$2.4 million dollars to the United Way of Salt Lake (Goldman Sachs, 2015). The Pritzker loan helps reduce risk to Goldman Sachs if the preschool program is not effective. Under the

contract, if results prove that the program has successfully achieved target outcomes, government pays back private investors with interest (Dodge, 2015).

Under the contract, school districts receive approximately \$2,600 per student annually, based on the “actual avoided costs” to provide special education and remedial services in general education classrooms (Goldman Sachs, 2015). Specifically, the contract specifies that investors will be compensated for each child that progresses through elementary school without requiring special education services (Dodge, 2015). Lenders will receive payments equal to 95% of savings from reduced special education costs per child or \$2,470 per child per year through sixth grade, at an interest rate of 5.0 percent (Goldsmith, 2015). After sixth grade, payments will be equal to 40% of the savings, or \$1,040 per child per year in avoided special education services (Goldsmith, 2015). If less than 50% of children require special education services, the investors are paid back in full and can potentially earn a positive rate of return on their investment (Dodge, 2015). If the preschool program fails to reduce special education services, the United Way and Salt Lake County are not obligated to repay the loans.

According to a fact sheet on the program released by Goldman Sachs (2013), after initial funding is exhausted, “subsequent investments will be made based on the availability of repayment funds from public entities that are realizing cost savings as a result of the program.” The potential savings associated with reduction in special education and remedial services exceed the potential payments to the lenders (Goldman Sachs, 2013). Additional benefits to this approach include that clear outcomes and levers are defined. Further, it allows government agencies to test innovations at low risk to taxpayers (Deseret News, 2015).

The Granite School District also offers scholarship opportunities and a sliding scale for tuition for families living within the District. For families who were not covered by the “Pay for Success” model or who do not live within the boundaries of a Title I school, the cost of pre-k ranges from \$125-\$140 a month for 3-year-olds and \$170 to \$190 a month for 4-year-olds (Granite School District Registration page).

Implementation: The first year of the program served as proof of concept. United Way of Salt Lake earmarked \$1 million to serve as the repayment fund for the first cohort of children, because Utah had not passed legislation that would allow for the state to join as the repayment agency. Salt Lake County also contributed \$350,000. The United Way partnered with Voices for Utah Children to help convene additional partners and investors to demonstrate the benefits of Pay for Success Financing to the State of Utah.

The second year included key policy change at the state level that allowed the State of Utah to invest in the program. The Utah State Legislature passed HB96 in March 2014, which established the School Readiness Board to utilize funds from the State budget to increase the quality of early childhood programming in Utah and to allow the Board to enter into “Pay for Success” contracts with private investors on behalf of the State.

Following this legislation, the State of Utah and the School Readiness Board contracted with the United Way of Salt Lake as an intermediary to commit to repay investors through the United Way if the program met target metrics. During the 2014-15 school year, financing from Goldman Sachs and the Pritzker foundation was used to finance early

education for 750 children and will finance preschool for 2,300 more children during the 2015-2016, 2016-2017 and 2017-2018 school years. Repayment will be based on scores from the Peabody Picture Vocabulary Test (PPVT) vocabulary assessment and student outcomes from kindergarten through 6th grade for students who scores indicate they are at the highest risk for special education services (based on if they scored at or below two standard deviations of the mean when they entered preschool). Repayment is based on the number of students who use special education services that were enrolled in the preschool program, as described above. HB96 capped investors' returns at 5% above the Municipal Market Data General Obligation Bond rate.

Results: Of the first cohort of 595 low-income children, 110 were identified as likely to need special education services in kindergarten. This was determined based on their scores on the PPVT. Students that test below average are at higher risk of requiring special education services, and will be tracked through 6th grade (Goldman Sachs, 2013). After participating in the pre-k program, only one student in the first cohort required special education services. The reduction in special education costs was determined to save schools \$281,500 in expected special education costs (calculated as savings of \$2,607 per child), which was returned to investors (Deseret News, 2015). Children will be monitored through sixth grade, and investors will be gradually repaid if preschool impact continues. Goldman Sachs (2015) estimates that if student performance continues as expected, the expected savings to the State of Utah for the first group of students will exceed one million dollars through 12th grade, and investors will earn return on their capital.

The 2015-16 Academic Year Longitudinal Progress Report of the program provides an update on outcomes. The report shows that 4.7% of children in the 2013-14 "at-risk" (or payout group) required special education services and 6.7% of children in the 2014-15 "at risk" group required special education services. The United Way considers 95% special education avoidance to be a good indicator of success. The first cohort is on track to meeting this goal,

What's next?

Next year (2017-18) will be the final year that a new cohort is added under the PFS Contract. Julie Ramos of United Way of Salt Lake County notes that local leaders are now looking for ways to continue financing the preschool expansion. They are hoping that the State of Utah will become the primary investor based on the success of the program, but are also looking for new investors to continue using a Pay for Success model. Ramos said that Goldman Sachs is not likely to renew the contract, as they are interested in helping other communities begin new programs.

Ramos considers the program a real success for United Way and the community, because they were able to increase the number of low-income students who enrolled in high quality preschool programs. Further, the Pay for Success program demonstrated that public investments to preschool are impactful and economically viable, and catalyzed legislative changes at the State level that increased public funding for other programs to expand high quality preschool grants to serve more children in the State.

while the second cohort is slightly above the desired outcome. Ramos noted that 6.7% is not considered as a source of concern by the organization, because it is only slightly above target and there are some children who do in fact require these services regardless of high quality early learning experiences.

Challenges:

1. **Gaining the approval of State legislature:** The project leaders faced challenges engaging local and state policymakers in a complicated financing structure. It was complicated to gain agreement from the legislature to enable private investors to partner with state and local school districts (North Carolina Early Childhood Foundation, 2016).
2. **Managing media criticism:** A 2015 article published by the New York Times was highly critical of the program design and success metrics. The article created a lot of controversy for everyone involved in the effort, including Goldman Sachs as investors and public leaders who championed expansion efforts (Ramos, 2017). The article challenged the PPVT as an accurate predictor of the future likelihood of needing special education services, and argued that Goldman may have “significantly overstated the effect that the investment had achieved in helping young children avoid special education” (Popper, 2015). Generally, the United Way’s Julie Ramos noted that public skepticism regarding the role of corporate investment in preschool is a significant factor that accompanies PFS efforts (2017).
3. **Managing stakeholders:** United Way faced many challenges balancing the competing visions and priorities of a variety of stakeholders (Ramos, 2017). Some local education stakeholders prioritized expansion, while investors were primarily focused on repayments. Managing these divergent groups required a lot of ongoing communication and time for program managers.
4. **Enrollment, competition and attrition:** Student attrition is a challenge because it is not uncommon among the population served by the program, and impacts the bottom line for investors if students who leave are part of the high-risk group of children whose outcomes determine repayment. Further, the Program has recently faced enrollment challenges. Local government efforts to help enroll children in the refugee population in Head Start program have drawn from the pool of eligible students from the Program, because Head Start programs do not count as of the Pay for Success program as they are not required to follow the same mandated quality requirements (Ramos, 2017).

