LESSONS FROM THE FIELD:
Profiles of Quality Early Childhood Education Programs and Implications for Connecticut

2017
For more than a decade, the Connecticut Coalition for Achievement Now (ConnCAN) has led a movement to improve educational outcomes for Connecticut’s kids and close our state’s achievement gap. We are committed to promoting student-focused policies that ensure all students have equal opportunity and access to an excellent education. Throughout our advocacy, we have seen what research makes clear: too many children, especially economically disadvantaged children, start their schooling lacking key skills to be successful. If we are serious about closing our worst-in-the-nation achievement gap and giving all Connecticut’s children the excellent education they need and deserve, our state leaders must couple the necessary improvements in our K-12 public schools with policies and investments that ensure that all Connecticut children, especially our traditionally high-needs students, have access to high-quality early childhood education.

For this reason, in 2015, ConnCAN released *Early Childhood Education in Connecticut*, an analysis of the current state of young children in Connecticut and the early childhood education system that serves them. The report recommends short- and long-term changes designed to improve Connecticut’s early childhood system and policies. As Connecticut looks at how it can make further progress on this front to define and support high-quality early childhood programs, the state has an opportunity to learn from best practices and effective models from outside of Connecticut.

To drive that work, ConnCAN developed *Lessons from the Field: Profiles of Quality Early Childhood Education Programs and Implications for Connecticut*, a set of case studies of high-performing programs that are currently operating in other states.

**ABOUT LESSONS FROM THE FIELD**

This report profiles five early childhood providers: Acelero Learning, AppleTree Early Learning, Boston Public Schools pre-k, CAP Tulsa, and City Garden Montessori. These programs were selected because they have demonstrated, quality evidence of effectiveness showing that children who are enrolled in the programs make meaningful learning gains and enter school better prepared to succeed.

Each profile includes three sections: 1) evidence of effectiveness, 2) program design, and 3) areas for growth. The evidence of effectiveness section focuses specifically on the program’s impact on children’s learning outcomes as demonstrated through independent evaluations. The program design section details the specific programmatic structure and practice aspects of the program, including funding, curriculum, family engagement, and data-driven continuous improvement. Finally, each profile highlights challenge areas in which the provider can continue to grow. While each program has demonstrated strong evidence of effectiveness, each program also still has room for improvement.

Information about these programs comes from public, online sources and interviews with program staff. All program directors had the opportunity to review a near-final draft of the profile, and to write a letter to offer any additional information.
All programs except for Boston Public Schools provided feedback on their program’s profile; AppleTree Early Learning and City Garden Montessori also submitted commentary letters, which can be found at the end of this report.

The programs profiled here represent diverse student populations, delivery systems, funding environments, and program lengths. The similarities and differences in their approaches offer lessons for Connecticut early childhood programs and policymakers seeking to improve early learning for Connecticut children. At the end of this report, we summarize the key themes from these five programs that are particularly relevant for Connecticut early childhood providers. We also make policy recommendations that would allow Connecticut to leverage the lessons learned from these high-performing providers.

WHY OUT-OF-STATE PROGRAMS?

In our previous report, we profiled Connecticut providers that offer promising programs. For this report, we scanned the state landscape for programs with demonstrated evidence of effectiveness and were unable to identify any Connecticut programs with independent evaluations of their impact. Importantly, Connecticut currently lacks a strategy for measuring the quality of providers and differentiating between higher- and lower-performing programs. Because of this gap in evidence, we chose to focus these case studies on national providers with strong, independent evidence of quality and impact. We hope that these examples will provide guidance and insight to practitioners, policymakers, and researchers and spur Connecticut to work towards better supporting the development of effective programs, identifying program impact and making that information available to families seeking to choose quality programs for their children.

ABOUT THE PROGRAMS

The programs profiled here share two key features: research shows that they consistently improve young children’s learning outcomes, and they achieved those results with primarily low-income student populations. Otherwise, these programs look very different. Their student populations come from a diversity of racial and ethnic backgrounds, they receive funding from a variety of funding streams, and they represent a range of different provider types (see Table 1 on the following page).

These features make them ideal models for Connecticut early childhood providers. We know from past research that low-income children are more likely to enter kindergarten academically and developmentally behind their higher-income peers. But low-income children are no longer concentrated in racially homogenous urban centers. Instead, Black/African American and Hispanic/Latino low-income families are increasingly moving into Connecticut’s traditionally White, higher-income suburbs. As a result, early childhood providers now must serve more socioeconomically, racially, and ethnically diverse communities than they have before – and the programs profiled in this report can offer guidance to do so effectively. The variety of provider types and funding streams of these programs also make them fitting models for Connecticut, since the state’s early childhood ecosystem currently funds several different types of providers from a variety of funding sources.

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**Table 1**

**Key Features of Model Programs**

<table>
<thead>
<tr>
<th>Program</th>
<th>Student Demographics</th>
<th>Provider Type</th>
<th>Funding Streams</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acelero Learning</td>
<td>15% White 34% Black/African American 46% Hispanic/Latino</td>
<td>Community-based provider</td>
<td>Early Head Start Head Start State-funded pre-K Child and Adult Care Food Program (CACFP) Private sources</td>
</tr>
<tr>
<td>Apple Tree Early Learning</td>
<td>16% White 81% Black/African American &lt;3% Hispanic/Latino</td>
<td>Charter school</td>
<td>Head Start District per-pupil funding Childcare and tuition (for aftercare only)</td>
</tr>
<tr>
<td>Boston Public Schools</td>
<td>14% White 32% Black/African American 41% Hispanic/Latino</td>
<td>Traditional public school</td>
<td>District per-pupil funding</td>
</tr>
<tr>
<td>CAP Tulsa</td>
<td>14% White 30% Black/African American 40% Hispanic/Latino</td>
<td>Community-based provider</td>
<td>Early Head Start Head Start State-funded pre-K CACFP Childcare Grants</td>
</tr>
<tr>
<td>City Garden Montessori</td>
<td>50% White 42% Black/African American 8% Hispanic/Latino</td>
<td>Charter school</td>
<td>Tuition Private sources Charter school funding (for K-8 only)</td>
</tr>
</tbody>
</table>
Children under 5:
- 54% White
- 12% Black/African American
- 25% Hispanic/Latino

Permitted Providers:
- Traditional public schools
- Charter schools
- Community-based providers
- Magnet schools

Early Childhood Funding Streams Include:
- Even Start
- Head Start
- Smart Start
- Child Day Care centers
- Early Intervention
- Community/Family Support Services
- School Readiness
- Care 4 Kids
- Charter school funding
- Magnet school funding

Acelero Learning is a Head Start operator founded in 2001. They are the second-largest private Head Start grantee in the country, serving 5,000 children in 40 facilities across New Jersey, Wisconsin, Pennsylvania, and Nevada. Acelero Learning offers full- and part-day Head Start programming to primarily Black/African American and Hispanic/Latino students. Their organizational mission is to close the achievement gap for Head Start children by providing high-quality early childhood education and intensive family engagement services. Acelero Learning credits their high-quality early learning program to their investments in curriculum, professional development, and teacher support.

EVIDENCE OF EFFECTIVENESS

Research shows that Acelero Learning is effectively narrowing the achievement gap. Between 2010 and 2014, the National Institute for Early Education Research (NIEER) at Rutgers University assessed the math and literacy skills of Acelero Learning students. The researchers found that each year, Acelero Learning students demonstrated greater-than-average gains in both subjects, and in 2014, the average Acelero Learning student score was more than twice as high as the average for Head Start programs. Overall, NIEER found that children who attended an Acelero Learning Head Start program for two years outscored the Head Start average by nearly threelfold. These results are among the largest gains for Head Start programs in the country. Despite Acelero Learning’s strengths, the program still struggles with fully closing the achievement gap. This evidence suggests that Acelero Learning programs produce better outcomes than the average Head Start program, but the program’s results are not enough to fully close the achievement gap by the time students enter kindergarten.

