APPLETREE INSTITUTE FOR EDUCATION INNOVATION
REPLICATING HIGH-QUALITY CHARTER PRESCHOOLS
PROJECT NARRATIVE

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I. SUMMARY

AppleTree Institute for Education Innovation, Inc. ("AppleTree") seeks support from the Charter Schools Program (CSP) to replicate its successful network of early-education charter preschools, thereby increasing the number of high-quality early-learning programs in Washington, DC.

AppleTree is a non-profit 501(c)(3) organization based in Washington, DC. Its mission is "to close the achievement gap before children get to Kindergarten by providing three- and four-year-olds with the social, emotional, and cognitive foundations that enable them to thrive in school." Because Washington, DC fully funds preschools (both Pre-K3 and Pre-K4) in the same manner as K-12 education, AppleTree developed and now manages 11 charter preschools in the Nation's Capital, as shown in Appendix F.

AppleTree's schools are highly regarded, popular with young families and readily meet the grant eligibility requirements for the Replication and Expansion Grant Program:

- AppleTree serves a student population that averages 58 percent at-risk and 90 percent economically disadvantaged.

- AppleTree serves a diverse student population drawn from across the District (all charter schools in DC are district-wide, meaning students from any neighborhood may go to any charter school within DC) with a significant proportion of English Language Learners and Special-education students.

● AppleTree provides a high-quality education that has demonstrated significant positive results, especially for those who testing shows enter school the furthest behind. Many of its schools are the highest ranked by the DC Public Charter School Board.

With this grant funding from the CSP, AppleTree over the next five years plans to replicate its success by creating nine new schools. The table below shows AppleTree's plans for yearly replications, including projected student enrollment and special populations.

AppleTree: Projected New Schools									
Name	Address	Year to Open	Class-rooms	Enrolled Students	LEA Name	% Econ Disadvtgd	At Risk %	% ELL	SPED %
AppleTree@ LEARN PCS	Bolling Air Force Base	2020	4	84	LEARN PCS	60.0%	58.0%	1.5%	4.5%
AppleTree@ Harmony PCS	62 T St NE	2020	4	84	Harmony PCS	100.0%	63.8%	7.5%	16.0%
AppleTree Missouri Ave	1375 Missouri Ave NW	2020	8	168	AELPCS	100.0%	58.0%	6.5%	10.0%
AppleTree@ Frederick Douglass PCS	Expected to be Ward 4	2021	8	168	Frederick Douglass PCS	100.0%	58.0%	6.5%	10.0%
AppleTree@ Rocketship PCS #3	Expected to be Ward 5	2021	8	168	Rocketship PCS	100.0%	58.0%	6.5%	10.0%
AppleTree@Rocketship PCS #4	Expected to be Ward 4	2022	8	168	Rocketship PCS	100.0%	58.0%	6.5%	10.0%
AppleTree Waterfront	1001 4th St., SW	2022	6	126	AELPCS	70.0%	46.0%	6.5%	2.0%
AppleTree@ Birney PCS	Expected to be Ward 4	2023	8	168	Birney PCS	100.0%	58.0%	6.5%	10.0%
Turnaround school	TBD	2023	8	168	TBD	100.0%	58.0%	6.5%	10.0%
Totals/Averages			62	1302		94.5%	57.2%	6.2%	9.3%

The new schools – located in high-need areas and expected to be serving primarily at-risk children – would double AppleTree's size, providing a high-quality preschool education to nearly 2,600 children annually.

II. ABSOLUTE PRIORITY 2

In School Year ("SY") 2018-2019, AppleTree's 11 schools are educating approximately 1,300 children in preschools (there are two grades for preschool: Pre-K3 which serves mainly three-year-olds and Pre-K4 which serves mainly four-year-olds). Of those, 90 percent are identified as from economically disadvantaged circumstances and 58 percent are regarded by the District of Columbia as being "at risk."

This is no accident. AppleTree's stated mission – "to close the achievement gap" – focuses on children most at risk and AppleTree has worked to locate its schools in neighborhoods of the greatest need. (For example, six AppleTree schools are located in Wards 7 and 8, the most impoverished sections of the city, while no schools are located in upper Northwest, the wealthiest section of the city.) By law, charter schools in Washington, DC are district-wide (students from any part of the district may attend them), however, parents of young children are generally reluctant to send their children a great distance for school (Hastings, Kane, & Staiger, 2005), meaning most of AppleTree's students come from and reflect the high-need demographics of neighborhoods in which their preschools are located.

III. COMPETITIVE PREFERENCES

AppleTree meets three competitive preferences:

- **Competitive Preference Priority 1: Promoting diversity**: AppleTree intentionally locates its schools in areas where it can recruit children of diverse backgrounds. In the 2017-18 school year, AppleTree's network of schools served a student population consisting of 93% minority students, with the vast majority (90%) of them Black/African-American. Six of AppleTree's eleven schools are located in Wards 7 and 8 of Washington, DC, and over 95% of the students in these schools are Black, which reflects the demographics of these neighborhoods (Census data 2010 for Ward 8 - 93% black, Ward 7 - 95%).

    Washington, DC, is a changing city, however, but even in the midst of change, AppleTree strives to maintain diversity. For instance, several neighborhoods within the District of Columbia have undergone waves of gentrification in the past decade, including Columbia Heights and Capitol Hill – locations where AppleTree has maintained schools since 2007 and 2011, respectively. Despite the influx of wealthier and often times, whiter, local residents in these neighborhoods, AppleTree has sustained unique levels of racial and socioeconomic diversity at its schools. In SY 2017-18, for example, 28% of the students at the Columbia Heights school were identified as English Language Learners, with a total of eight languages represented, including Spanish, Amharic, and Arabic. Nearly 70% of the students at the Columbia Heights school qualified for free or reduced lunch and 76% of the students identified as non-white.

    Racial and socio-economic diversity has also intentionally been sustained at AppleTree's Lincoln Park school, which is located in the Capitol Hill neighborhood of

Washington, DC. In SY 2017-18, 56% of the students were non-white and nearly one-third of the students qualified for free or reduced lunch.

These examples of sustained diversity at the Columbia Heights and Lincoln Park schools demonstrate AppleTree's commitment to recruiting and serving students aligned to its mission of erasing the achievement gap.

- **Competitive Preference Priority 2: Reopening academically poor performing public schools as charter schools**. Two of the schools AppleTree presently manages (Perry Street Prep PCS and Democracy Prep PCS) were academically troubled and – at the request of DC Public Charter School Board ("DC PCSB") – AppleTree was brought in as a Charter Management Organization ("CMO") to turn around the school's operations. As evidenced by the letter of support from the executive director of the DC PCSB (Appendix C), AppleTree is well regarded by the District's chartering authority. It is presently engaged in ongoing discussions about becoming a CMO for one (or likely, more than one) future turnaround situations. That possibility is included in AppleTree's plans for replicating its school model.

- **Competitive Preference Priority 5: Novice applicant**: Although AppleTree has been the recipient of federal grants before (including an Investing in Innovation development grant in 2010), this is the first time it has applied for a replication and expansion grant from CSP.

<center>**IV. SELECTION CRITERIA**</center>

<center>**1. QUALITY OF THE APPLICANT**</center>

A. Background

AppleTree is a high-performing, mission-driven CMO network focused on improving access to quality early learning for in-need children so that they are ready to thrive in Kindergarten and beyond.

AppleTree was founded in 1996 as a charter school incubator in Washington, DC, and supported the founding of two charter high schools and one charter middle school. Following the Report of the National Reading Panel in 2000, struck by the persistence of the achievement gap even in high-quality schools, and intrigued by the role early education could play in eliminating that gap, CEO Jack McCarthy refocused AppleTree's vision to early education. AppleTree opened its first preschool – philanthropically funded but free to all – in 2001.

AppleTree has grown significantly since then, now managing 11 schools with budgeted revenues of over $29 million for the Fiscal Year ending June 30, 2019. AppleTree consists of two, related not-for-profits: AppleTree Institute for Education Innovation, Inc. (AppleTree Institute) and AppleTree Early Learning Public Charter School (AELPCS). From an operational point-of-view, however, the two organizations operate as one entity. All AppleTree schools are managed from the same home office and by the same home-office staff. Similarly, all AppleTree new school openings are managed by AppleTree's home-office staff.