Keys for Success:

1. **Evidence-based model and feasibility study:** An evidence-based model and a feasibility study were key factors to the success of this project. Before they pursued a Pay for Success model, the United Way of Salt Lake, Voices for Utah Children and the Granite School district conducted a longitudinal study of outcomes for low-income children who attended high-quality preschool in the Granite School District, beginning in 2010. This study demonstrated that “between 25 percent and 33 percent of the low-income 3- and 4-year-olds in the 11 most impoverished schools in GSD would be at the highest risk for school failure,” but that when they received high quality pre-school through GSD, they “entered kindergarten at

the top of their class and have significantly reduced the achievement gap in language arts and math” (Goldman Sachs, 2015).

The study looked at 3 cohorts of low-income children who attended GSD high quality preschool over a three-year period. 737 children in total were included in the study. 238 children were determined to be at the highest risk for school failure prior to the intervention. After the intervention, only 11 students had used special education services through 3rd grade. Further, the study found that the participants entered kindergarten at the top of their class, maintained high performance, and significantly narrowed or closed the achievement gap in language arts and math (Goldman Sachs, 2015). These results held for more than five years.

This longitudinal research study established that high-quality pre-kindergarten demonstrated significant reductions in costs. This laid the foundation for a Pay for Success transaction. Any district or county hoping to pursue a Pay for Success model would first need to establish high cost avoidance associated with attending high quality pre-kindergarten in their specific district context.

Julie Ramos of United Way (2017) emphasized the importance of having an independent third party evaluator involved from the beginning of the evaluation process. She also emphasized that program evaluators need to select a clear proxy indicator for success that can be measured relatively well in the short term and tied to a financial outcome in order to attract investors (such as special education avoidance, which was the metric used in this example). While other outcomes, like high school graduation rates or workforce participation rates, are strong indicators of success, investors require short term indicators for participation.

CHAPTER 5: DENVER, CO – SALES TAX AND SLIDING SCALE SUBSIDIES

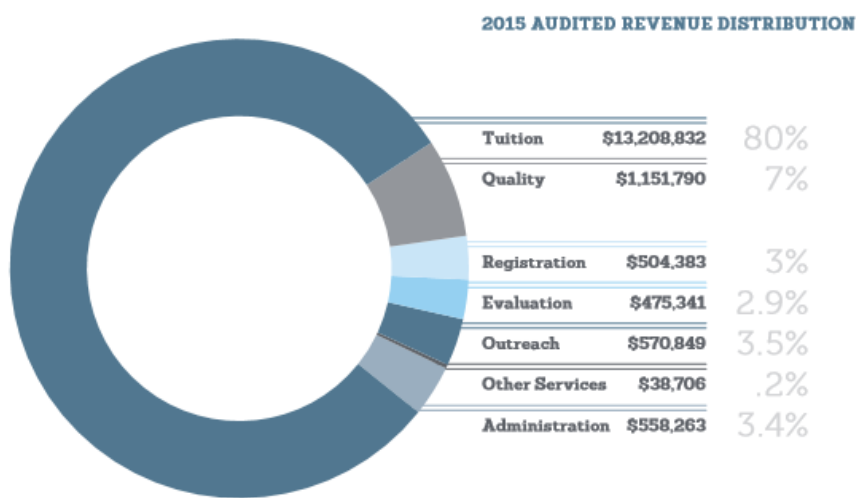
Summary Table: Denver Preschool Program (2015-16)

Total served	Costs per pupil	Funding	Results
5,000	\$3190 - \$3828	\$16.5 million	64% of DPP students vs. 56% of non-DPP students scored proficient in reading in third grade.

The Denver Preschool Program: The Denver Preschool Program (DPP) is a universal effort to provide preschool for all children in Denver at free or reduced cost. DPP is an independent nonprofit organization under contract with the city of Denver, which administers the local preschool initiative. DPP partners with nearly 250 quality-rated preschool sites throughout the city and county of Denver to implement the program (Denver Preschool Program, 2015). Sites include community-based centers, family child care homes, and Denver Public Schools classroom. Denver’s program is fully implemented presently, to the extent that present funding levels support. In 2013, 5,000 children were served. This represented about 54% of eligible children.

Funding: Denver funds DPP through a voter-approved, dedicated sales tax. Presently, a dedicated sales tax of 0.15% is the primary funding mechanism for Denver’s Preschool Program, up from 0.12% in 2014 (Weinberg et al., 2016). The Denver Preschool Program receives all its revenue from the sales tax, which is the only source of

FIGURE 1: BREAKDOWN OF 2015 CALENDAR YEAR DPP EXPENDITURES



SOURCE: DPP, 2015

funding for the tuition subsidies it provides to qualifying families. Providers may obtain additional funding from other sources, including state and federal subsidies and parent fees. Denver presently obtains roughly \$13 million per year from the sales tax increase, which is forecast to increase to \$19 million. Denver relies on parent fees and other public programs like Head Start to supplement the full cost of the program.

From the program’s start in 2007 to figures released for the 2015-16 school year, Denver taxpayers have provided a total of \$77 million to the Program (Robertson, 2015). \$66 million of this amount has been used for tuition, and \$9.7 million has been used to improve quality in public and private classrooms. By the 2015-16 school year, the Program had served more than 36,000 4-year-olds.

In 2015, DPP offered roughly \$13 million in tuition support to help approximately 54% of the city’s 4-year-olds (or roughly 5,000 children) attend a quality-rated preschool (DPP, 2015). Average support for a full day student is \$319 per month. The typical student comes from a family at or below 100% of the federal poverty level, attends a 4 out of 5 quality preschool for a full school day. Families fitting this profile receive \$477 in monthly tuition support.