PROGRAM DESIGN

Program Funding

As a Head Start grantee, Acelero Learning receives the bulk of its revenue from the federal Head Start program, which provides grants to local organizations to provide comprehensive early learning and child development services for children in poverty and their families. Nationally, the Head Start program served more than 900,000 children in the 2015-16 school year, and spends an average of $8,500 per child across all Head Start programs.
Acelero Learning operates both Early Head Start programs, which serve infants, toddlers, and their parents, and Head Start programs, which serve 3- and 4-year-old preschoolers. Where possible, Acelero Learning also accesses state pre-k, childcare subsidies, and other public funds to supplement what it receives from Head Start. These funds allow Acelero Learning to offer full school-day programs, increase teacher compensation, or make other investments in local program capacity.

Because Acelero Learning operates across multiple states with different preschool programs and funding levels, its funding varies considerably across locations, and Acelero Learning designed a model that can work with both higher and lower levels of funding. Acelero Learning strives to find solutions that are scalable for all Head Start programs, so it does not raise philanthropic dollars to supplement per-child government funding.

Curriculum

In 2014, Acelero Learning revamped their existing curriculum to strengthen the quality of their program. The new curriculum, Ready to Shine, is a comprehensive set of tools and supports for teachers, organized into 12 themes. It has a developmental scope and sequence and provides teachers with intentional learning activities to help children progress. With Ready to Shine, teachers differentiate instruction and guide children through daily, small-group activities. Most Acelero Learning classrooms use Ready to Shine; those that do not are located in school districts, which use Creative Curriculum and supplement with Ready to Shine activities.

Ready to Shine’s companion materials include in-class activities, unit maps, week-by-week lesson guides that are aligned with school readiness goals and assessment objectives, and resources to guide curriculum collaboration meetings. A group of in-house specialists created the initial version of Ready to Shine, and have revised it continually based on teacher and leadership feedback.

Staffing & Professional Development

Ongoing coaching is the backbone of Acelero Learning’s professional development structure. Acelero Learning expects its teachers to participate in both self-reflective and guided coaching. Unlike most Head Start programs, where Center Directors are largely administrators, Center Directors at Acelero Learning are instructional and professional development leaders, responsible for each teacher’s guided coaching. Center Directors coach teachers using the Teacher Success Rubric (TSR), which was developed in-house and clearly articulates the expectations for being a successful teacher and allows the Center Director to assess the teacher’s skills on a continuum from “beginning” to “mastering.” The Center Director then identifies areas for improvement and the TSR provides teachers with a clear developmental path to achieve mastery in their areas of need. The coaching structure is cyclical: Center Directors work with teachers to set focused goals every month, then collect data on the teacher via observation, analyze the data, and debrief with the teacher. The debrief sessions start with the teacher reflecting on their performance during the observation, then the Center Director will share data, the teacher responds, and they set next steps together.

Because Acelero Learning’s resources vary across states, so too do their human capital investments. About 57 percent of Acelero Learning’s lead teachers have a bachelor's degree, and they are not consistently able to pay them the same salaries as K-12 teachers. Acelero Learning has managed to successfully — and meaningfully — differentiate professional development for teachers across degree levels, however, so that their teachers consistently produce positive outcomes for children.

Family Engagement

Family engagement is another key tenet of Acelero Learning’s success. Acelero Learning believes that engaging families is crucial to achieving their mission of closing the achievement gap. They focus specifically on empowering parents to support their children’s learning and advocate for their children within the public education system.

Their family engagement work has three goals: encourage high-quality parent/child interactions, provide individualized support to families according to their self-identified needs and aspirations, and build social capital among families.

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Unlike some programs that have diffuse or unclear goals for parent engagement, Acelero Learning’s approach deliberately seeks to move results on a set of parent behaviors shown to impact children’s development and school readiness, including reading to children at home and establishing consistent routines. To support this type of work, Acelero Learning created *Shine On Families*, a family curriculum that is designed to extend classroom learning into the home. *Shine On Families* provides parents with concrete activities they can do with their children that are aligned to *Ready to Shine* and thus the activities children are doing in class. Acelero Learning also emphasizes building the capacity of their staff to drive family engagement: they invest in several family engagement roles, including Family Advocates, Specialized Advocates, and Family Service Coordinators. Like lead teachers, these staff also have self-reflective and guided assessments, and success rubrics, as part of their professional development and can participate in Professional Learning Communities.

**Data-Driven Instruction**

Acelero Learning uses child assessment and family outcome data to drive on-going continuous improvement of their early learning content and parent engagement strategies as part of their efforts to close the achievement gap. The child assessment system is observation-based, using direct assessment and curriculum-embedded activities to determine if children are “school ready.” In most of its classrooms, Acelero Learning’s assessment tool is the *Early Learning Scale*. In the remaining classrooms, the assessments are streamlined versions of *Teaching Strategies GOLD*, a commonly available and widely used product. Acelero Learning also developed resources to support teachers with assessment implementation, such as Acelero Learning’s Focused Assessments, which embed assessments into curriculum activities, and Professional Learning Communities for teachers to discuss assessment findings and planning and reflection tools.

To track and analyze program data, Acelero Learning developed *Shine Insight*, an electronic information management system.\(^5\) Shine Insight “pushes” high-priority data to staff, enabling them to quickly respond to specific program, family, or child needs. Program sites regularly track a number of child and family indicators, such as: reading and math readiness, attendance, effectiveness of coaching, families’ areas of strength and need for support, and unaddressed medical needs. These data are used to produce classroom-level scorecards (showing children’s progress each quarter), family engagement report cards (to give parents individualized feedback to support learning at home), and site-level reports that monitor key implementation and quality metrics. Program sites also complete comprehensive self-assessments, which drive site-level continuous improvement efforts and inform the supports and technical assistance that Acelero Learning provides.

Acelero Learning’s data analysis work also includes research and evaluation. The organization partnered with a number of research institutions, including New York University, Temple University, Stanford University, Harvard University, and University of Chicago to assess the impact of their early learning and family services models.

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GROWTH OPPORTUNITIES

Acelero Learning offers a strong, effective preschool program and has successfully built an iterative, research-based model that continues to build on its prior successes. Like other programs, however, Acelero Learning faces challenges with teacher turnover, in part because there is wide variation in the public resources that they can access across the different states they work in, which makes it more difficult to pay competitive salaries in certain places.

Further, Acelero Learning has realized that they alone cannot grow to meet the needs of all children who need better Head Start programming, so they have developed partnerships through their sister organization, Shine Early Learning, to improve the quality of other providers. This work is promising, but it has proven challenging to drive changes in culture and practice in established institutions, and doing so has required Acelero Learning to develop new tools and processes.

ADDITIONAL RESOURCES

- Acelero Learning’s main website
- Acelero Learning’s annual reports, 2012 through 2015
- Overview of Shine Early Learning
- Overview of Shine Insight, Acelero Learning’s data system
- Hechinger Report: A For-Profit Approach to Head Start
- New Profit: Profile, Acelero Learning
- Reinvestment Fund: Profile, Acelero Learning

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6 Shine Early Learning, Home: www.shineearly.com
AppleTree Early Learning is a pre-k-only charter school with six campuses across Washington, D.C. The school opened in 2007 with the mission of closing the opportunity gap before children enter kindergarten. AppleTree Early Learning’s sister organization, AppleTree Institute, operates four additional campuses. Together, these organizations offer full-day preschool to more than 1,200 three- and four-year-olds, providing the social, emotional, and cognitive foundations that enable them to succeed in school. AppleTree primarily serves high-needs students: The vast majority — more than 80 percent — of AppleTree’s students are eligible for free or reduced-priced lunch, and ten percent are English Language Learners.

**EVIDENCE OF EFFECTIVENESS**

AppleTree and its instructional model, *Every Child Ready* (ECR), have been nationally recognized for effectiveness. An independent evaluation found that students make significant learning gains and that the program is closing the achievement gap at school entry for high-need students. AppleTree graduates have better language, vocabulary, and literacy skills than comparable Washington D.C. students who did not attend AppleTree. And the results have staying power: After two years of ECR, AppleTree alumni score 20 points higher on oral reading fluency tests in 1st grade, and 70 percent higher on oral reading assessments in 2nd grade than their non-AppleTree counterparts.