B. Existing Schools

AppleTree opened its first charter school in 2005. Since then, as demonstrated in the two charts on the next page, it has grown steadily in both the number of schools and in enrollment. The first chart illustrates the increasing number of AppleTree schools in DC, opened through two CMO models (described in more detail on the next page). The second chart illustrates

AppleTree's increase in enrollment from fewer than 200 children in 2009 to approximately 1,300

Number of Schools
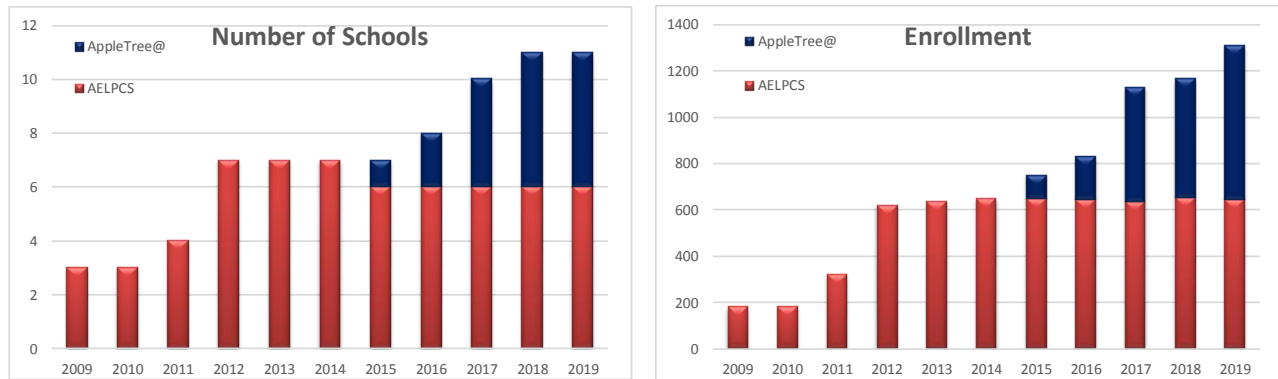
Enrollment

in 2019. In SY 2018-2019, AppleTree is now managing 11 charter schools with a combined

enrollment of close to 1,300.

AppleTree manages two kinds of charter preschools:

- *Standalone charter preschools* serving only grades Pre-K3 (primarily three-year-olds) and Pre-K4 (primarily four-year-olds). All of these schools are managed by AELPCS.

- *AppleTree@ preschools* where AppleTree is a co-CMO at a Local Education Agency ("LEA"). In this arrangement, AppleTree is the CMO for preschool grades Pre-K3 and Pre-K4 while another third-party CMO manages grades Kindergarten and higher.

Each of these models is described in greater detail below.

- *AppleTree Early Learning Public Charter School* (*AELPCS):* AppleTree Early Learning Public Charter School was authorized and opened its first site in 2005 and currently manages six standalone charter preschools. The District of Columbia funds preschool grades through the same Uniform per Student Funding Formula as K-12. All AppleTree Early Learning Public Charter Schools are in good standing with the DC PCSB; none has ever received any sort of warning, suspension or any other such caution. Indeed, as evidenced by the letter of support from the executive director of the DC PCSB (Appendix C), AppleTree's schools are regarded as models of excellence.

AELPCS was accredited by AdvancED, an international accrediting institution, in 2012 and re-accredited in 2017. AdvanceEd's report praises the comprehensive instructional model that AppleTree developed, continuously improved upon through its growth, and continues to use at all schools.

- *AppleTree@ schools:* With funding from local philanthropy, planning support from McKinsey & Company and the encouragement of the DC PCSB, AppleTree in 2012 created a second charter school model. In this new model – called AppleTree@ – AppleTree acts as a co-CMO, responsible for operating effective preschool grades under contract to LEAs. For example, the Rocketship Rise charter school in Ward 8 is managed by two CMOs. AppleTree manages the Pre-K3 and Pre-K4 grades while Rocketship (a California-based CMO) manages grades K-5. Both CMOs report to the Board of Rocketship Rise.

  This model provides three benefits to economically disadvantaged families: First, they experience a high-performing early-learning program. Second, because students in the early-education classrooms are enrolled in the Rocketship LEA, they transition from Pre-K4 to Kindergarten without entering a lottery. Third, the co-CMOs vertically align curriculum so that students get the benefit of powerful teaching and learning as they move seamlessly from Pre-K4 to K to Grade Five all in the same facility.

  AppleTree now operates five AppleTree@ schools with four co-CMOs. Classrooms managed by AppleTree under the AppleTree@ model achieve superior results and are well-regarded by the DC PCSB. The LEAs that AppleTree serves are all in good standing with the exception of the Democracy Prep LEA, which ended its management agreement with the Democracy Prep CMO in September. AppleTree expects to remain as CMO for grades Pre-K3 and Pre-K4 until a new co-CMO is approved.

The table below shows the names and addresses of the 11 AppleTree-managed charter preschools, the years they opened, their size, and the LEA. The authorizer for all of the schools is the DC Public Charter School Board (the District of Columbia's sole authorizer). Of note, two of these schools (Perry Street and Democracy Prep) were academically troubled situations where AppleTree was brought in by the DC PCSB to help effectuate a turnaround.

AppleTree: Existing Schools					
Name	Address	Year Opened	Class-rooms	Enrolled Students	LEA Name
AppleTree Southwest PCS	801 7th Street SW	2004	5	97	AELPCS
AppleTree Columbia Heights PCS	2750 14th Street NW	2008	8	154	AELPCS
AppleTree Oklahoma Ave PCS	330 21st St NE	2010	8	151	AELPCS
AppleTree Douglas Knoll PCS	2017 Savannah Terrace SE	2011	4	90	AELPCS
AppleTree Lincoln Park PCS	138 12th St NE	2011	3	60	AELPCS
AppleTree Parklands PCS	1801 Mississippi Avenue SE	2011	4	92	AELPCS
AppleTree @ Democracy Prep PCS	3100 MLK, Jr. Ave. SE	2014	8	114	Democracy Prep PCS
AppleTree @ Perry Street Preparatory PCS	1800 Perry St., NE	2015	4	88	Perry Strret PrepPCS
AppleTree @ Achievement Prep PCS	908 Wahler Place SE	2016	7	131	Achievement Prep PCS
AppleTree @ Rocketship Rise Academy PCS	2335 Raynolds Pl SE	2016	8	161	Rocketship PCS
AppleTree @ Rocketship Legacy Prep PCS	4250 Massachusetts Ave SE	2018	8	159	Rocketship PCS
Totals/Averages			67	1297	

C. Enrollment.

All public charter schools in Washington, DC, are open to any District of Columbia resident. Most preschool children attend preschools near their homes or where their parents work. Therefore, to ensure that disadvantaged students have access to its high-quality early-learning program, AppleTree consciously located its schools in the areas of greatest need. For example, AppleTree has developed new preschools through partnerships with developers of low-income and affordable housing in Ward 1 (which has a high Latino population) and Ward 8. In addition, AppleTree has developed its co-CMO AppleTree@ Schools mostly in Wards 7 and 8 where most of Washington, DC's economically disadvantaged families live.

All eligible students apply to AppleTree preschools through the District of Columbia's common lottery using My School DC, the web-based portal through which DC parents enter the

lottery for schools for their children. My School DC is a single, random lottery for District of Columbia public and public charter schools. Student-school matches are based on the number of available spaces at each school. If there are more students than spaces available, students are considered according to lottery preference group (sibling, transfer or other lottery preferences) and how each student ranked his or her school choices; and each student's random lottery number. My School DC operates within the Office of the State Superintendent of Education. It is governed by the Common Lottery Board with representation from both the DC Public Schools and participating public charter schools (almost all participate). The Deputy Mayor for Education chairs the board.

AppleTree does not (and, under the law, cannot) grant spaces to children based on any other preferences aside from the ones permitted by My Schools DC (such as sibling preference).

Although AppleTree has not closed a school in the past, and does not anticipate doing so, in case such an event occurred AppleTree would work with My School DC staff to ensure that parents were made aware of the closure (enrollment for any school year kicks off in December of the previous year) and informed of high-quality options available to them.