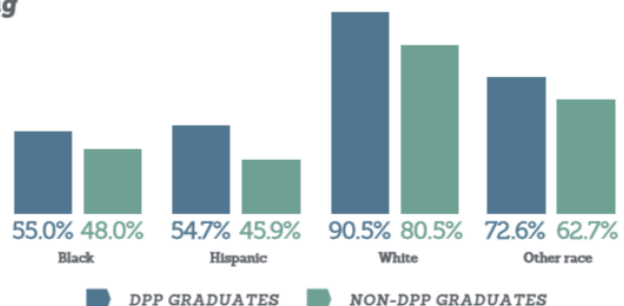
The expenditures per child in Denver make up only a portion of the full cost of providing programming. In FY 16, Denver provided anywhere from \$29 to \$680 per month per child to participating providers based on factors including family income, provider quality rating, and receipt of other government subsidies. Expenditures are prorated for half and extended day programming. Providers vary in terms of the number of months they offer preschool. Based on these factors, annual per child expenditures range from \$290 to \$6,800 per child for a 10-month program or \$348-\$8,160 for a 12-month program. During the 2014-15 school year, on average, Denver provided \$303 per month or \$3,030 for a child in a 10-month credit.

Results: Participating children show gains in the short and long term. A spring 2014 analysis of a sample of children who attended DPP (half in community centers and half in DPS) showed that students were “ready to learn” (Denver Preschool Program, 2015). The average standard score of surveyed students eclipsed the “ready to learn” category (defined as at or above than the national average) in literacy and math and in the “closing gap to readiness” category in vocabulary. Third grade standardized tests results on Colorado’s TCAP reveal that 64% of children in DPP scored as advanced or proficient in reading, compared to 56% of non-participants (Ibid).

FIGURE 2: DPP VS. NON-DPP READING SCORES IN THIRD GRADE BY RACE/ETHNICITY (2014)

Every Racial/Ethnic Category of DPP Students Outperformed non-DPP Students in 2014 third-grade reading

- More Hispanic children who participated in DPP (55 percent) were proficient readers than non-DPP students (46 percent).
- Fifty-five percent of Black third-graders participating in DPP reached proficiency compared to 48 percent of non-DPP students.
- The White third-graders who participated in DPP were 90.5 percent proficient compared to 80.5 percent of non-DPP students.



SOURCE: DPP, 2015

Barriers:

1. **Communication with families:** Denver advocates note several challenges facing the initiative's goal of enrolling all children in high quality programs. First, communication of key information does not always successfully reach families targeted by the program (Denver Preschool Program, 2015). Many local families assume they don't have access, despite the universal nature of the program. Additionally, some parents assume they have to pay beyond their means for preschool offered at private school sites and do not fully understand the nature of the subsidy program.
2. **Communication with the public:** Initial attempts to gain public support were not persuasive enough to pass the ballot (Denver Preschool Program, 2015). The first few attempts to raise sales tax through a ballot measure failed, with less than 30% of the vote. Analysts note that the failed measures may have been too broad and voters were unclear as to what they were voting for. These measures were worded as "birth to 5" initiatives, including child care, home visits and health components. The wording may have not been specific enough to convince voters of the need for public investment.

Keys to Success:

1. **Stakeholder engagement, leadership and public championing:** After two prior efforts failed, Denver successfully imposed its sales tax in 2006 to fund preschool expansion. After John Hickenlooper was elected mayor, he built a broad coalition to help draft a proposal for the program. Stakeholders were better engaged in the planning process for the successful ballot measures. Local leaders prioritized building coalitions that included districts, community child care and advocacy groups, and representatives from the business community. These coalitions helped to draft the plans for the programs, ensuring their commitment to its success.
2. **Public information campaigns:** Further, Denver ran an extensive public education campaign to promote the value of preschool that stakeholders credit with success. The campaign focused much more specifically on "preschool," rather than prior efforts which included broad language regarding "birth to 5" initiatives (Restivo, 2014). The 2006 measure passed with 50.6% of the vote. It was renewed and expanded in 2014 with 55% of the vote, demonstrating the increasing popularity of the program. Significantly, this renewal is good for 10 years (Robertson, 2015).

CHAPTER 6: FORSYTH COUNTY, NC: PHILANTHROPY

Summary Table: Project Impact Costs (2017-18)

Total Served	Costs per pupil	Total Funding	Results
249-285	\$8,328	\$2.4 million	N/A

The challenge: 24% of all residents in Winston-Salem live below the poverty line, more than all other urban areas in North Carolina (Project Impact, 2017). Almost 36% of children live below the poverty line, and 58% of children in Winston-Salem Forsyth County (WSFC) public schools qualify for free and reduced lunch. Students in WSFC schools have been struggling to meet the state’s academic standards for success. More than 40% of third graders in WSFC schools read below grade level (Project Impact, 2017). 12% of students entering WSFC schools enter school without English proficiency (Project Impact, 2017).

Access to quality pre-k is another challenge. There are presently 1,184 4-year-old children in Forsyth County enrolled in licensed, subsidized early learning and care programs funded by NC Pre-K, Head Start, Title I, CCDF, NCPC Family Child Care Scholarships and the local philanthropic effort called Project Impact (Family Services, 2016). However, there are approximately 1,200 financially disadvantaged children in Forsyth County who are eligible but not currently served for pre-K (Family Services, 2016). In 2016, the *Winston-Salem Journal* reported that the waiting list for Head Start and NC Pre-K programs exceeded 500 to 600 applicants in Forsyth County (Herron, 2016).

2016 Bond Referendum: Forsyth County Commissioners placed a \$350 million bond referendum on the 2016 ballot to provide funds to improve school facilities. Voters approved the bond referendum, with 73.46% voting yes (Drummond, 2016). \$3 million of this \$350 million is to be used to add six prekindergarten classrooms, and expand service to 108 children (Winston-Salem Forsyth County Schools, 2016). The location of these classrooms is yet to be determined.

Philanthropy: Presently, important private philanthropic and corporate interests support preschool expansion in WSFC schools to improve school readiness and academic outcomes through a local initiative called Project Impact. Project Impact’s goal is to provide additional funds to the WSFC schools to address low proficiency scores and literacy gaps.