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Note: AppleTree Early Learning Public Charter School and the AppleTree Institute for Education Innovation are two separate, but related, organizations. AppleTree Early Learning is a local education agency that serves preschoolers, while AppleTree Institute serves as a charter management organization that serves preschoolers through partner organizations. In other words, AppleTree Institute works with other charter schools in the District to deliver the Every Child Ready model on their campuses. Both AppleTree Early Learning and AppleTree Institute use Every Child Ready; from a content perspective, they are aligned in every way. Throughout this profile, “AppleTree” refers to both organizations.

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Program Funding

AppleTree exists in a policy context that is unique for an early childhood program: it is a charter school located in a city that funds preschool for all 3- and 4-year-olds on a per-pupil basis. As a Washington, D.C. public charter school, AppleTree receives District of Columbia per-pupil funds for each child it serves — about $18,500 per-student in operating and per-pupil funds in 2015-16, which is roughly the same amount as elementary schools receive for elementary students. AppleTree’s charter school status also gives it additional flexibility in how it serves students. Unlike most early childhood programs, AppleTree is not held to the traditional, prescriptive input-based quality measures. Instead, the D.C. Public Charter School Board (PCSB), which oversees AppleTree Early Learning, uses a preschool-specific framework that holistically assesses quality based on school environment and student learning outcomes, as measured by progress on school-selected child assessments.

AppleTree has used this flexibility to continuously innovate and refine its instructional model to improve results for students. In 2010, the AppleTree Institute, won a $5 million federal Investing in Innovation (i3) grant to develop the ECR model, which codifies AppleTree’s approach to support implementation in AppleTree classrooms and replication in other schools. As part of AppleTree Institute’s continuing research and development, the organization measures outcomes and gathers feedback from the implementation partners as well as from AppleTree Early Learning schools.

Curriculum

The ECR instructional model integrates three components: a curriculum that defines what to teach, a professional development framework that provides guidance on how to teach, and tools for measuring and assessing the results of teaching and learning. The ECR curriculum includes a two-year scope and sequence that is differentiated for three- and four-year-olds, and is aligned to the Common Core State Standards. The ECR curriculum includes six topic areas: family, community, art, culture, math, and literacy. This content is delivered through daily, structured instructional sessions; children receive their first instruction on the topic in a whole-group forum, then practice skills in facilitated small groups and independent learning opportunities.

Staffing & Professional Development

High-quality teaching is central to AppleTree’s model. AppleTree classrooms have three adults—a lead teacher, a second lead teacher or teaching fellow, and a teacher assistant. All of AppleTree’s lead teachers have bachelor’s degrees and are paid comparably to local K-12 teachers. As a charter school, AppleTree is not required to employ teachers with state early childhood certifications, but it prioritizes hiring teachers with the training, experience, and skills to be effective early educators. It has also invested in building the pipeline of preschool teaching talent, both for its own schools and other D.C. early childhood programs. AppleTree created a teaching fellowship program, in which recent college graduates work for a year as “fellows” in AppleTree classrooms to develop their skills to become lead teachers at AppleTree or other D.C. schools after completing their fellowship.

AppleTree also supports teachers with ongoing, aligned, job-embedded professional development resources designed to address each teacher’s specific needs. The Attributes Framework is a list of evidence-based instructional practices that teachers should use in each lesson. The Quality Indicator observation tool is a progress monitoring tool that allows leadership to observe teachers’ instructional practice and provide feedback. School leadership teams use data from these tools and the child assessments to analyze teacher performance and determine the teacher practices that are most aligned with student achievement and the areas where teachers are struggling, then develop resources to support teachers in those areas and inform coaching sessions.
Program Expansion

For the past several years, AppleTree has worked to help more pre-k programs — both in charter and other settings — use the ECR model. AppleTree provides those programs with the curriculum, assessments, and professional development included in the ECR model. In addition, AppleTree works directly with the school to identify areas where it needs to improve, help the leadership plan for and support improvement, and support the program faculty implement the components of the model. In the 2015-16 school year, 8 D.C. charter schools outside of AppleTree implemented ECR in 73 classrooms, serving nearly 1,500 3- and 4-year-olds. Two other schools are implementing pieces of AppleTree's approach (for example, only the curriculum or the assessments) but AppleTree's partnerships with those programs is less systemized.

Data-Driven Instruction

AppleTree's ECR model includes child assessments that give teachers the data they need to make real-time instructional decisions. The model's academic assessments, called Progress Monitoring tools, allow teachers to directly assess children's language, math, and emerging literacy skills on a laptop or iPad, then use the data to differentiate instruction and group children for small group lessons. AppleTree also highly values children's social-emotional development, and developed the Positive Behavior Rating Scale (PBRS) to enable teachers to track students' social-emotional development. Historically, social-emotional development has been measured using a deficit approach — intent on identifying what children are doing wrong (e.g., "hits peers" or "cannot sustain attention").

AppleTree created these developmentally appropriate, rigorous assessments for young children because none of the existing assessments fit their needs. Through ECR, it is now making these assessment options available to other providers seeking developmentally appropriate assessments that can inform teacher practice and continuous improvement and are not prohibitively expensive or time-consuming.

AppleTree also relies on child and teacher data, from ECR tools and other sources, to drive continuous improvement efforts at the principal and campus level. Principals build their capacity as a school's instructional leader through quarterly leadership meetings, poring over data and strategizing solutions with other principals, and in summer sessions with data from previous years. In addition, AppleTree's leaders analyze observational, interview, and outcome data to identify each campus' strengths and weaknesses, share their findings with each site and make recommendations for how to improve site performance. The result is an implementation plan based in data.

GROWTH OPPORTUNITIES

AppleTree has built a high-quality instructional model and has successfully worked with other providers to implement it. The organization faces challenges, however, in determining how to best implement the Every Child Ready model — or pieces of it — in other programs, specifically those with fewer resources and less flexibility than AppleTree. The organization is taking steps, however, to address this issue. AppleTree is strategizing, for example, on how to adjust Every Child Ready to better meet the needs of, and fit within the unique circumstances of, other providers. AppleTree also recently hired a Chief of Products and Services to oversee this work.

ADDITIONAL RESOURCES

- AppleTree Schools overview
- Every Child Ready overview
- AppleTree Institute's Research and Development
- D.C. Public Charter School Board: AppleTree Early Learning PCS annual reports
- U.S. Department of Education Investing in Innovation (i3) Awards
- National Council for Teacher Quality: Case Study, Every Child Ready
- National Charter School Resource Center: Case Study, AppleTree Early Learning
- University of Pennsylvania Center for High Impact Philanthropy: Case Study, AppleTree
- Pioneer Institute, Seeds of Achievement: AppleTree's Early Childhood D.C. Charter Schools
In 2005, then-Mayor Thomas Menino promised that Boston Public Schools would eventually provide universal, full-day preschool for 4-year-olds. Today, the Boston preschool program serves 2,800 students, or about 68 percent of 4-year-olds in the city. Statewide, Massachusetts offers preschool to only 7 percent of 4-year-olds. Enrollment in Boston pre-k is available to all 4-year-olds in neighborhoods of schools that offer the program, regardless of income. Boston has a diverse student population — 41 percent of students are Hispanic/Latino, 32 percent are Black/African American, 14 percent are White, and 50 percent are low-income — so the Boston pre-k program serves a more diverse population than most universal pre-k programs and the state overall. All Boston pre-k classrooms offer full-day, full-school-year programming and are accredited by the National Association for the Education of Young Children (NAEYC). Boston’s experience shows that cities and local school districts can take the lead on expanding pre-k access when state policymakers do not.