D. Compliance with ESEA Definition of Charter School.

All of AppleTree's 11 schools meet the ESEA definition of a charter school, as documented by the letter of support from the executive director of the DC Public Charter School Board, Scott Pearson (Appendix C and F). Each school has its own principal and own instructional staff, its own physically separate building, and separate enrollment/admissions processes. Each school is separately listed on My School DC.

AppleTree manages schools for a total of five LEAs:

- Six of the schools are managed for AppleTree Early Learning PCS. Under the District of Columbia School Reform Act, LEAs may operate multiple schools under the same

charter. AppleTree Early Learning PCS is permitted (with the approval of its authorizer) to operate up to three more schools, providing room for growth.

● The five AppleTree@ schools hold management agreements with four different LEAs: Democracy Prep PCS, Perry Street Prep PCS, Achievement Prep PCS, and Rocketship PCS (two schools).

E. <u>Transportation</u>

The District of Columbia does not provide school busing services to any public schools, be they traditional district schools or charter schools. Children are expected to get to school using public transit, which includes the Metro subway and buses. However, given the age of AppleTree's young students, AppleTree's enrollment usually comes from the neighborhoods in which schools are located or where parents work, with most children walking to school along with their caregivers. AppleTree's growth has concentrated on neighborhoods of high need, which tends to ensure that the school's population reflects those neighborhoods.

In recent years and with rising gentrification, the District of Columbia's homeless population has spiked. Homeless children are eligible to apply to any public school. In particular, AppleTree's Douglas Knoll school has a high proportion of homeless families who receive McKinney-Vento tokens to subsidize transportation. AppleTree supports families who need transportation assistance, as flagged by tardiness and attendance rates, through multiple avenues, including subsidizing their transportation if needed.

F. Attendance and Re-Enrollment

The table below shows attendance and re-enrollment for each of AppleTree's schools.

Rocketship Legacy PCS, which only fully opened in 2018, is too recent to have meaningful data.

AppleTree: Attendance and Student Retention							
Name	Year Opened	Class-rooms	Enrolled Students	LEA Name	Authorizer	Attendance	Re-enrollment
AppleTree Southwest PCS	2004	5	97	AELPCS	DC PCSB	87.9%	67.2%
AppleTree Columbia Heights PCS	2008	8	154	AELPCS	DC PCSB	88.6%	68.8%
AppleTree Oklahoma Ave PCS	2010	8	151	AELPCS	DC PCSB	85.9%	68.1%
AppleTree Douglas Knoll PCS	2011	4	90	AELPCS	DC PCSB	84.9%	60.9%
AppleTree Lincoln Park PCS	2011	3	60	AELPCS	DC PCSB	92.4%	70.4%
AppleTree Parklands PCS	2011	4	92	AELPCS	DC PCSB	83.9%	57.8%
AppleTree @ Democracy Prep PCS	2014	8	114	Democracy Prep PCS	DC PCSB	90.2%	64.7%
AppleTree @ Perry Street Preparatory PCS	2015	4	90	Perry Strret PrepPCS	DC PCSB	91.4%	88.5%
AppleTree @ Achievement Prep PCS	2016	7	139	Achievement Prep PCS	DC PCSB	85.7%	68.4%
AppleTree @ Rocketship Rise Academy PCS	2016	8	161	Rocketship PCS	DC PCSB	83.3%	76.2%
AppleTree @ Rocketship Legacy Prep PCS	2018	8	159	Rocketship PCS	DC PCSB	NA	NA

Attendance rates were above 80% at all schools. Re-enrollment varied by site, although there are

challenges associated with these data:

- First, the District of Columbia has no compulsory attendance requirement for Pre-K3 or Pre-K4 grades. Parents can remove children from school for family vacations or other reason without consequence. In cases where an individual child's attendance is poor, AppleTree supports families to ensure their children attend school regularly, as children with strong attendance are better positioned to achieve kindergarten readiness.

- Second, re-enrollment figures only apply to preschoolers who are moving from Pre-K3 to Pre-K4. In a city with a shortage of quality school choices, parents may move children to another school's Pre-K4 program under the sibling preference if older siblings are accepted into other schools. Additionally, parents of children at AppleTree's Pre-K3- and Pre-K4-only schools may enter the lottery again in hopes of securing a spot at a different high-quality school that also goes beyond Pre-K4.

G. Individual School Results.

The DC PCSB carefully measures the performance of all charter schools in Washington, DC, issuing annual "School Quality Reports" that provide parents and others with a wealth of information. The School Quality Reports in addition rank charter schools in one of three tiers: Tier 1, for highest performing; Tier 2 for schools of good quality; and Tier 3 for schools that may be facing difficulty. All of the 2018 School Quality Reports for AppleTree's schools can be found in Appendix G. Overall, they show the following results:

- Four of the six AELPCS schools were ranked Tier 1. The other two AELPCS schools were ranked high Tier 2.

- Of the five AppleTree@ schools:

  o Two (the Rocketship schools) were ranked Tier 1.

  o The Perry Street school was ranked Tier 2, a significant upgrade from its previous Tier 3 status. That improvement is significant because AppleTree was brought in to manage the early-education classrooms as part of a turnaround strategy proposed by the DC PCSB and the upgrade is connected to AppleTree's success.

  o Both AppleTree@ schools at Achievement Prep and Democracy Prep are ranked Tier 3. However, internal quality measurements show that the AppleTree-managed classrooms would – if judged separately from the rest of the school – rank Tier 1. Unfortunately, the overall school average is being brought down by the performance of the CMOs managing the elementary and middle school classrooms.

H. School Management and Financials

School Management. Each of the 11 schools reports upwards to AppleTree's home office, headed by Jamie Miles, AppleTree's Chief of Schools. AppleTree's home office is organized to provide effective support for all aspects of school operations. The organizational chart is shown below.
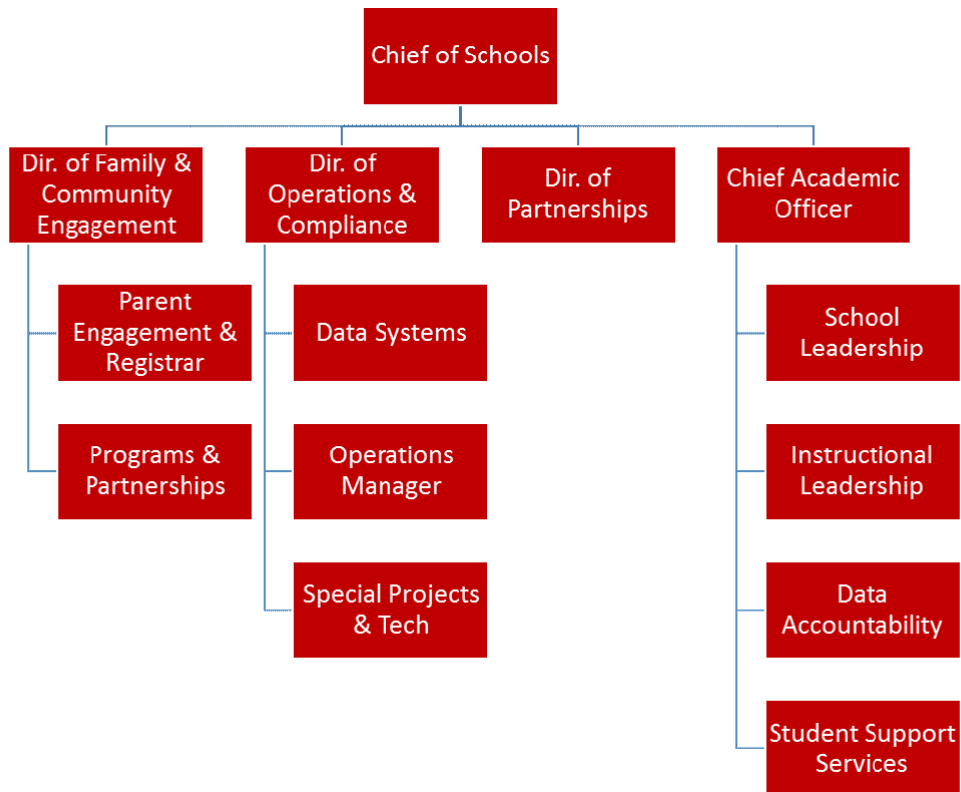
As AppleTree continues to grow (as contemplated under this Replication Grant request), this home office structure, with additional capacity provided by new staff, will continue to manage growth with quality.