Project Impact aims to help narrow the school readiness gap through pre-K expansion and extended early learning options (like summer “Kinder camps” and extended day/year programs), instructional support, professional

development for administrators, and coaches and reading support for high-poverty schools. Project Impact has two overarching, measurable goals: improve 3rd grade reading and math proficiency starting with pre-k, and close literacy gaps between Winston Salem/Forsyth County schools and other NC urban school districts.

Project Impact plans to spend \$45 million over six years, and will expand Pre-K programs starting with the 2016-17 school year (Family Services, 2016). Presently, Project Impact funds go to support 105 slots for 4-year-olds in 6 classrooms in Forsyth County schools.

The project requested a total of \$2,366,950 in funds for the 2017-18 school year (Project Impact funding request, 2017). Funds would cover the costs of the six initial classrooms that were funded in the first year of the program, and add an additional eight to ten classrooms for the 2017-18 school year. This would expand the total number of students served by Project Impact by an additional 144 to 180 slots, from 105 students served in the 2016-17 school year to between 249 to 285 served in 2017-18.

In total, Project Impact estimates that the cost per pupil of the 2017-18 expansion equals out to \$8,328 per pupil annually. Included below are budget estimates for the continuation

HOW TO GET TO UNIVERSAL?

In June 2014, a group of local early childhood professionals convened by local non-profit Family Services formed a Universal Pre-K Steering Committee to consider how Forsyth County could create a universal pre-k system. They identified several possible sources of funding, including federal and state funds, parent fees, philanthropic funds, a sales tax, property tax, grants, and social impact bonds. The Funding Work Group of the Committee outlined the following steps to calculate costs of universal expansion (Family Services, 2016):

One: Estimate the number of students to be served. Look at *live-birth data* and the *number of 4-year-old children* from NC Office of State Budget and Management. Also look at the number of *five-year-old children enrolled in public kindergarten* using data from public schools. Based on experience of other communities that implemented universal pre-k programs, assume approximately 65% of eligible children will enroll the first year, 80% the second year, and 90% by the third year.

Two: Calculate the cost of a universal pre-k system based on key primary factors. North Carolina calculates per pupil expenditures as salary and benefits for administrator and teachers, transportation, classroom materials, classroom services, lunches and other non-instructional support services. Primary factors to determine cost include capping class size at 18 per class, meeting staffing requirements of one teacher and one teacher's assistance per classroom, assuming a school year of 10 months and a school day of 6.5 to 8 hours per day. Further, factor in Division of Child Development and Early Education facility and cost standards for serving 4-year-old children.

Three: Identify available funding streams. Forsyth County identified three principal public streams and two private sources of funding. Public streams included NC Pre-K state funds, Head Start funds and Title I federal funds. Private funds included parent fees and corporate funding made available through Project Impact.

Assuming that the four-year-old age cohort of roughly 4,500 children enrolled at 90%, the Committee estimated 4,050 four-year-olds would enroll per year. Given that 1,184 four-year-olds were already enrolled through existing publicly funded pre-K programs, there remain 2,866 children to fund if universal pre-k were to be achieved.

At a cost of roughly \$8,400 per child, the additional costs for enrolling those children would be \$24,074,400 annually.

costs for the six initial classrooms, as well as the start-up costs for the additional eight to ten classrooms planned for the 2017-18 school year. Each new classroom costs an estimated \$166,000, according to their calculations (Project Impact funding request, 2017). The initial total cost of adding eight new classrooms would be \$1,328,000 and \$1,660,000 for ten classrooms.

Continuation Budget for six Project Impact classrooms for 2017-18 school year

Expense	Amount	Quantity	Total Cost
Salary- Teacher (incl. benefits)	\$ 75,000	@6	\$450,000
Salary- Teacher Assistant (incl. benefits)	\$ 40,000	@6	\$240,000
Sub Pay- Teacher	\$1,000	@6	\$6,000
Sub Pay- Teacher Assistant	\$ 700	@6	\$4,200
Required Snack & Meals	CEP- \$3,375	@2	\$6,750
Subtotal	\$120,075		
	TOTAL		\$706,950

(Source: Project Impact, 2017)

Table: Initial Costs for additional 8 -10 Project Impact classrooms for 2017-18 school year

Expense	Cost
Salary- Teacher (incl. benefits)	\$ 75,000
Salary- Teacher Assistant (incl. benefits)	\$ 40,000
Sub Pay- Teacher	\$1000
Sub Pay- Teacher Assistant	\$ 700
Supplies and Materials	\$870
Required Snack & Meals	CEP- \$3375
Furniture	18,000
Computer Equip under \$1000	\$500
Miscellaneous Contracted Services- NCDLCD Licensure	\$20,000
Computer Equipment over \$1000	\$6000
Subtotal	\$166,000

Total cost @ 8 classrooms	\$1,328,000
Total cost @ 10 classrooms	\$1,660,000

(Source: Project Impact, 2017)

Beverly Emory, superintendent of the Winston-Salem/Forsyth County Schools, said that the goal is to serve 600 additional low-income students, requiring 35 additional classes. The district currently doesn't have space for this many classes, even including the 6 additional classes approved by the 2016 bond referendum. Emory said that the district will partner with other providers to try to create enough space for these additional students by fall of 2017 (Herron, 2016).

One of the major focuses is intensive early intervention, including pre-k expansion, to target proficiency gaps among lower-performing schools. The Project has raised \$25 million of its \$45 million goal to date (Project Impact, 2017). The funds include commitments by local employers and their foundations, including BB&T, Flow Companies, Wake Forest Baptist Medical Center, Novant Health, Reynolds American Foundation, The Winston-Salem Foundation and some individual pledges.

In addition, Project Impact works closely with the local Universal Pre-K Steering Committee to support the sustainability of pre-k expansion in the community (Fulton, 2017). Universal Pre-K Steering Committee has identified potential avenues through which public funds could be used to provide universal pre-k in Forsyth County. Project Impact hopes that it will be able to provide evidence of the success of preschool to make the case for publically funded support. County Commissioners have passed a resolution of support, though there are no concrete plans for long term funding at this point (Fulton, 2017).