EVIDENCE OF EFFECTIVENESS

Boston’s pre-k stands out for the quality of its program. An independent evaluation by Harvard University researchers found that Boston’s preschool program substantially improved children’s math, literacy, and language skills and had smaller, but still statistically significant, impacts on executive functioning and emotion recognition. Researchers also found evidence that these benefits persist over time: students who attended Boston pre-k are more likely to score proficient or above on the 3rd grade state assessments than their peers — including those who attended another preschool program. Boston’s own data show that children who attend the program are more likely to be ready for kindergarten than their peers who did not attend. Boston’s preschool program also appears to close the readiness gap at school entry for low-income students and students of color: Black/African American and Hispanic/Latino children who attended the program have stronger early literacy skills at the beginning of kindergarten than White children who did not attend, and low-income children who attended Boston pre-k outperformed their higher-income peers who did not attend. Dr. Jason Sachs, who has led Boston’s preschool program since 2005, credits the program’s success to three factors: its research-based curriculum, the qualifications of its teachers, and the support and professional development it provides to its staff.
**Program Design**

**Program Funding**

Boston Public Schools spends about $12,500 per preschool child per year. Because Massachusetts does not provide universal pre-k, Boston decided to use its own funds to serve 4-year-olds. The city prioritizes the investment because its leaders believe preschool is crucial to improving long-term outcomes; despite a deficit in the city's budget in 2016-17, current Mayor Martin Walsh committed $3.1 million to fund public preschool.

**Curriculum**

All Boston pre-k classrooms use two evidence-based curricula, *Opening the World of Learning* (OWL) and *Building Blocks*. These curricula are noteworthy because they focus on improving academic outcomes and follow a structured sequence while being play-based. In other words, the curricula are rigorous without being rote. OWL develops children's language, literacy, and socio-emotional skills through a comprehensive, embedded curriculum. Building Blocks is a complementary, software-based mathematics curriculum. As with OWL, the basic approach of Building Blocks is to teach mathematics from activities based on children's experiences and interests, so that children can "mathematize" their everyday activities. And while the curricula come fully formed, Sachs and his team are constantly tweaking and improving based on teacher feedback.

Boston's preschool program demonstrates that school districts can offer high-quality pre-k programs when they prioritize quality and hire leaders who understand how young children learn. Boston was careful not to simply "push down" developmentally inappropriate practices from later grades when designing and implementing the program. In fact, Boston's pre-k curricula have been so successful that the district has since implemented similar, developmentally appropriate curricula in kindergarten and first grade classrooms.

**Staffing & Professional Development**

High-quality teachers are another crucial component of Boston pre-k's quality. All of Boston's preschool teachers have bachelor's degrees and certifications that allow them to teach young children. They are paid on the same salary schedule as other teachers in Boston Public Schools — meaning that the starting salary for Boston preschool teachers is $52,632, nearly double the median salary for preschool teachers nationally. The program also invests heavily in teacher development. All teachers receive individualized, one-on-one coaching to improve the quality of their teaching. Coaches work with a maximum of ten classrooms, staying with those teachers for three years. Boston also provides teachers with formal professional development sessions based on areas of need.

**Diverse Delivery**

The majority of Boston's preschool students attend programs operated by the school district, but Boston has started developing partnerships with community-based providers to offer pre-k. Between 2013 and 2015, the district ran a diverse delivery pilot called K1 in Diverse Settings (K1DS). Through this pilot, the district partnered with community-based providers to create a network of public and private early childhood providers, increasing access and improving the quality of programming citywide. OWL and Building Blocks curricula, coaching for teachers, and additional director support. In theory, these interventions improve the quality of instruction in partner providers and increase teacher retention, satisfaction, and motivation, ultimately leading to improved child outcomes.

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The K1DS pilot ended in 2015, but Boston is continuing the partnership model with funding it received through the federal Preschool Expansion Grant (PEG) program. The city received nearly $4 million to expand the pre-k program into an additional 15 classrooms at community-based providers, adding 300 slots to the number of children served.

Boston’s partnerships with private providers are particularly promising given the expansion of preschool and increasing interest in early childhood education across cities and states. If these partnerships prove successful, they could serve as the precedent for such partnerships elsewhere.

**GROWTH OPPORTUNITIES**

Boston’s pre-k program is exceptionally strong, but to date has primarily been operated by school-based providers. As evidenced by the K1DS pilot and the Preschool Expansion Grant, the city recognizes that incorporating diverse providers into its pre-k program is necessary to increase access for children and provide parents with high-quality options — but there is an opportunity for growth in this area. Moreover, Massachusetts statewide has struggled with accepting the potential of diverse delivery — in K-12 and the preschool years — which further complicates Boston’s progress on this issue.

**ADDITIONAL RESOURCES**

- Boston Public Schools, Department of Early Childhood: [Standards and Guidelines](#)
- Correlation of Opening the World of Learning to Teaching Strategies GOLD Assessment
- WBUR: [Why Boston Doesn’t Have Universal Preschool Yet](#)
- The Atlantic: [What Boston’s Preschools Get Right](#)
- Journal of Behavioral Science and Policy: [Launching Preschool 2.0](#)
- Foundation for Child Development: Investing in Our Future: [The Evidence Base on Preschool](#)
CAP Tulsa is an anti-poverty organization and Head Start grantee in Tulsa, Oklahoma that operates 10 full-day preschool centers. The organization opened its first center in 1998 and now serves more than 2,000 children from birth through age four from a range of backgrounds: More than 40 percent of enrolled children are Hispanic/Latino, 30 percent are Black/African American, 14 percent are White, and more than 30 percent have a home language other than English.

CAP Tulsa’s ultimate goal is to break the cycle of intergenerational poverty — for participating children to grow up and achieve economic success so that their children are not born into poverty — by combining high-quality early childhood education with innovative family supports and resources that promote nurturing parenting and financial stability.

EVIDENCE OF EFFECTIVENESS

Independent research shows that children who attend publicly funded preschool in Tulsa — including CAP Tulsa students — make significant learning gains and that these gains are sustained through elementary school.15 Indeed, the Tulsa preschool program research offers some of the strongest evidence for the potential benefits of universal preschool. Subsequent research examined differences in student learning outcomes between children who attended public school preschool and those served by CAP Tulsa.

It found that both Tulsa Public Schools’ students and Head Start students made gains in school readiness skills, but that children attending public school preschool programs made greater gains in early literacy skills, while children in CAP Tulsa’s Head Start experienced improved health outcomes.16 Follow-up studies of children through 7th grade found that CAP Tulsa students had improved math achievement and reduced rates of grade retention and chronic absenteeism through middle school, compared to children who did not attend preschool at all.17

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Although evidence that CAP Tulsa is improving both school readiness and later educational outcomes for children it serves, the agency's leaders are not satisfied with these results. CAP Tulsa’s own internal data suggests that, while the program is improving children’s kindergarten readiness, that impact weakens over time as children move into the Tulsa Public Schools. In response to this data, CAP Tulsa’s leadership have committed to hold themselves accountable for the 3rd grade achievement of CAP alumni. Doing so will require both increasing children’s learning gains in Head Start, and working with parents and schools to ensure gains are sustained.

PROGRAM DESIGN

Program Funding

CAP Tulsa receives funding from the federal Head Start program as well as Oklahoma’s universal preschool program. Since the 1990s, Oklahoma public schools have been able to receive state funding to enroll 4-year-olds. As a result, roughly three-quarters of the state’s 4-year-olds attend publicly funded pre-k. Although funds flow to districts through the state school funding formula, districts may collaborate with community-based providers, including child care centers and Head Start programs like CAP Tulsa, to serve 4-year-olds. Because CAP Tulsa receives both Head Start and state pre-k funds, it is able to spend more per-child than the typical Head Start or state pre-k program, which allows it to offer a full-year, full-school-day program and to pay its teachers at the same level as the Tulsa Public Schools. CAP Tulsa also raises significant philanthropic funding to support research, development, and continuous improvement of its programs. CAP Tulsa also receives funding from the Oklahoma Early Childhood Program, a dedicated funding source for children age 3 and younger.