Financial Management. AppleTree manages its schools prudently and effectively. In SY 2017-2018 (as shown in the table below), the 11 schools generated $25 million in revenues. All

Name	Class-rooms	Revenues	Operating Expenses	Occupancy Cost	Surplus	Home Office	Net	ADD: Depreciation	SUBTRACT: Principal on Debt	Cash Flow
AppleTree@ Achievement Prep	8	$ 2,451,824	$ 1,965,332	$ -	$ 486,492	$ 153,945	$ 332,547	$ 1,021	$ -	$ 333,568
AppleTree@ Democracy Prep	4	$ 1,422,955	$ 1,196,591	$ -	$ 226,364	$ 93,729	$ 132,635	$ -	$ -	$ 132,635
AppleTree@ Perry Street Prep	4	$ 1,441,277	$ 1,138,284	$ -	$ 302,992	$ 89,162	$ 213,830	$ 2,386	$ -	$ 216,216
AppleTree@ Rocketship Legacy	8	$ 2,568,787	$ 2,328,982	$ -	$ 239,805	$ 182,430	$ 57,375	$ -	$ -	$ 57,375
AppleTree@ Rocketship Rise	8	$ 2,815,711	$ 2,104,264	$ -	$ 711,447	$ 164,827	$ 546,620	$ 638	$ -	$ 547,258
AppleTree Columbia Heights	8	$ 3,577,110	$ 3,058,700	$ 512,777	$ 5,633	$ 239,589	$ (233,956)	$ 89,578	$ -	$ (144,378)
AppleTree Douglas Knoll	4	$ 2,038,206	$ 1,789,056	$ -	$ 249,150	$ 140,137	$ 109,013	$ 50,319	$ 109,896	$ 49,436
AppleTree Lincoln Park	3	$ 1,318,621	$ 1,226,830	$ 9,677	$ 82,114	$ 96,098	$ (13,984)	$ 33,177	$ 253,896	$ (234,703)
AppleTree Oklahoma Ave	8	$ 3,176,519	$ 2,644,891	$ 482,399	$ 49,229	$ 207,175	$ (157,946)	$ 78,519	$ -	$ (79,427)
AppleTree Parklands	4	$ 2,030,390	$ 1,598,139	$ 274,365	$ 157,886	$ 125,183	$ 32,703	$ 49,766	$ -	$ 82,469
AppleTree Southwest	5	$ 2,390,480	$ 1,571,759	$ 19,495	$ 799,226	$ 123,116	$ 676,110	$ 59,719	$ -	$ 735,829
Totals	**64**	**$ 25,231,880**	**$ 20,622,829**	**$ 1,298,713**	**$ 3,310,339**	**$ 1,615,391**	**$ 1,694,948**	**$ 365,123**	**$ 363,792**	**$ 1,696,279**

AppleTree Schools: Financial Performance, SY 2017-2018

of them generated a surplus after operating expenses and occupancy costs. As a whole. AppleTree's schools showed a net of $1.7 million (after home office costs) as well as positive cash flow of $1.7 million. Positive cash flow is used to build up reserves, fund the continual improvement of AppleTree's *Every Child Ready™* instructional model (which is used in all of AppleTree's schools; see Section J beginning on page 16 for more about the instructional model), and support other AppleTree programs (such as a scholarship program for teachers and instructional leaders obtaining advanced degrees).

A few clarifying notes about the financials:

- The figures for AppleTree@ Rocketship Legacy Prep are budgeted for SY 2018-2019. Legacy was not fully opened in its own space in SY 2017-2018.

- AppleTree@ schools show no occupancy costs because as part of AppleTree's management agreement with the LEAs, the LEA keeps the facilities portion of the capitation payments made to it by the District of Columbia.

- The Douglas Knoll school shows no occupancy cost because it owns its building, purchased with zero interest debt. It does pay principal on that debt, however, as can be seen in the "Principal on Debt" column.

- "Home Office" costs are general and administrative expenses allocated to the individual schools based on enrollment.

I. Instructional Model: *Every Child Ready*™

All of AppleTree's existing schools use the *Every Child Ready*™ instructional model ("ECR"). All of the new, replicated schools will use ECR as well.

Historically, there has been a significant lack of high-quality curricula, teacher development, and measurement tools in early education. Those shortfalls drove AppleTree Institute to develop *Every Child Ready*™, its proprietary, comprehensive instructional model for preschool children. ECR's development was supported by several grants from the US Department of Education, including Early Reading First grants and an Investing in Innovation ("i3") development grant, as well as philanthropic funding. ECR has proven an enormous success and ECR content is used not only in AppleTree's own schools but is also used to educate an additional 700 children in 11 non-AppleTree preschools in Washington, DC, and New York City. ECR operates under a continuous improvement cycle, overseen by AppleTree Institute, keeping it on the cutting edge of research and best practices.

Key elements of *Every Child Ready*™. ECR consists of three pillars: What to teach, how to teach, and how to measure success. The integration of these three pillars is a critical underpinning to *Every Child Ready's*™ success, providing teachers, families, and instructional leaders with real-time information to support learning in the classroom and home, targeting the most at-risk children. ECR uses a Response-to-Intervention (RTI) framework, working to ensure success for all students.

- **What to Teach: *Every Child Ready*™ Content.** The *Every Child Ready*™ content driver is an engaging evidence- and standards-based curricular program that balances independent, play-based learning with whole- and small-group instruction. Children have

the opportunity to engage with high-quality literature in an enriching, hands-on, contextual-based classroom environment. The elements of the *Every Child Ready™* content driver include:

o *Detailed, scripted curriculum* – Used for ten-month or year-round programs, each of the twelve thematic units was designed to utilize engaging children's literature to answer essential concept questions and target vocabulary while differentiating for three- and four-year-old children. The thematic units provide content across a variety of early-learning domains, including social-emotional learning, language, literacy, math, science, social studies physical development and creative arts. The thematic curriculum is accompanied by tiered small-group plans children receive based on their progress monitoring and formative assessments. Scripting is meant to support novice teachers as a form of professional development. Teachers are encouraged to make ECR their own and adapt content to meet the needs of their students.

o *Family engagement* – Includes easy-to-use brochures that accompany numerous *Every Child Ready™* books, which schools can send out to families, in print or via email, for reading a specific title with their child, as well as a series of school-based family activity packages for how to engage families at a school throughout the year. ECR also includes weekly home-based activities for caregivers and children to complete together. These activities are designed to engage adults in the content that their children are learning in school. Multiple activities are available for each ECR unit.

o *Diverse and engaging children's literature* – ECR includes its own line of culturally and racially diverse books, developed because of a notable absence of children of color in available literature as well as a dearth of STEM books for preschoolers

(Horning, 2016). Each book focuses on a concept, such as space travel, or on a performance indicator, such as conflict resolution, and provides target vocabulary, illustrative examples, and rich artwork.

- **How to Teach: *Every Child Ready™* Professional Learning.** The *Every Child Ready™* professional learning driver employs several tightly coupled elements to engage teachers with a range of instructional and classroom management competencies. The elements include:

  o *Professional learning workshops* – Targeted site-based workshops led by trained school-based instructional leaders throughout the year and multi-day summer training available to implementers.

  o *Differentiated coaching* – Systematic differentiated coaching cycle that includes observation, reflection, modeling, goal-setting, and follow up. Teachers are placed on coaching tracks based on teacher experience, classroom quality, and child-level data.

  o *Self-reflection and community of practice* – Biannual instructional rounds for teachers to observe other programs with classrooms matched based on data. Support for monthly professional learning communities.

  o *E-learning courseware* - Online courses and modules designed to onboard new *Every Child Ready™* users (such as teachers and school leaders) and increase the quality and capacity of existing users through structured courses or flexible learning pathways focused on *Every Child Ready™* implementation and best practices in the field of early education. Teachers and instructional leaders may participate individually, as groups, or side-by-side with a coach.