Keys to Success:

1. **High levels of philanthropic engagement:** Project Impact's Victoria Fulton (2017) said that Forsyth is home to a dedicated community of funders that helped to mobilize the community behind this effort. According to Andrew Gilchrist, chief financial officer and executive vice president of Reynolds American and an early leader of Project Impact, the business community wanted to support the school district's efforts to improve outcomes because schools are a "key component of economic development." Gilchrist and other business leaders supported pre-k expansion as a research-backed method to improve third grade reading proficiency, close achievement gaps and raise high school graduation rates (Herron, 2016). The project is meant to complement efforts from other community initiatives and major philanthropic donors, including the United Way, the Kate B. Reynolds Charitable Trust's Great Expectations project, the Forsyth Promise and the Winston-Salem Foundation's Peer Project. The Kate B. Reynolds Charitable Trust's Great Expectations initiative alone is investing between \$30 and \$40 million over 10 to 15 years to support early learning initiatives (Project Impact, 2017).

Barriers:

- 1. Funding streams:** One of the major challenges to financing pre-k expansion in Forsyth County is the complicated nature of the blended funding streams that support pre-k programming in North Carolina. Four separate organizations in Forsyth County manage funding streams that support pre-k, including the Forsyth County Department of Social Services, Family Services, Inc., Smart Start of Forsyth County, Inc. and Winston-Salem Forsyth County Schools. Different funding streams carry different eligibility requirements and restrictions. The total rate per child is based on reimbursements from multiple funding sources and parent co-pays. The complexity of the system raises administrative challenges and makes expansion efforts more complicated.
- 2. Long term public funding stream not yet identified:** While County Commissioners have pledged support for expanding access to preschool, local leaders have not identified a clear, long term plan for sustaining preschool expansion using public funds.

CHAPTER 7: WAKE COUNTY, NC: COUNTY BUDGET

Summary Table: Wake General Fund Allocation to Smart Start (2016-17)

Total served	Costs per pupil	Total funding	Results
54*	\$9,047	\$488,591	95% of students in Wake NC Pre-K meet or exceed benchmarks for Social-Emotional and Literacy expectations
<i>* In addition to roughly 1190 children already served in NC Pre-K through state Smart Start dollars</i>			

The Challenge: There are roughly 4,600 4-year-olds eligible for pre-K in Wake County. In FY 2014-2015, 25 percent (1,174) of eligible children were served through the state’s NC Pre-K public prekindergarten program and additional 36 percent (1,645) of eligible children were served through other publicly funded preschool programs like Title I, Child Care Subsidy and Head Start. 40 percent of children who were eligible were unserved (NC Early Childhood Foundation, 2016).

In 2015, Wake County Commissioners made a budget pledge to increase funding allocation to Wake County Smart Start to increase the number of slots available for children in local pre-k classrooms. Initially, County Manager Jim Hartmann submitted a budget that included funding for 4 new preschool classrooms. Commissioners doubled the request in their budget, with Commissioners Holmes and Sullivan providing key leadership in the effort. (WCSS, 2015). In total, County Commissioners voted to allocate \$325,728 to WCSS to partially fund eight new NC Pre-K classrooms in FY 15-16. (WCSS, 2015). 144 four-year-old were children served through the expansion. The County continued to allocate funds for pre-k in FY 16-17, increasing its budget allocation to Smart Start to \$488,592 (Dowdy, 2017). These funds support 3 classrooms of 18 children, including 4% allocation for program administration costs including recruitment, eligibility determination and payments.

Smart Start Executive Director Pam Dowdy (2017) said that county support helps Smart Start fund additional pre-k slots and maximize its state dollars for pre-k. If Wake Smart Start does not spend all the state funds that it is awarded, it must return that funding to the state at the end of the fiscal year. To avoid overspending, Smart Start has traditionally had to be conservative with its use of state funds and returns some money to the state at the end of the year. However, Smart Start is not required to return county funds that are unused by the end of the year; instead, they are able to roll this money over to support pre-K services in the next year. With the help of local funds, Smart Start now spends state funds first, and then spends county money (which it is able to roll over if it spends conservatively). In short, local funds not only provide more slots but also allow Smart Start the flexibility to capture and maximize all state funds it is awarded.

Barriers:

1. **Information:** Early on in the process, key stakeholders were not fully aware of the research and evidence regarding returns on investment for high quality early childhood services. Given that new elected officials

cycle in and out of key positions of influence, local leaders had to double down on education efforts to build champions in the system.

2. **Competition for funding:** County Manager Jim Hartmann noted that given scarce resources, there are significant trade-offs to consider in the budget allocation process (2017). Smart Start competes for limited funds with other organizations. Further, there are some in the community who do not see early childhood education as a top funding priority.
3. **Maintaining high quality:** North Carolina has some of the highest standards for quality in the country, which require significant resources on the part of providers. Because the state has not increased funding, Smart Start can't increase reimbursement rates for providers to help them meet quality standards (Dowdy, 2017). Further, budgetary restrictions make it difficult for smaller providers to keep high quality staff.

Keys to Success:

1. **Collaboration and partnerships that foster project champions:** Wake Smart Start and Wake County Public Schools partnered together over a decade ago to begin educating the public and community leaders about the importance of providing young children from economically disadvantaged families with high quality early learning experiences. (NC Early Childhood Foundation, 2016). Smart Start Executive Director Pam Dowdy noted that efforts to build champions and to educate key stakeholders about the impact of high quality education paid off (2017). Dowdy said that in the last four to five years, the conversation shifted from “should we invest in pre-k?” to “what do we have to do to invest in pre-k?” She noted that key stakeholders demonstrated high levels of interest in key positions, including the Chamber of Commerce, education advocacy community, the School Board, the Smart Start Board of Directors, and among County Commissioners. The election of County Manager Jim Hartmann (who became a major champion of efforts), plus an improved economy, created a fertile environment for change.
2. **Credibility and trust within the community:** In an interview, Hartmann emphasized that Smart Start had built high levels of credibility within the community, and that Dowdy was effectively able to demonstrate how the County's involvement would be a well-leveraged use of funds. Dowdy emphasized high levels of collaboration among Smart Start and advocates within the school system and private pre-k provider community, and a common language, mindset and set of values that enable collaboration to put children first.