Staffing & Professional Development

CAP Tulsa invests significant resources in supporting, developing, and compensating its teachers and other staff. All lead teachers in the agency’s preschool classrooms have bachelor’s degrees and training in early childhood. CAP Tulsa also offers compensation and benefits comparable to Tulsa Public Schools, which helps with recruitment and retention. All CAP Tulsa teachers also receive individualized coaching from dedicated CAP Tulsa Instructional Coaches, as well as professional development opportunities. Central office staff will often develop agency-wide professional development based on common challenge areas.

Family Engagement

CAP Tulsa’s dual-generation approach seeks to simultaneously support children’s development and empower their parents. CAP offers a range of services to address the varied needs (e.g., social, economic, and health) of parents and families. It views its preschool program as a gateway for engaging low-income families, reaching parents as early as possible and continuing their support for children through 3rd grade. Taken together, these priorities ensure that CAP Tulsa maintains a broad focus on the continuum of factors that affect a child’s development. To do so, CAP Tulsa also invests resources in state-level policy and advocacy, as well as in developing partnerships with organizations that serve children before and after preschool.

Data-Driven Instruction

Central to these efforts is CAP Tulsa’s commitment to use data to support ongoing continuous improvement at the central office, school, and classroom level. Staff at every level of the organization have access to four key types of data that CAP Tulsa collects: operational metrics, family data, child data, and classroom data (including teacher data). CAP Tulsa’s instructional coaches use child and classroom data to inform the support they provide to teachers; school leaders use data to inform ongoing improvement and identify strengths and weaknesses in their schools or centers; and the Central Organizational leadership tie data together and analyze connections across different data sources to identify strengths, weaknesses, trends, and areas for improvement.
When CAP Tulsa leaders identify an area for improvement, the organization will pilot strategies to address those areas in a few centers or classrooms, and use data to assess the impact of those pilots. If the pilots prove effective, they may scale the strategy program-wide. CAP Tulsa is currently piloting several strategies to improve professional development and child outcomes, including a new curriculum for four-year-olds and separating out professional development for teachers of three- and four-year-olds. CAP Tulsa has also sought a positive culture around data, in which teachers and other staff view data as something that supports their growth and development, rather than something punitive. Program leadership decided, for example, to use child outcome data exclusively in conversations about educator growth. CAP Tulsa’s leadership has also instituted processes to try to make collection of child assessments and other data as seamless as possible for teachers, so that they can focus on the quality of their instruction.

Organizational Culture

CAP Tulsa has made it a priority to be a great place to work — not just for teachers, but for all staff. The NonProfit Times identified CAP as one of the nation’s fifty best nonprofits to work for, and Oklahoma Magazine identified it as one of the best places to work in Oklahoma. Program leadership regularly conducts staff satisfaction surveys to gauge the effectiveness of various efforts and initiatives. CAP Tulsa has established a strong staff culture and strong talent systems. These systems include a staff evaluation system, a comprehensive human capital management system that allows all staff within the organization to identify professional growth goals and professional development to reach those goals, and a succession planning system that allows the agency to project future staffing needs and pipeline.

GROWTH OPPORTUNITIES

CAP Tulsa offers a high-quality program, but still faces challenges. While CAP Tulsa hires teachers with degrees and training in early childhood education, teacher preparation programs do not always provide adequate training, so beginning teachers are not consistently ready to teach on their first day in the classroom. To address this need, the agency has partnered with Teach For America to train new Teach For America corps members in CAP Tulsa’s centers during the summer before they begin teaching. Some of these corps members then work as teachers at CAP Tulsa, and the agency’s own internal data shows they are no less effective than teachers prepared through more traditional routes. CAP Tulsa has also struggled to identify appropriate ways of measuring children’s learning and development across the full range of domains that contribute to long-term success. The program also continues to refine its approach to engaging families and supporting children who have experienced trauma or demonstrate challenging behaviors. CAP Tulsa’s openness to innovation and focus on data informed continuous improvement allow it to continue to improve both its practice and results across the range of services it provides.

ADDITIONAL RESOURCES

- CAP Tulsa: Alumni Impact Project
- CAP Tulsa: Innovation Lab
- Child Trends: Case Study, CAP Tulsa
- Georgetown Center for Research on Children in the United States: Research Area: The Tulsa Pre-K Project
City Garden Montessori is a charter school in St. Louis, Missouri that offers preschool through 8th grade. The preschool opened as a Montessori school in 1995, but did not add older grades or become a charter until 2008. City Garden Montessori serves a diverse student population: 50 percent of students are White, 42 percent are Black/African American, and 44 percent are eligible for free or reduced-price lunch. Most children attend full-day preschool, but the school also offers a part-day option.

Throughout its history, City Garden Montessori heavily emphasized diversity and inclusion. Today, the school seeks to reflect the diversity of St. Louis in its enrollment and actions. The result is a racially and economically diverse school whose mission is to prepare students who value and respect themselves, others, the environment, and the global community, thereby strengthening the families and communities they serve and St. Louis as a whole.

City Garden was originally a privately funded Montessori school that only offered prekindergarten. Parents of children enrolled in the preschool, however, wanted their children to continue in this inclusive Montessori environment, so they sought a way to expand City Garden into later grades. Charter schooling presented a viable option. Working with City Garden’s teachers and board of directors, the parents applied to open City Garden as a K-3 charter school in the first year.

The City Garden planning committee wanted to enroll a diverse population of students and give traditionally underserved communities access to a high-quality school. To that end, they intentionally located the school in a historically racially and economically diverse neighborhood of St. Louis. The planning committee also applied to open City Garden as a neighborhood charter school. In other words, like traditional public schools, City Garden enrolls students based on their proximity to the school, rather than opening enrollment to students across the city. Because the surrounding area is so diverse – though it is increasingly less so as more affluent families have been drawn to the positive changes in this part of the city — the school maintains a racially and economically diverse student population.
EVIDENCE OF EFFECTIVENESS

City Garden’s efforts have been successful. The school recently piloted a nationally norm-referenced kindergarten readiness assessment from the Northwest Evaluation Association (NWEA) for its preschool students. The test measures motor skills, concepts, and language. The first year of data show that City Garden’s preschoolers outperform their peers nationally: 75 percent of City Garden’s preschool students were proficient in reading when they reached kindergarten, compared to 64 percent of all other kindergarten students. Nearly 80 percent of students who attended City Garden’s preschool program for two years, and 70 percent of students who attended for one year, scored in the top 20th percentile of all preschool students nationwide.18

PROGRAM DESIGN

Program Funding

City Garden receives no public funding for their preschool program. Parents of enrolled students pay tuition on a sliding scale based on income. About half of City Garden students receive some form of tuition assistance based on their family income. The remainder of the funding for preschool comes from philanthropic sources; the school must raise about $250,000 per year to cover the cost of preschool.

Curriculum

City Garden uses the Montessori method in its classrooms. Montessori is an educational approach based in the theory that children can and should drive their own education, and that the role of the school is to foster the child’s natural inclination to learn. The Montessori curriculum includes hundreds of specially designed activities, arranged in a predetermined sequence of increasing complexity. The activities teach one concept at a time, and are self-correcting — the child can determine if they have done the activity correctly without external review or validation from the teacher. Children learn by experimenting rather than teacher oversight.

In a Montessori classroom, teachers serve as guides rather than instructors. Children, rather than the teacher, determine which activities children will use throughout the day. Children can use any activity that the teacher has previously introduced. Teachers may lay out specific activities that will appeal to children based on the child’s interests, needs, and developmental level, but ultimately the child selects what he/she wants to do. Once the child has mastered a specific skill, the teacher presents another activity of increasing complexity, gradually advancing the child through the curriculum.

In addition to following the Montessori approach, City Garden also incorporated Anti-Bias, Anti-Racism (ABAR) work into the school’s culture, curriculum, and theory of change. A key aspect of City Garden’s ABAR culture is the heavy emphasis on inclusiveness. The school is committed to “radical hospitality,” meaning staff and leadership try to foster a sense of belonging for all school families. The idea is that if every parent knows they are wanted and valued, they will be more invested in their child’s experience and will be more engaged in the school community — ultimately leading to improved student learning.