  Every Child Ready™ professional learning utilizes a train-the-trainer model for instructional leaders. The goal of this model is to support leaders in building expertise in

the *Every Child Ready™* model in order to build capacity and sustainability at the school level. The professional learning driver uses information and resources from the content and assessment programs to ensure that training workshops and coaching priorities are aligned with student achievement and classroom quality data. Regardless of the mode of delivery, each aspect of professional learning is carefully designed using both real-time and historical data to ensure that children are receiving high-quality instruction throughout the year, particularly in classrooms with new or inexperienced teachers, who may need to the most support.

- **How to Measure Success:** *Every Child Ready™* **Assessments.** The *Every Child Ready™* assessment driver employs a multi-tiered measurement approach to student achievement, social-emotional development, and classroom quality. There are four primary elements in the assessment program, developed independently of the content to ensure alignment to current research and learning standards:

  o *Progress Monitoring Assessments* – Direct student assessment using ECR: Math, ECR: Language and Literacy, and ECR: Letters and Writing, with reporting provided to teachers and instructional leaders during each window for real-time decision making for differentiated instruction.

  o *Flexible Small Group Assessments (FSG)* – Intermittent assessments aligned directly with specific performance indicators that demonstrate student mastery at each age, which include foundations of best practices of curriculum-based assessment. FSG assessments serve as a key driver for differentiated instruction and student-paced learning.

  o *Social-Emotional Monitoring* – Children's social-emotional development is measured via student behavior observations and the Positive Behavior Rating Scale (PBRS).

Created by AppleTree, PBRS is a strength-based, 10-item rating scale completed quarterly by the student's teacher.

- *Classroom Quality Observations* – Ongoing classroom quality observations, conducted using *Every Child Ready™* tools, help to ensure quality teacher-child interactions and high-quality teaching experiences. These tools include the Quality Indicators, Tier 1 Teacher Observations, and the Attribute Checklist. Data are also collected using the Classroom Assessment Scoring System (CLASS; Pianta, La Paro, & Hamre, 2008). Data from observations are linked to actionable next steps for teachers and play a critical role in the coaching cycle.

All of the assessment tools are aligned to a multi-tiered Response-to-Intervention approach intended to deploy and guide the *Every Child Ready™* coaching and content drivers as early prevention and intensive intervention before children enter Kindergarten. In this way, the assessment program ties together all programs, keeping not only teachers and leaders informed of their own successes and areas of growth, but ensuring that the *Every Child Ready™* model is responsive to the needs of all early learners.

Implementation of *Every Child Ready™*. Critical to ECR's success has been AppleTree's approach to implementation: A virtuous circle of research-to-practice-to-research.

ECR embodies the best thinking drawn from the early-education field. However, it has also been tested in real-world circumstances, directly educating thousands of children. The results of this real-world application have then been used to inform a series of modifications and improvements to ECR, all of which are intended to make it better from the points-of-view of teachers, caregivers and children.

Effectiveness of *Every Child Ready™*. To date, ECR has typically been implemented in classrooms located in communities that have several indicators of high need such as high

poverty, demographic characteristics (e.g., educational levels, minority groups), and family stability (e.g., homelessness, single parent households). As a result, most children arrive at AppleTree performing well behind national norms. However, ECR is effective at improving children's outcomes across multiple early-learning domains.
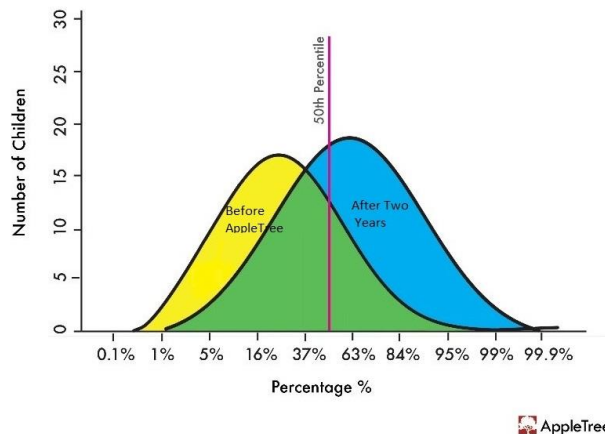
As part of its effort to personalize education to each child's unique needs, *Every Child Ready™* provides for five formal assessments each year: pre- and post-school year, as well as three times within the school year. Using these data, AppleTree can also assess whether ECR is proving successful. Ongoing analysis of available data indicate more positive results for those using ECR compared to those who do not (Carlson, Curby, Brown, & Truong, 2017a; Carlson, Curby, Brown, Trygstad, & Truong, 2017b). Students who participated in the ECR instructional model improved at a greater rate than their non-ECR peers in the areas of math (1.5 months higher over the course of the year), literacy (1.1 months higher over the course of the year), uppercase letter identification (.8 months higher over the course of the year), and name writing (2 months higher over the course of the year) (Carlson et al., 2017a). In addition to improvements in student outcomes, ECR shows clear benefits for teachers. Teachers in ECR classrooms outperformed non-ECR classrooms in the CLASS Instructional Support domain, suggesting ECR better equips teachers to encourage higher order thinking skills (Carlson et al., 2017b). In addition to comparison group studies, AppleTree Institute uses internal measurement to continuously monitor the impact of the ECR instructional model. As can be seen in the two charts on the next page, AppleTree's assessments of children under its care demonstrate clearly

that they achieve significant progress from baseline (the beginning of the year) to outcome (the end of the year) – and have done so for the last five years. In both charts, children, on average,