CHAPTER 8: BOSTON, MA - MIXED FORMULA

Summary Table: Boston Public Schools’ KI Preschool Program costs (2015-16)

Total served	Cost per pupil	Total cost	Results
2800	\$12,450* <i>*Does not include additional funds from grants for teacher coaching etc.</i>	\$24 million	76% of BPS KI students meet benchmark entering kindergarten vs. 50% who did not attend BPS KI

Boston is widely recognized as a national leader of locally driven pre-k expansion efforts. According to a report by the Mayor’s Advisory Committee on Universal Pre-Kindergarten (2016), Boston has reached near universal access. 90% of Boston’s 6,000 four-year-olds are enrolled in pre-K, with 81% of enrolled four-year-olds receiving some public support to attend programming. Almost a third of these students live in households with incomes below the FPL, and an additional quarter come from households making 101-200% of the FPL. 49% are English Language Learners, and 17% are children with special needs.

Providers: Boston Public Schools provides pre-kindergarten programming for three and four year-olds. Three year-olds attend Kindergarten 0, or “K0,” and four year-olds attend Kindergarten 1, or “K1.” Boston has expanded access from 700 seats in 2005 to 3,100 seats in 2015 in its K0 and K1 programs (City of Boston, 2016).

The K1 program was phased in beginning in 2005 (City of Boston, 2016). The city of Boston initially provided 700 free preschool slots, mostly in inclusion classrooms. By 2010, 85% of elementary schools had at least one preschool classroom, with more than 2,000 slots available for four-year-old children. As of 2015, 95% of elementary schools had a preschool classroom. There are presently 2,800 slots available.

Students and families face a diverse landscape of options, with many different providers and models of varying quality. Of the roughly 6,000 four-year-olds in Boston Pre-K programs, approximately 43% were enrolled in programming through Boston Public Schools, 15% in Center-Based programs, 13% in Head Start, 9% in parochial programs, 5% in charter programs, 5% in family child care programs and an additional 10% unknown (Mayor’s Advisory Committee on Universal Pre-Kindergarten, 2016).

While Boston has achieved near universal access to Pre-K, Boston leaders are now focused on ensuring equitable access to high quality programs for all four-year-olds by 2020.

Quality: Evaluators note high quality and consistent improvement among some providers, most notably Boston Public Schools. Weiland and Yoshikawa (2013) found that Boston Public Schools’ K1 program had the largest effect on language and math outcomes of any public program in the country. They found that programming closed the school readiness gap between poor and non-poor children in math, and narrowed or eliminated the school

readiness gap between White and Latino or Black students in reading and math. 76% of students who participated in BPS's K1 pre-kindergarten program scored at or above benchmark upon entering Kindergarten, compared to 50% who did not participate (City of Boston, 2016). Broken down by race, 80% of African American students entered Kindergarten at benchmark if they participated in the K1 program, compared to 57% who did not, and 69% of participating Hispanic students entered at benchmark compared to 35% who did not (City of Boston, 2016). Unsurprisingly, the K1 program is at full capacity, with a wait-list of over 800 children.

However, evaluators find that quality is lacking in some community-based centers and family childcare providers, which do not have access to critical financial and professional development/training resources. With the exception of Boston Public Schools, these providers operate largely independent of one another, so efforts to improve quality broadly under the current mixed formula face significant challenges.

Costs: BPS K1 is one of the larger and more expensive preschool expansion initiatives at the local level in the country. K1 requires that teachers in preschool classrooms have a bachelor's degree, and compensates teachers at the same pay scale as K-12 teachers. Further, funding covers the full cost of the program and there are no associated family fees. As such, the cost for the program is quite high.

In total, BPS K1 preschool cost about \$24 million annually in 2015 (Weinberg et al., 2016). There are approximately 2,800 public-school-based slots available in Boston Public Schools classrooms (Mongeau, 2016). The district spends approximately \$12,450 per pre-K student each year, which helps cover the costs for an assistant teacher in every classroom, materials, and supplies (Mongeau, 2016). Other costs, including one-on-one teacher coaching, improving and customizing the curriculum, and monitoring compliance with accreditation standards, comes from other funding streams, including major philanthropic support from the Barr Foundation and federal grant money.

Taking into account other providers, annual per student costs vary from roughly \$10,000 to \$16,000 because of significant cost differences among providers. Some of the major drivers of this variation include teacher salaries (which vary significantly between BPS and community-based programs), accreditation costs among providers that acquire and sustain National Association for the Education of Young Children accreditation, high-quality curriculum costs, and ongoing teacher coaching and professional development (Mayor's Advisory Committee, 2016). Additional factors affecting costs include program duration (6.5 hours per day, 180 days per year in BPS vs. up to 10 hours per day in year round programs in community centers), facilities and resources (Ibid).

Funding: Boston uses a combination of district and city funds as its primary funding mechanism for K1 slots in Boston Public Schools, in addition to Title I funds, grant money, and philanthropic funds (Weinberg et al., 2016). The City of Boston and BPS also partner with many community-based organizations that provide services. Boston recently received a \$4 million Preschool Expansion grant from the U.S. Department of Education to provide full-day programming in community-based centers to four year-olds annually for four years (City of Boston, 2016).

The grant was used to fund an additional 300 seats in community-based preschools for the 2016-17 school year (Weinberg et al., 2016).

In order to help the City of Boston ensure that all programs meet a consistent and high level of quality, the Barr Foundation recently awarded a \$1.4 million grant to the United Way of Massachusetts, Bay, Inc. Using these funds, Boston will conduct analyses of supply and demand for existing seats, quality assessments by program type and a cost assessment by program type. They will use this data to inform the design of implementation plan to “scale universal quality for pre-K across the City” (Barr Foundation, 2017).

Boston Public Schools Superintendent Tommy Chang argued that present funding, including local funds, federal grants and private grants, is insufficient. He argued that state and federal support are needed to offer universal preschool at the quality level needed to make a lasting impact. In support of these goals, Boston Mayor Martin Walsh committed \$3.1 million for public preschool in the 2016-17 fiscal year, despite a budget deficit.

Barriers:

1. **Attracting affluent families:** The highest-income residents in Boston tend not to enroll their children in the city’s public schools. As a result, they do not bring their wealth and political muscle to help expand the program to serve all children (Mongeau, 2016)
2. **Minimal state support:** Boston has minimal state support, which only provides free preschool for 7 percent (or 6,500) of the state’s nearly 92,000 four-year-olds. The State’s Republican Governor Charlie Baker has not prioritized preschool, though did authorize an additional increase in funding to provide 2,000 additional slots for children in the 2016-2017 school year.
3. **Raising quality for all students:** While BPS pre-K is very high quality, many children across the city attend programming that is “subpar.” The city does not presently have the funding to improve the quality of programs for all children. They are presently looking at strategies that include a soda tax or redirecting surplus funds from two state Convention Center Fund accounts generated by tourism tax revenue in Boston. However, these ideas face hurdles and the surplus idea would require changes to state law (Vaznis, 2017).