Family Engagement

City Garden has committed to radical hospitality through their staffing and budget. They employ two full-time professionals, a Family Support Coordinator and a Director of Community Engagement and Racial Equity, whose duties are to ensure that the needs — specifically non-academic needs — of prospective and current families are met and that the school’s commitment to Anti-Bias/Anti-Racism is embedded in the culture of the school and everything it touches. The annual school budget also includes some discretionary funds to support families experiencing challenges.

Constant and active outreach to families is a critical element of radical hospitality. Every morning, the principal, Family Support Coordinator, and other staff greet each student and parent as they arrive to the school. It is a way to triage any issues with the child, but also creates daily, informal interactions between the parent and school staff.

By design, City Garden does not fund transportation for students so that someone close to the child brings the child to school and has that daily interaction, deepening their commitment to the school and the child’s education. City Garden also hosts regular social gatherings, maintains an open door policy for all families, and facilitates monthly conversations among parents and staff focusing on race and bias.

The Montessori model proposes that if a child is not thriving in a school, there needs to be a change with the system, not the child; at City Garden, that same philosophy holds for parent engagement. To that end, the school seeks out available data to determine challenge areas. Staff regularly review attendance at parent events, for example, and makes process or programming changes if there is low attendance among a certain group.

**GROWTH OPPORTUNITIES**

City Garden faces unique challenges with recruiting and retaining qualified teachers because it is a Montessori charter school. To be an officially recognized Montessori educator, teachers must earn their certification through a specialized training program obtained through the Association Montessori International (AMI) or the American Montessori Society (AMS). However, Missouri law does not recognize Montessori certification as an appropriate teaching credential. So, in order to be in accordance with both Montessori and state policy, City Garden teachers must have both Montessori and state certifications. In the existing pool of teachers, there are few who have both types of certifications. As a result, the pipeline of incoming teachers is incredibly limited, and the majority of City Garden’s teachers have had to get some form of additional training. In addition, City Garden has had trouble recruiting a teaching force that reflects their commitment to diversity. City Garden has taken several steps to make the school more appealing, including raising salaries to be comparable to the district salary schedule, building relationships with and recruiting from local communities, and investing in diversity and inclusion training for teachers, parents, staff, and the board of directors.

**ADDITIONAL RESOURCES**

- City Garden Montessori: [Montessori Philosophy](#)
- City Garden Montessori: [Play Research](#)
- City Garden Montessori: [Charter School Proposal](#)
- National Center for Montessori in the Public Sector: [Case study, City Garden Montessori](#)
- IFF: [Case study, City Garden Montessori](#)
- St. Louis Post-Dispatch: [Charter school’s success boosts city neighborhoods](#)
Common threads among the programs profiled in this report can offer lessons for Connecticut. In particular, these programs:

- Offer strategies for recruiting, retaining, and developing a high-quality early childhood workforce.

- Maintain an intentional focus on learning and development, through their curricula, assessments and instructional models.

- Represent a variety of program structures, all of which have led to results for children.

- Demonstrate possibilities for driving authentic continuous improvement using program-, family-, and child-level data.
WORKFORCE DEVELOPMENT

Staffing

All of these programs except Acelero Learning (Acelero) hire exclusively teachers with bachelor's degrees. Further, City Garden Montessori, Boston pre-k, AppleTree Early Learning (AppleTree), and CAP Tulsa all pay preschool teachers' salaries comparable to those of K-12 teachers in the local school district. Acelero does so when state funding allows. That is not the case in Connecticut. Currently, the average pre-k teacher in a community-based setting in Connecticut makes about $11,000 less than the average public school teacher.

As Connecticut works to elevate the early childhood workforce, and meet a 2020 deadline for ensuring that all teachers in state-funded pre-k programs have bachelor's degrees, the methods these programs use to attract and retain teachers offer potential lessons. Policymakers should help ensure Connecticut early childhood providers offer competitive compensation for early childhood educators by providing sufficient funding to both school and community based state-funded early childhood programs. As Connecticut moves to develop and implement a Quality Recognition and Improvement System (QRIS), that system should also incorporate incentives for providers to provide competitive pay and benefits.

Preparation

One challenge to ensuring that all teachers have adequate preparation — both in Connecticut and for these providers — is a shortage of teachers with appropriate credentials. CAP Tulsa has responded to this challenge by partnering with Teach for America, a nonprofit that recruits and trains teachers to work in low-income schools. CAP hires several Teach for America corps members each year and 75 percent remained in Tulsa after their service year ended. CAP’s internal analysis also shows that TFA teachers are just as effective as traditionally prepared teachers with bachelor's degrees. Similarly, AppleTree created a Teaching Fellows program to build its supply of teachers. Teaching fellows, who are college graduates interested in teaching, are paired with a mentor teacher and receive a year of professional development, coaching, and classroom experience. After their year of training is complete, teaching fellows are eligible to become lead teachers.

These models illustrate the potential of alternative teacher preparation programs to build the supply of skilled pre-k teachers. Connecticut’s licensure system, however, creates barriers to alternative licensure into early childhood education. To mitigate this issue, Connecticut policymakers should expand existing alternate pathways for early childhood educators and consider creating additional alternative pathways.

For example, policymakers can create an additional state-approved alternate pathway that allows teachers with bachelor’s degrees to earn early childhood credentials while working under a resident educator certificate, or revise the current “resident educator certification” definition to include preschool teachers in school- and community-based settings.
**Professional Development**

Each program illustrates the importance of improving instructional quality through professional development. Acelero, AppleTree, Boston pre-k, and CAP Tulsa all rely on job-embedded training and individualized coaching to drive their teachers’ professional development. Coaches observe teachers and review student performance data to identify teachers’ growth needs and work with them on an ongoing basis to improve their instructional practice. To further support these efforts, Acelero, AppleTree, and CAP Tulsa developed instruments that outline instructional expectations for teachers, which teachers use to self-reflect on their practice outside of their formalized coaching sessions.

Connecticut requires school readiness programs to have a plan for professional development for staff, and teachers in public schools and licensed childcare centers are required to complete a certain number of professional development hours annually. But current state policies set few standards or guidelines for the quality of professional development. Acelero’s approach, in which Center Directors serve as instructional leaders, may offer an option to make job-embedded coaching more affordable and sustainable for community-based early childhood providers. **Connecticut early education programs may benefit from adopting similar professional development structures.**

**INTENTIONAL FOCUS ON LEARNING AND DEVELOPMENT**

**Instructional Models**

Each program incorporates an intentional focus on supporting children’s learning to prepare them to succeed in school. That does not mean that these programs do not emphasize play or comprehensive services. Indeed, none of these programs fit a “drill-and-test” stereotype, and all of them offer developmentally appropriate instructional models that focus on the whole child. City Garden Montessori, for example, emphasizes social justice and equity with an anti-bias, anti-racism curriculum. Acelero focuses so heavily on family engagement that they developed a separate curriculum for families.

The intentionality with which these programs designed content and language-rich, developmentally appropriate learning experiences for young children offers lessons for Connecticut. **Connecticut should continue to encourage programs to use instructional models that prepare students for school without sacrificing developmentally appropriate practice, a focus on the whole child, or other services.**
Curriculum

Each of these programs rely heavily on their curricula to help teachers create quality learning experiences for children. Each program uses a different curriculum, and some have gone so far as to develop their own. But all are play-based, developmentally appropriate, content- and language-rich, evidence-based, and offer potential models for Connecticut providers.

Currently, Connecticut's quality standards for publicly funded preschool programs focus largely on inputs, environments, and wraparound services, with less focus on programs' curriculum or the learning experiences that they provide for children. Connecticut should learn from the experience of these providers and consider adopting requirements for preschool providers to use age-appropriate, evidence-based curricula.