Student Gains in Language & Literacy

Student Gains in Math
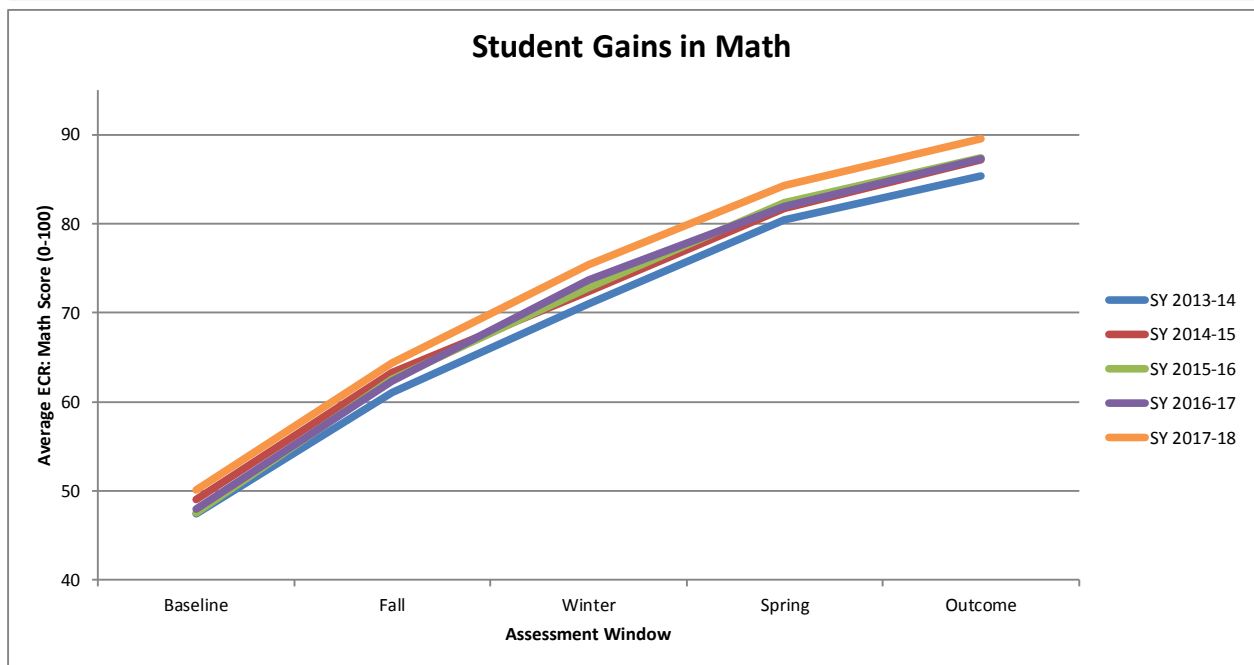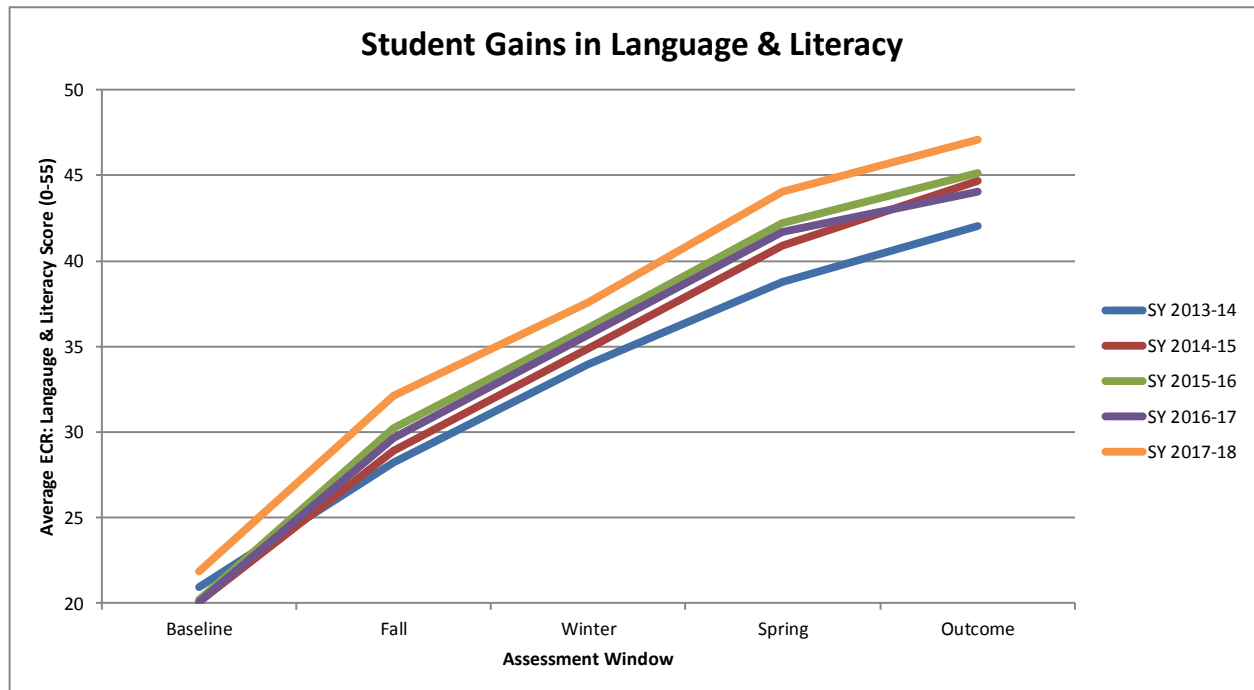
make statistically significant growth over the course of the year in both language and literacy and math. Of note, this growth trajectory has increased slightly each year, with children ending the year with higher average performance each subsequent year.

Norm-referenced studies. Under its Investing in Innovation grant, AppleTree collected multiple years of norm-referenced, standardized assessment data on students. Children that arrive at AppleTree schools are oftentimes below the 50th percentile of national norm-referenced tests, as demonstrated by the yellow bell curve in the graph at the right, where the majority of children started their Pre-K3 year below the 50th percentile on the TOPEL measure of definitional

vocabulary. After two years of an AppleTree education, the curve shifts to the right, with the majority of children performing above the 50th percentile – the national norm – at the end of their Pre-K4 year (the blue curve).

J. Measures of Success

By a host of metrics, AppleTree is a high-quality operator of schools:

● **Strong board.** AppleTree has a strong, stable, and independent board comprised of an economically and racially diverse set of community and business leaders (including those from banking, finance, management, philanthropy, education and advocacy) as well as parents and former parents whose children attended AppleTree charter preschools.

● **Financial stability**. The two related AppleTree organizations – AppleTree Institute and AppleTree Early Learning PCS – are both subject to annual audits (see Appendix H). As shown in the table on the next page, each organization has consistently generated annual surpluses. Each has also received a clean opinion from its auditors. The combined net worth of AppleTree (as of June 30, 2018) is nearly $11.2 million, each organization maintains a healthy cash balance, and each has been highly rated in the STARS report.

APPLETREE (FYE 6/30)	Actual Audited							
	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018
AELPCS								
Revenues	6,982,093	11,198,735	12,008,981	13,032,827	13,214,616	13,574,345	12,970,221	14,531,325
Expenses	5,750,790	10,892,540	11,404,832	12,030,460	12,229,546	12,835,494	12,679,049	13,700,658
Surplus	**1,231,303**	**306,195**	**604,149**	**1,002,367**	**985,070**	**738,851**	**291,172**	**830,667**
AppleTree Institute								
Revenues	4,095,145	4,312,457	6,428,465	4,842,191	6,499,019	7,703,084	12,029,268	13,333,772
Expenses	3,865,354	4,033,411	6,225,765	4,428,810	6,158,116	7,090,559	11,323,097	12,900,941
Surplus	**229,791**	**279,046**	**202,700**	**413,381**	**340,903**	**612,525**	**706,171**	**432,831**
APPLETREE CONSOLIDATED								
Revenues	10,486,207	13,962,429	16,787,965	16,195,837	18,228,654	19,984,151	23,706,212	26,516,224
Expenses	9,025,113	13,377,188	15,981,116	14,780,089	16,902,681	18,632,775	22,708,869	25,252,726
Surplus	**1,461,094**	**585,241**	**806,849**	**1,415,748**	**1,325,973**	**1,351,376**	**997,343**	**1,263,498**
Net Assets	*3,412,811*	*3,998,052*	*4,804,901*	*6,220,649*	*7,546,622*	*8,897,998*	*9,895,341*	*11,158,839*

- **Highly ranked.** Four of AELPCS's six schools were ranked Tier 1 – the highest ranking available – by DC's Public Charter School Board for the just-ended SY 2017-2018. The other two schools performed well and were ranked high Tier 2. In addition, the AppleTree@ schools are high-performing and contribute to the overall Performance Management Framework rankings of the LEAs for whom AppleTree is a co-CMO. Both of the Rocketship schools were ranked Tier 1 and the DC PCSB has acknowledged that AppleTree has played a critical role in the turnaround of one formerly troubled school, Perry Street PCS. (Indeed, that school's turnaround has been so marked that the DC PCSB just renewed Perry Street's charter.) On average, 83% of children met end-of-the-year performance goals in math, language and literacy, and social-emotional development across all AppleTree schools.

- **Good standing.** AppleTree has been in good standing with DC PCSB since its inception – for 13½ years – with no outstanding conditions, warnings or revocations. AELPCS is on-track for a 15-year charter continuance next year.

- **Management of growth.** AppleTree doubled in size over the last five years and did so while actually improving quality outcomes as measured by the DC PCSB's Performance

Management Framework. That growth was documented by Venture Philanthropy

Partners in a 2017 Case Study (see Appendix I).

- **Widespread support from funders**. In fall 2018 AppleTree was awarded a $118,000

  grant by the Trust for Learning to work with Bellwether Partners to convene early

  childhood charter school operators, researchers and thought leaders to design and

  recommend improvements to the DC Public Charter School Board's Performance

  Management Framework in 2018. Other key private-sector funders include Venture

  Philanthropy Partners, New Schools Venture Fund, The Boeing Company, Annie E.

  Casey Foundation, the J. Willard and Alice S. Marriott Foundation and EdForward. In

  addition, AppleTree has won two Early Reading First grants (in 2005 and 2008) and an

  Investing in Innovation grant in 2010.

- **Awards**.

  o AppleTree was invited to lead the pre-conference on charter preschools at the 2016

    National Alliance for Public Charter Schools Conference in Washington, DC.

  o AppleTree was awarded the Parent PowerED School Partner Award for unfaltering

    dedication to family engagement by Parents Amplifying Voices in Education 2018.

  o AppleTree's founder and CEO, Jack McCarthy, was inducted into the DC Charter

    Schools Hall of Fame in 2018 and was appointed by three consecutive Mayors to

    serve on DC's State Early Childhood Development Coordinating Council.