Keys to Success:

1. **High quality that delivers and a pro-education environment:** Boston’s preschool program exceeds the high quality standards established by the National Institute for Early Education Research. Further, independent studies of the BPS pre-K program have demonstrated some of the best results of any publicly funded program in the country. Students attend programs taught by degreed teachers who are

compensated at the same level as K-12 teachers, in classrooms with small student to teacher ratios and learn with the guidance of a high- quality, rigorous curriculum. Further, public education is very strong in Boston generally. Students in Boston Public Schools are among the highest performing urban students in a state ranked as one of the highest performing in the nation, based on reading and math tests scores on the National Assessment of Educational Progress (NAEP). Success has been credited to well-educated, well-paid teachers; strong unions; a population willing to pay higher taxes to fund education; and relatively small class sizes (Mongeau, 2016).

CHAPTER 9: CONCLUSIONS WITH IMPLICATIONS FOR FUNDING STRATEGIES

SUSTAINABLE, SUCCESSFUL EXPANSIONS REQUIRE SIGNIFICANT PUBLIC INVESTMENT:

COUNTY INVESTMENT OF TAX DOLLARS IS NEEDED FOR PRE-K EXPANSION

Present funding streams support approximately 800 of the 2000 Durham four year-olds from families with incomes below 200% of the FPL. This leaves an unmet need of approximately 1,200 to 1,300 low-income four year-olds that require services.

Using state NC Pre-K and Smart Start funds, Durham currently provides roughly \$9500 per year to support children in high quality NC Pre-K programs (Benson, 2017). If current expenditure rates were used to calculate the cost of expansion, Durham would spend roughly \$12.350,000 annually to fully subsidize the cost of services per child.

However, some experts believe it costs an estimated \$12,000 to provide high quality pre-k due to costs such as higher teacher pay (which may be required to attract teachers with high degrees), accreditation costs, and ongoing professional development. For example, Boston's high quality program costs the city and district roughly \$12,450 per pupil annually, not including additional funds from philanthropy and grants that support evaluation and other costs. If Durham were to prioritize raising the quality of services as part of its expansion, the annual cost to Durham for fully subsidizing all children in need would run closer to \$15,600,000 annually. Neither of these estimates include start-up costs, evaluation costs, capital costs that may be required if providers lack brick and mortar capacity, or additional administrative costs, which may be substantial. As such, local experts have put the cost of expansion closer to \$20 million per year (Cummings, 2017).

Durham has exhausted funds from federal and state sources, and does not presently have the budget capacity to support the cost of fully subsidizing services. As such, a county-wide tax increase will be necessary to raise funds for pre-k expansion. A sales tax increase would require approval from the General Assembly, and then local voter approval through the ballot. It is not safe to assume that Durham can raise funds through this mechanism.

Durham could raise property taxes to fund pre-k expansion. Presently, Durham County has a local property tax rate of an additional 10 cents. This brings in roughly \$31 million annually, based on \$3.1 million per penny on the property tax rate (Cummings, 2017). Raising the property tax rate by 7 to 10 cents over time would provide enough funding for a high quality expansion. Further analysis of the impact of increased property taxes is needed to calculate more precise estimates of expected revenue of a tax of this magnitude.

PHILANTHROPY CAN BE USED TO HELP WITH CERTAIN COSTS, BUT IS NOT A GOOD SOURCE OF SUSTAINED ANNUAL FUNDING.

Ultimately, Durham will need to identify a sustainable source of public funding to maintain the costs of pre-k expansion. Philanthropic funds can be helpful for short term or one-time expenditures, but ongoing costs will require sustainable revenue streams that could combine local, state and federal sources (Mayor’s Advisory Committee, 2016). As mentioned, Durham will need to raise significant tax revenue to support expansion as present federal and state resources are insufficient to meet the local need.

At most, philanthropy could be expected to provide funding for a multi-year pilot and evaluation of impact. For example, Project Impact, the major philanthropic effort in Winston-Salem Forsyth County, will provide up to \$45 million dollars to fund a 6-year pre-k expansion and evaluation. Funds are being used to cover start-up costs per classroom, as well as ongoing costs, for the full 6 years of expansion. If the program is successful, public investment will be required to maintain the program. County Commissioners support the initiative and vision for long term funding, but have not clearly identified what sources of funds would continue the expansion.

Project Impact outlined the following start-up costs per classroom (in addition to regularly occurring costs, like teacher salaries and student snacks). Each new classroom requires roughly \$45,370 for start-up costs (in addition to roughly \$120,000 in annual operating expenses). If classrooms are added at roughly 10 per year, start-up costs run at about \$453,700 annually. Further information is available in the tables below:

Start Up Costs Per Classroom:

Expense	Cost
Supplies and Materials	\$870
Furniture	18,000
Computer Equip under \$1000	\$500
Miscellaneous Contracted Services- NCD CD Licensure	\$20,000
Computer Equipment over \$1000	\$6000
Subtotal	\$45,370
Total cost @ 10 classrooms	\$453,700

Total Expenses for Each New Project Impact Classroom, including Start Up Costs

Expense	Cost
Salary- Teacher (incl. benefits)	\$ 75,000
Salary- Teacher Assistant (incl. benefits)	\$ 40,000
Sub Pay- Teacher	\$1000
Sub Pay- Teacher Assistant	\$ 700
Supplies and Materials	\$870
Required Snack & Meals	CEP- \$3375
Furniture	18,000
Computer Equip under \$1000	\$500
Miscellaneous Contracted Services- NCDCCD Licensure	\$20,000
Computer Equipment over \$1000	\$6000
Subtotal	\$166,000
Total cost @ 8 classrooms	\$1,328,000
Total cost @ 10 classrooms	\$1,660,000

Durham’s annual expenses will vary from Project Impact’s. To start, Durham’s current per pupil expenditures for NC Pre-K are presently closer to \$9,500, compared to Project Impact’s \$8,328. Additionally, Project Impact is presently housed in public school classrooms. If Durham lacks the physical capacity to house more classrooms among public and private providers, capital start-up costs may be considerable.