Assessments and Data

These programs worked through challenges with the existing child-level assessments to craft assessment systems that meet their needs. Acelero and AppleTree, for example, created their own real-time child assessments: Acelero modified an existing assessment to fit the organization's needs, and AppleTree created an entirely new set of child assessments of social-emotional and academic measures, including literacy, language, and math. Acelero also developed the Shine Insight data management system to “push” relevant data to staff. Currently, Connecticut requires programs to conduct annual evaluations of their effectiveness, but the state should consider going one step further: Connecticut should require that, at least annually, programs assess children using developmentally appropriate, evidence-based assessments and analyze those data to improve their programs and better meet student needs.

PROGRAM STRUCTURE AND FUNDING

Delivery System and Type of Provider

CAP Tulsa, AppleTree, and Acelero operate in diverse delivery systems, similar to the system used by Connecticut's School Readiness Program. Among these programs, two are charter schools, two are community-based providers, and one is a traditional school district. These programs show that a variety of providers in different delivery systems can offer high-quality early learning experiences for children.

Inclusion of diverse providers is a current strength of Connecticut's approach to early childhood education because it allows the state to leverage the capacity and expertise of existing early childhood providers and to offer state-funded preschool in a range of settings that meet varying local and family needs. As Connecticut works toward building an integrated early childhood system, it should maintain this diversity in delivery systems and providers.
Program Day

Most of these programs offer school-day programs, operating for roughly six hours a day. Acelero and City Garden Montessori also offer part-day options. AppleTree allows working parents to purchase wraparound care services that extend the six-hour AppleTree day to provide work-day, or ten-hour, services to families.

This variation suggests there is not one “right” set of program design choices that all Connecticut programs should adopt, but rather that the state’s programs should remain diverse in delivery and be customized to reflect the needs of the population they serve and make the most of available resources.

Funding

Boston pre-k receives roughly $12,500 per child, and AppleTree Early Learning receives $18,500 per child, to offer six-hour programs. Comparatively, Connecticut early childhood programs generally operate full-day programs — but receive far less funding from the state to do so. Early childhood providers in Connecticut receive roughly $9,000 per child from the state to offer a full-day, ten-hour program.

The difference in funding and length of day between these programs strongly suggests that policymakers in Connecticut should consider the true cost of care in their funding decisions. When the state considers school finance reform, preschool funding must be a part of this conversation without abandoning the state’s crucial commitment to high-quality, diverse early childhood programming.

CONTINUOUS IMPROVEMENT AND ACCOUNTABILITY

Program-Driven Research and Evaluation

Each program profiled here collects their own child, parent, and program data to use for continuous improvement. City Garden Montessori, Boston pre-k, and CAP Tulsa rely on kindergarten readiness data to inform program changes, and Boston pre-k, CAP Tulsa, and Acelero have developed partnerships with academic researchers to track student performance after kindergarten entry. These long-term perspectives on student performance give the programs additional information about the effectiveness of their program.

Connecticut can support this type of program improvement by funding networked learning communities — groups of early childhood programs supported by researchers — or by incorporating data-informed continuous improvement into the expectations of School Readiness Councils. The state should consider requiring, perhaps in the forthcoming Quality Recognition Improvement System (QRIS), that programs have a data-informed continuous improvement process in place. Finally, Connecticut should implement the newly redesigned Kindergarten Entrance Inventory assessment and ensure that early childhood programs have access to Kindergarten Entrance Inventory data for children who attended their programs, so that programs can use this data to identify strengths and weaknesses and inform ongoing improvement.
State-Level Data Systems

Connecticut is working to develop an integrated early childhood data system that tracks children's early learning experiences, but does not yet link early childhood program data to K-12 performance. Building this link and capacity would provide real-time information on children's performance to teachers and program leaders, allowing them to make improvements in program structure and practice. Such a system would also allow the state to better differentiate program performance, support program development, identify high- and low-performers and give policymakers information about the services that children receive and the impact of those investments.

Public Access to Data on Program Quality

Finally, Connecticut parents and other early childhood stakeholders should have access to any forthcoming information about the quality of early childhood providers in the state. As mentioned, the programs profiled in this report are, necessarily, from outside of Connecticut because of the dearth of reliable data on the quality of Connecticut programs. Connecticut should develop a strategy for measuring the quality of early childhood providers in the state, differentiating providers based on their performance on those measures, and making that information accessible and transparent while maintaining individual child, family, and staff privacy.
ACKNOWLEDGEMENTS

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The views expressed in this report are those of ConnCAN. Neither these views, nor any errors of fact or judgment, should be attributed to any of the aforementioned organizations or individuals.
APPENDIX
November 1, 2016

Dear Bellwether Education Partners:

Thank you for highlighting City Garden Montessori School in your recent publication, and for the opportunity to respond.

We are at a critical moment in the history of the United States. Amidst increasingly devastating realities for many of our nation’s children and families, there is a renewed call for racial and economic justice, led by young people who face the impacts of historic inequities on a daily basis. This movement and the gaining momentum for change present real opportunities for transformation in our country. Improving educational opportunities for all children and closing education gaps must be at the center of this work—and, this begins with early childhood education. Access to excellent education must begin during the early years of a child’s life.

The goal of City Garden Montessori School has been to contribute to the movement toward equity, by creating an outstanding neighborhood school that is intentionally racially and economically integrated, that adopts an anti-biased, antiracist school identity and that actively works to foster connection and community.

The school grew out of parents' desires to address the racial and economic inequities that plague the St. Louis region. City Garden began as a small Montessori preschool program in 1995 and expanded in 2008, opening a charter school that would reflect the demographics of the local neighborhood. Black, White and Brown parents were determined to change the trajectory for their own children, and for their neighborhoods.

Our students’ academic outcomes, both in our early childhood program and in our K-8 program, are high in comparison to most other programs. However, we recognize that we still have much work to do to continue to refine our model and to show that it achieves exceptional results for all children. We remain committed to continuous learning and improvement, so that academic and life outcomes are no longer determined by race, economic background or any other factors—and so that our society might benefit from the gifts that all of our children have to offer.

Again, thank you for the opportunity to be part of this important dialogue.

Sincerely,

Christie Huck, Executive Director
City Garden Montessori School
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St. Louis, Missouri 63110
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November 2016

Thank you for the opportunity to provide greater detail and information on AppleTree and Every Child Ready.

AppleTree is a Washington, DC-based nonprofit committed to erasing the achievement gap by providing the neediest of young children with the social, emotional, and cognitive foundations they need to thrive in school. With support from major funders and the US Department of Education, AppleTree has created a proprietary, comprehensive and evidence-based instructional model for three- and four-year-old children. Called Every Child Ready, this instructional model has three components:

- What to teach: A three-tiered curriculum, including an extensive set of books published by AppleTree.
- How to teach: A year-round training program for teachers and school leaders that includes summer sessions, regular mentoring, and in-class observation and feedback.
- How to tell it’s being done: An array of assessment tools that measure classroom effectiveness as well as individual students’ progress, allowing content to be adjusted to meet students where they are.

Every Child Ready is in use in schools throughout Washington, DC, including ten schools with 1,200 children managed by AppleTree. In addition, nine other schools or family service organizations make use of Every Child Ready (or its components) with the support of AppleTree’s expert staff of educators to educate over 900 children.

AppleTree’s focus is solely on early education. Its unique research-to-practice approach—it is both an R&D organization and a hands-on practitioner—has allowed it to test and refine Every Child Ready in real-world situations.

America has reached a point where providing effective early education interventions for our nation’s most vulnerable children is much more than a moral imperative. A growing number of economists, business and political leaders view raising the trajectory of young children’s learning as critical to the survival of America’s civic and economic way of life.

More than 20% of America’s children are now growing up in poverty. Researchers Betty Hart and Todd Risley documented the stunning fact; by the age of three, poor children of single parents hear 30 million fewer words than their better-off peers.
The result is the “achievement gap.” Children who start school behind their peers lack critical social/emotional and cognitive skills—and they rarely catch up.

These children have increased rates of grade retention, special education placement, dropping out, and incarceration as well as a lifetime reduction of wages and economic productivity. McKinsey & Co. argues the achievement gap imposes on the United States “the economic equivalent of a permanent national recession,” costing three to five percent of the nation’s GDP. The results are tragic for these children, our society, and for America’s competitiveness.