2. ASSISTING EDUCATIONALLY DISADVANTAGED STUDENTS

A. The Need for Early Education

AppleTree's mission, core values and evidence-based educational program (*Every Child Ready™*) are all focused on closing achievement gaps in disadvantaged children so that they enter Kindergarten ready to thrive. Nobel Prize winner James Heckman of the University of Chicago identified evidence-based early childhood interventions as having the greatest impact on learning (Heckman, 2006; Heckman, 2011). The cost-benefit estimates range from $7 to $17 per dollar invested in increasing access to evidence-based programs.

The Center for American Progress published a study in 2018 that showed that over the past 15 years, the share of 4-year-olds who are U.S. residents attending public preschool has more than doubled to 33 percent (Malik, 2018). A growing number of cities and states have dedicated resources to establish or expand preschool programs, with policymakers frequently citing the impact that preschool participation has on school readiness.

Preschool attendance has been shown to improve children's academic and socio-emotional skills, preparing them for Kindergarten and beyond (Taylor, Gibbs, & Slate, 2000). Research also shows that effective preschool programs benefit children from disadvantaged families the most, providing those children with a nurturing environment for healthy development (Bassok, 2010; Tucker-Drob, 2012). Moreover, along with these important educational benefits, public preschools also allow some parents to re-enter the labor force or increase the number of hours they work, providing a decided boon to families' economic well-being. That has been the experience in Washington, DC where parents – specifically mothers – have returned to or entered the workforce in significant numbers since the city expanded to universal preschool (Malik, 2018).

B. AppleTree's Focus on Educationally Disadvantaged Students.

As can be seen from the table below, the 11 AppleTree schools target traditionally

underserved students. On average, 90 percent are from economically disadvantaged

AppleTree: Existing Schools								
Name	Year Opened	Class-rooms	Enrolled Students	LEA Name	% Econ Disadvtgd	At Risk %	% ELL	SPED %
AppleTree Southwest PCS	2004	5	97	AELPCS	70.4%	46.3%	6.5%	1.9%
AppleTree Columbia Heights PCS	2008	8	154	AELPCS	59.3%	37.0%	28.4%	6.2%
AppleTree Oklahoma Ave PCS	2010	8	151	AELPCS	100.0%	49.3%	4.9%	5.6%
AppleTree Douglas Knoll PCS	2011	4	90	AELPCS	100.0%	70.2%	1.7%	4.4%
AppleTree Lincoln Park PCS	2011	3	60	AELPCS	38.3%	23.3%	18.3%	1.7%
AppleTree Parklands PCS	2011	4	92	AELPCS	100.0%	60.0%	0.0%	2.9%
AppleTree @ Democracy Prep PCS	2014	8	114	Democracy Prep PCS	100.0%	85.9%	0.0%	4.3%
AppleTree @ Perry Street Preparatory PCS	2015	4	88	Perry Strret PrepPCS	100.0%	43.8%	9.7%	3.3%
AppleTree @ Achievement Prep PCS	2016	7	131	Achievement Prep PCS	100.0%	69.0%	0.6%	7.1%
AppleTree @ Rocketship Rise Academy PCS	2016	8	161	Rocketship PCS	100.0%	71.5%	1.7%	3.2%
AppleTree @ Rocketship Legacy Prep PCS	2018	8	159	Rocketship PCS	100.0%	63.7%	1.9%	3.8%
Totals/Averages		**67**	**1297**		**90.1%**	**58.0%**	**6.6%**	**4.3%**

circumstances and 58 percent of AppleTree's students are regarded as at-risk.

AppleTree's schools are sought after by parents; school surveys consistently show high

levels of satisfaction. And AppleTree's schools excel in data-driven, external measurements,

with strong results for a traditionally underserved and at-risk population. In addition, AppleTree

meets the needs of any ELL students or those with special needs and also fully accommodates

the needs of any disabled students (all of its schools are accessible).

A few examples demonstrate AppleTree's commitment to serving those who are most

disadvantaged:

- **Social Emotional Supports.** AppleTree continues to see a need for greater social

  emotional support for its students and access to more wrap-around services for its

  families. In response to this need, in SY 2018-2019 AppleTree expanded its staffing from

  six to nine clinicians (licensed social workers or counselors). The ratio of clinician to

  students moved from 1:195 to 1:154.

- **Homeless Students.** AppleTree serves 192 students whose families have self-identified as homeless, per the McKinney-Vento Act. Young children who face the vulnerabilities associated with homelessness often require additional emotional support. As AppleTree's student population of homeless students has increased, so has the team of social workers to support them. All AppleTree schools have a social worker dedicated to providing social-emotional supports to all students. These supports include small group work focused on specific social skills, one-on-one therapy, and in-classroom behavior modeling. The social work team receives ongoing training in trauma-informed approaches to best support students and families.

- **English Language Learners**. English Language Learners ("ELs") are initially identified as being a possible EL during the enrollment process in the Home Language Survey. If the family indicates that the child speaks or is exposed to a language other than English, a teacher will administer the Pre-IPT English Language Proficiency Assessment (Preschool IDEA Oral Language Proficiency Test, Ballard & Tighe). The Pre-IPT assigns students one of three English Language Proficiency levels: Non-English Speaking ("NES"), Limited-English Speaking ("LES"), Fluent-English Speaking ("FES"). NES and LES students are considered to be EL students, whereas FES students are considered to be English Proficient. NES and LES students are provided with additional instructional support, whereas FES students are not. FES students' language acquisition progress is monitored for two years to ensure that they continue making adequate gains.

     Within two weeks of assessment, parents are notified in writing of their child's outcome scores and the instructional support their child will receive as a result of their language proficiency. The notification includes a description of the assessment, possible instructional supports, and how language acquisition progress will be monitored.

Notifications are translated into the home language of the family when necessary. Parents

have the right to refuse instructional support provided for their children, regardless of

their language acquisition status.

ELs identified as NES or LES participate in Tier 2 interventions three times per week

to support language acquisition. These interventions are provided by classroom teachers,

the Language Acquisition Manager and/or EL teacher. Students' data are monitored to

identify if they may be in need of additional intervention supports. Progress monitoring

data is used along with weekly flexible small group data and any other data that directly

impacts the students, such as attendance.

Individualized student goals are created using the WIDA Can Do Descriptors and

early childhood standards. Quarterly progress reports provide families with information

about their student's language development and acquisition, as well as comments from

teachers and suggested supports to consider doing at home.

All communication to families is translated into their native language, including

parent handbooks, newsletters, and more.

- **Special-Education Program.** AppleTree is currently serving 53 students with Individual

  Education Plans ("IEP") at all of its schools. The 53 students who make up the AppleTree

  special-education population fall in the following classification categories: Speech and

  Language Impairment, Developmental Delay, Autism, Other Health Impairment, Visual

  Impairment. AppleTree staff includes special-education teachers and a special-education

  manager to ensure children's IEPs are followed.

  During the enrollment process, parents are asked to share if their child has an IEP

  and/or a 504 plan or any other necessary supports. If a plan is in place from another

  school or agency, AppleTree's special-education team will immediately begin to plan for

the necessary supports. Because the lottery happens in the spring, the needs of the students drive hiring for the next school year. AppleTree currently employs a comprehensive student support team consisting of special-education coordinators, special-education teachers, a positive behavior manager, speech and language pathologists, and social workers. Contracts with specialized providers for any other supports are immediately established once the students' IEP is in place.

Response to Intervention is at the core of AppleTree's instructional program. Students are assessed formally five times per year on a range of language, literacy and math skills. Additionally, students participate in daily small groups in which data is taken to monitor students' learning. Any student who is not making sufficient progress will participate in targeted Tier 2 interventions or Tier 3 interventions, based on multiple data sources. A school-level leadership team meets regularly to identify students for intervention and review the students' progress, make recommendations, and if necessary, make a referral for special education.

Specialized Support Plans ("SSPs") are created for special-education students by the Special-Education Coordinator and shared with general education teachers when a student is found eligible. The SSP includes services that a student receives and how often the service occurs; accommodations and modifications that the teacher should provide the student every day in the classroom; and academic, cognitive, and daily living goals. The SSP will updated weekly based on students' progress toward their goals. Quarterly progress reports towards goals are shared with parents and families.