Durham could also seek philanthropic support to help cover program evaluation costs. In Boston, the Barr Foundation recently provided a \$1.4 million grant to the United Way of Massachusetts Bay, Inc. to help the City of Boston figure out how to achieve universal, high quality pre-k (Barr Foundation, 2016). The funds will be used to complete a “supply and demand analysis of existing seats, a quality assessment by program type, and a cost assessment by program type” (Ibid). The data base and analysis will be used to help design an implementation plan to scale universal quality across the city.

PAY FOR SUCCESS FINANCING IS A SHORT TERM SOLUTION THAT CARRIES RISKS

Durham may wish to pursue Pay for Success (or social impact bonds) to help finance its preschool expansion program. However, it is important to consider the risks of this strategy in addition to the benefits. Pay for Success financing from Goldman Sachs and the J.B. Pritzker foundation helped Salt Lake County expand preschool access for low-income children. Further, according to Julie Ramos of the United Way, PFS helped local leaders demonstrate that public investments to preschool are impactful and economically viable, and led to legislation to increase public funding for programs to expand high quality preschool grants to serve more children in the State.

However, despite positive student outcomes and ongoing interest in the Utah legislature, Goldman Sachs will most likely not renew its contract. Ramos (2017) said that they are more likely to want to help other communities start programs, rather than continue to work as the primary investor in Salt Lake.

Additionally, following the first round of payments, the New York Times published an article that was highly critical of the program's methodology. The article emphasized that the PPVT assessment is not a widely accepted indicator of the likelihood that a child will need special education services. Because of this, the article noted that the program's reported results were likely inflated. Goldman Sachs took a heavy hit from the article, and media criticism created a challenge for everyone involved. The United Way stands by the fact that they had enough data to establish the necessary correlation. Still, after the state made its second round of payments (of \$290,000), the United Way did not publicize its success with a press release as it had the first year.

Durham may wish to pursue PFS financing in the short term to help cover costs of expansion. However, local policymakers should identify what public funding mechanism will ultimately sustain the expansion as evidence suggests that PFS contracts are limited in time and not sustainable. Further, Durham should be prepared to handle the potential for major scrutiny by the media and public by ensuring that program design takes into account best practices for selecting success metrics. The Salt Lake case demonstrates that the press and public generally are more likely to highly scrutinize corporate involvement with preschool financing. This scrutiny can detract from political will and hinder long term efforts, so careful planning is required to ensure the success of this strategy.

ADDITIONAL FUNDS NEED TO BE ALLOCATED TO BUILD BROAD PUBLIC SUPPORT

A preschool expansion will be expensive, and returns to investment will take time. Given the high costs of expansion, it is important that Durham invest funds in a public education campaign to help build the case for additional tax revenue.

The Denver case is a good example of how public awareness campaigns can successfully build voter support. Denver tried twice and failed to establish a universal preschool program through an education sales tax. When

Mayor John Hickenlooper was elected, Denver invested funds in an extensive television campaign to educate the public and make the case for preschool (Weinberg et al., 2016). The November 2006 ballot measure passed by fewer than 2,000 votes. In 2014, when the city asked voters to increase the sales tax to 0.15 percent and extend the program, the city emphasized improved third grade tests scores of students attending the program. This time, voters approved the measure with 55 percent of the vote.

Polling can help determine the needs and type of campaign required. In Denver, voters reported being “unclear as to what they were voting for” in the first two initiatives (Weinberg et. Al., 2016). These were broadly worded as “birth to age 5” initiatives that included child care, home visiting, and health components. Polling revealed the nature of voter confusion, and enabled the city to draft a more targeted ballot measure that ultimately was successful.

In addition to education, Hickenlooper focused on building partnerships with key stakeholders, including districts, community child care and advocacy groups, and representatives from the business community. All cases included in this report had a local champion that helped build support among key stakeholders.

HIGH QUALITY PROGRAMS ARE NEEDED TO PRODUCE RESULTS AND MERIT SIGNIFICANT PUBLIC INVESTMENT

NOT ALL PRE-K PROGRAMS ARE EFFECTIVE OR HIGH QUALITY ENOUGH TO PRODUCE RESULTS; IT IS IMPORTANT TO ALLOCATE FUNDS FOR PROGRAM EVALUATION.

In order to gain ongoing investor and public support, Durham must be able to demonstrate the impact of high quality pre-k. Evaluation will increase costs, but can help Durham ensure that its investments are ensuring high quality and creating results for children. As such, it is important to establish a rigorous evaluation plan with clear metrics for success.

For example, Salt Lake’s Granite School District had been collecting data and evaluating student outcomes longitudinally for about 10 years before they pursued Pay for Success financing. The rich data provided by the longitudinal study made it easier for approach Goldman Sachs and J.B. Pritzker to seek investment (Ramos, 2017). The Director of GSD’s preschool programs had established a correlation between PPVT assessment scores and likelihood of needing special education services. United Way and GSD were able to work with investors based on data to establish “special education avoidance” as an attractive success metric for investors.

Ramos (2017) said that investors require solid evidence to be willing to take a financial risk, and require an independent third party evaluator (in SLC’s case, Utah State University). Further, you need a clear proxy indicator of success that can easily be tied to some financial outcome and measured relatively well in the short term.

Durham's present situation yields itself well to a randomized controlled trial, in which eligible students are randomly assigned to attend programming through a lottery as the program is rolled out to generate a reliable estimate of the program's impact on a range of student outcomes. Such research may appeal well to education experts at local universities, like Duke and the University of North Carolina. As such, it may be possible to work with interested researchers to procure grant funds to cover the cost of program evaluation.

IT TAKES TIME TO INCREASE CAPACITY AND MAINTAIN HIGH QUALITY PROGRAMMING.

Expansion efforts should be rolled out slowly, given the high cost of the program and the need to create more physical capacity to serve the total number of children required. A roll out of roughly 10 classrooms per year would give providers time to respond and build capacity of the system. Given an unmet need of 1300 students, and a maximum state mandated NC Pre-K class size of 18 children, Durham will need to build at least 73 classrooms to accommodate the need. Factoring in that the average NC Pre-K class size is actually 16 students, 82 classrooms would be likely be required at minimum to meet all unmet student need (Peisner-Feinberg et al, 2014). A slow roll out would also allow Durham to phase in tax increases to taxpayers. Further, the County can identify "stopping points" if demand caps out, minimizing waste in the system.

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