The answer to this crisis is high-quality, evidence-based early interventions and early education. Nobel prize winner James Heckman’s research demonstrates that such early interventions are the best policy lever available to lift people out of poverty; they close achievement gaps before kindergarten, with strong positive effects on children’s education and life outcomes.

Heckman’s conclusions are widely shared, and there is a growing consensus across the political spectrum in favor of a robust focus on early education.

Yet for all of the newfound support this $70 billion market enjoys, it is also chaotic and highly fragmented. Levels of quality span the spectrum. The sector’s workforce is generally undereducated and undertrained. School operations are often low quality and include a range of providers such as public and private daycare, nursery schools, Head Start, and state-funded preschools. Most critically, there is a lack of good, comprehensive instructional models that can target children’s deficits in cognitive and social-emotional skills and reverse the effects of the achievement gap.

The solution to this is AppleTree’s instructional model, Every Child Ready. Designed, developed and implemented with support from major funders and the US Department of Education, Every Child Ready is a promising, scalable, evidence-based solution to erasing the achievement gap and improving child outcomes.

Developed with the assistance of Reading First and Investing in Innovation (i3) grants from the US Department of Education, Every Child Ready includes a detailed curriculum; comprehensive training and professional development for teachers; and data-driven tools to measure program quality, monitor children’s progress, and individualize instruction.

Rather than consisting of sets of bulky curriculum books, Every Child Ready is available online through AppleTree’s web portal. All of the lessons in Every Child Ready are aligned to the Common Core standards. Each unit is three weeks long, and the lessons within a unit should be taught in order so that concepts can build throughout the unit. Opportunities for higher order thinking questions and problem solving are embedded within Every Child Ready’s recommended daily schedule, so that teachers know when they should target students’ learning.

Every Child Ready features--
- A full-day, engaging, evidence-based instructional program aligned with standards available to all children in a high-quality classroom lead by a bachelor-degreed teacher.
- Universal screening, regular progress monitoring, and data analysis to ensure that children are making progress.
● Differentiating instruction based on children’s progress, adding additional layers of support until progress is achieved.
● Professional development and individual coaching for teachers.
● An alignment system for school leadership.

Working with three and four-year-olds brings unique challenges, especially to those interested in assessing what young children know and are able to do. Research has demonstrated the importance of language and early literacy skills in supporting children’s later academic success. Therefore, AppleTree’s direct assessment work focuses on these domains, and includes both formative and summative assessments.

The academic assessments are administered approximately once every ten weeks. All children receive assessments in all domains. All screening assessments are designed for young children and are individually monitored. An analysis compiles data across domains for each student, identifies students at risk in each domain, and provides class means. Reports are then shared with teachers and school administrators. All teachers can access their students’ data on-line, sortable by standards and assessments, which assists teachers in planning for differentiation. Data are also shared regularly with parents during conferences, and teachers work with parents to support their children at home.

Every Child Ready’s response-to-intervention instructional approach consists of three tiers of instruction.

The foundational activity (Tier 1) for students is a robust, engaging, and developmentally appropriate instructional program as part of their everyday classroom experience.

Tiers 2 and 3 provide extra doses of education interventions for children that need them to ensure appropriate development in the areas of language, literacy, math, motor development, and social-emotional skills. Teachers and coaches craft Tier 2 plans using targeted evidence-based activities from AppleTree’s intervention database for delivery of small group lessons to at-risk preschoolers. Intervention activities are based on individual instructional need, classroom ecologies, developmentally appropriate practices, and child interests. Parents and other family members are encouraged to participate in the planning process, during which content, duration, intensity, and methods for determining effectiveness will be specified. In most cases, targeted children will never know that they are receiving anything extra or different from their peers.

Children who do not make sufficient progress in Tier 2 are considered for Tier 3 (special education) so that they can receive additional individualized specialist support (e.g., work with a speech-language pathologist, occupational therapist, etc.) within the context of their regular classrooms to the greatest extent possible.

AppleTree Schools

AppleTree manages ten schools, all within Washington DC, serving approximately 1,200 children ages three and four. Six of the schools are standalone campuses operated under AppleTree’s own charter. Those schools are as follows:
● Southwest, 801 7th Street SW
● Columbia Heights, 2750 14th Street NW
● Douglas Knoll, 2017 Savannah Terrace SE
● Lincoln Park, 138 12th Street NE
Oklahoma Ave, 330 21st Street NE
Parklands, 2011 Savannah Street SE

Four of the schools are what AppleTree calls its “@” schools. Housed within another charter school and operated under that school’s charter, they include:
- AppleTree@Achievement Prep, 908 Wahler Pl SE
- AppleTree@Democracy Prep, 3100 Martin Luther King Jr Ave SE,
- AppleTree@Perry Street Prep, 1800 Perry St NE
- AppleTree@Rocketship Education, 2335 Raynolds Place SE

Our AppleTree@partnerships have featured two turnarounds: Democracy Prep and Perry Street Prep; and with two high-performing elementary schools: Achievement Prep and Rocketship Education. Our second AppleTree@partner school with Rocketship will open next year.

All of AppleTree’s schools use the Every Child Ready instructional model, providing full-day instruction five days a week throughout the school year. From a child’s point of view, the classroom experience is fun, engaging and playful, and is designed to be developmentally appropriate (e.g., including centers’ activities, recess and nap-time).

AppleTree works to ensure that each classroom meets the five standards of Every Child Ready’s Essential Elements of Effective Preschools:

1. Structure: Classrooms are appropriately staffed, furnished, and supplied. Time exists for Every Child Ready professional development and independent and coach-supported team teacher planning.
2. Curriculum: Every Child Ready’s thematic curriculum, which includes a defined scope and sequence of instructional activities and aligned assessments that support the development of children’s language, early academic, and social-emotional skills, is implemented with fidelity.
3. Classroom Climate and Management: Classrooms are warm, safe, and productive. Positive behavior expectations are communicated and upheld consistently. Time is allocated to valuable instructional activities and transitions are minimized.
4. Instruction: High levels of teacher interaction support learning and scaffold understanding. Teachers balance structure with choice and explicit instruction with exploration. Play supports children’s learning.
5. Family Engagement: Teachers actively seek to make connections with their children’s parents, family members and other important people in their children’s lives. Teachers communicate the school’s educational goals for children, how children are progressing toward those goals, and how families can complement and extend classroom learning.

Praise for AppleTree and Every Child Ready

AppleTree and Every Child Ready have received national recognition. In July 2014, a major public policy think tank, the Boston-based Pioneer Institute, issued a research report paper titled "Seeds of Achievement" that urging states to “replicate AppleTree Institute’s high quality charter early education program.”

In a foreword to the report, noted education expert Sara Mead wrote:

“AppleTree’s story demonstrates the potential of high-quality preschool. It also illustrates the difficulty of realizing that potential … AppleTree didn’t achieve a high-quality program
or strong outcomes by chance. Its quality and outcomes result from highly intentional and research-based decisions about every aspect of program design from curriculum, to assessment, to teacher support and professional development coupled with high-quality execution.

Every Child Ready was praised in the 2014 book, “Moneyball for Government,” as “one of America’s most innovative and highest-impact social programs.”

In 2016, the Center for High Impact Philanthropy at the University of Pennsylvania identified Every Child Ready as a “high impact” investment in early learning: “All children attending AppleTree preschools, regardless of family income levels, advance their learning and skills leading up to kindergarten. At-risk students in particular, show greater rates of growth in literacy and math skills after participating in Every Child Ready, performing close to national averages on commonly used tests upon completing the program.”

In cooperation with the US Department of Education, the National Charter School Resource Center in 2016 produced a case study highlighting Every Child Ready and AppleTree schools.

With appreciation for the opportunity to detail our mission, program and impact, I am

Sincerely,

Jack McCarthy
President and CEO
AppleTree Institute for Education Innovation
Washington, DC