When replicating schools, AppleTree will ensure that these processes are systematically followed in order to support special education and English Language learners.

C. Overall Effectiveness of AppleTree

AppleTree's own research, based on its 18 years of experience in operating early-education schools, demonstrates the profound impact of early education on children's learning and social-emotional skills. In addition to the strongly-documented effectiveness of the AppleTree's *Every Child Ready™* instructional model, AppleTree schools have demonstrated metrics of success.

As described above, AppleTree schools and the ECR instructional model are highly successful with educationally disadvantaged students. Beyond evidence of overall effectiveness, AppleTree has shown strong outcomes for various sub-groups of students, including English Language learners (ELLs), children from low socioeconomic status backgrounds, and racial and ethnic minorities traditionally underserved by the education system. In the 2017-2018 school year, 83% of AppleTree students met end-of-the-year performance goals for math, language and literacy, and social-emotional development on ECR tools approved for use by the DC PCSB on its Performance Management Framework. Breaking these numbers down, an average of 84.8% of ELL students, 82% of children receiving free or reduced-price lunch, 82% of Black/African-American students, and 86% of Hispanic students met end-of-the year goals in math, language and literacy, and social-emotional development. These ratings indicate a strong readiness for Kindergarten in key language and literacy skills including vocabulary, narrative comprehension, phonological awareness, and expressive language.

D. Proposed New Schools

AppleTree proposes to build on its success at its existing 11 schools – all of which largely target educationally disadvantaged students – by opening nine new schools over the next five years. The table on the next page shows the names of the proposed new schools, their expected address or location, opening dates, the number of classrooms, projected enrollment, LEA and

anticipated demographics. The authorizer for all of these schools will be the DC Public Charter
School Board.

Name	Address	Year to Open	Class-rooms	Enrolled Students	LEA Name	% Econ Disadvtgd	At Risk %	% ELL	SPED %
AppleTree: Projected New Schools									
AppleTree@ LEARN PCS	Bolling Air Force Base	2020	4	84	LEARN PCS	60.0%	58.0%	1.5%	4.5%
AppleTree@ Harmony PCS	62 T St NE	2020	4	84	Harmony PCS	100.0%	63.8%	7.5%	16.0%
AppleTree Missouri Ave	1375 Missouri Ave NW	2020	8	168	AELPCS	100.0%	58.0%	6.5%	10.0%
AppleTree@ Frederick Douglass PCS	Expected to be Ward 4	2021	8	168	Frederick Douglass PCS	100.0%	58.0%	6.5%	10.0%
AppleTree@ Rocketship PCS #3	Expected to be Ward 5	2021	8	168	Rocketship PCS	100.0%	58.0%	6.5%	10.0%
AppleTree@Rocketship PCS #4	Expected to be Ward 4	2022	8	168	Rocketship PCS	100.0%	58.0%	6.5%	10.0%
AppleTree Waterfront	1001 4th St., SW	2022	6	126	AELPCS	70.0%	46.0%	6.5%	2.0%
AppleTree@ Birney PCS	Expected to be Ward 4	2023	8	168	Birney PCS	100.0%	58.0%	6.5%	10.0%
Turnaround school	TBD	2023	8	168	TBD	100.0%	58.0%	6.5%	10.0%
Totals/Averages			**62**	**1302**		**94.5%**	**57.2%**	**6.2%**	**9.3%**

Each of the proposed new schools is described at greater length below:

AppleTree@ LEARN PCS (four classrooms; projected opening August 2020). The DC
government several years ago passed legislation authorizing the first charter school with a
preference for military families. To be located on the Bolling Air Force base, the legislation
envisioned the school would serve a roughly 50/50 mix military and civilian families. A
community group issued an RFP for proposals from CMOs interested in managing the school.
AppleTree joined with LEARN, a Chicago-based CMO, and submitted what turned out to be the
winning bid. The DC PCSB approved the LEARN/AppleTree charter in fall 2018 and AppleTree
expects to open four early-education classrooms (two preschool and two Pre-K4) in August
2020. There is a good chance that in later years the school will grow in size, with AppleTree
managing up to eight classrooms.

AppleTree@ Harmony PCS (four classrooms; projected opening August 2020). Harmony is
an existing school that manages classrooms K-5. Working with the DC PCSB, Harmony has
requested that AppleTree open and manage four early-education classrooms (two Pre-K3 and
two-Pre-K4) beginning in August 2020.

AppleTree Missouri Avenue (eight classrooms; opening August 2020). 1375 Missouri Ave., NW is currently occupied by the Latin American Montessori Bilingual PCS which will be moving to new, larger quarters in August 2020. AppleTree has a tentative agreement to purchase the building and believes it has identified financing to complete the transaction. The building is in good shape, requires minimal renovations, and currently has eight classrooms suitable for early education. This would be a standalone AELPCS school (AELPCS's existing charter already permits the addition of several new schools).

AppleTree@ Frederick Douglass PCS (eight classrooms; projected opening August 2021). A DC-based community group has been working with FOCUS (a pro-charter DC advocacy organization) to prepare a charter application for approval by the DC PCSB. AppleTree will be a co-CMO for the new charter, operating eight classrooms (four Pre-K3 and four Pre-K4).

AppleTree@ Rocketship PCS #3 (eight classrooms; projected opening August 2021). AppleTree presently is a CMO at two existing Rocketship schools, one of which opened in 2016 and the second in 2017. The charter under which the schools operate permit an additional three new schools and Rocketship and AppleTree expect the third school (as yet, unnamed) to open in 2021 with AppleTree managing eight early-education classrooms.

AppleTree@ Rocketship PCS #4 (eight classrooms; projected opening August 2022). This new school would mark AppleTree's fourth collaboration with Rocketship. Rocketship and AppleTree expect this fourth school (as yet, unnamed) to open in 2022 with AppleTree managing eight early-education classrooms. As noted above, Rocketship's existing charter permits it to open three new schools, of which this would be one.

AppleTree Waterfront (six classrooms; projected opening August 2022). AppleTree has a signed MOU with the developer of a multi-use site at 1001 4th St., SW to open a six-classroom early-education school on the first floor. The new school will be AppleTree's second school in

Southwest and will serve a rapidly growing area. The developer, PN Hoffman, expects the building to be completed and ready for occupancy for SY 2022-2013. This would be a standalone AELPCS school (AELPCS's existing charter already permits the addition of several new schools).

AppleTree@ Birney PCS (eight classrooms; projected opening August 2023). As with the Frederick Douglass school, AppleTree is working with a DC-based community group to prepare a charter application for approval by the DC PCSB. AppleTree will be a co-CMO for the new charter, operating eight classrooms (four Pre-K3 and four Pre-K4).

Turnaround Opportunity. In two cases, AppleTree has been brought in by the DC PCSB to manage turnaround (Democracy Prep PCS and Perry Street Prep PCS). As evidenced by the letter of support from the executive director of the DC PCSB (Appendix C), AppleTree is well regarded by the District's chartering authority and is engaged in ongoing discussions about becoming a CMO for one (or likely, more than one) future turnaround situations. AppleTree expects that these new prospects will be identified over the next several years.

E. Logic Model

The logic model that drove the opening of AppleTree's existing schools and that will drive the opening or expansion of its new schools is shown on page 35. AppleTree's logic model has one key objective: Increase the number of high-quality early-learning schools in Washington, DC.

To accomplish this objective, AppleTree's logic model begins with certain key inputs that leads to activities that in turn generate outcomes and impact. In addition, AppleTree's logic model has built into it performance measures to ensure that AppleTree is actually achieving the objectives it has set for itself (the performance measures are addressed at greater length in the section entitled "Evaluation Plan," beginning on page 39).

Project Objective: Increase the number of high-quality early-learning schools in Washington, DC

What do you contribute?	What are you going to do?	What do you want at the end of the day?		How will you know it worked?
Inputs	Activities/Timeline	Outcomes	Impact	Measurement Tool
School Operations: New or expanded high-quality charter preschools	Replicate 9 new AT charter preschools over 5 years, specifically serving disadvantaged children. SY2020: 3 new campuses, SY2021: 2 new campuses, SY2022: 2 new campuses, SY2023: 2 new campuses Effectively plan and implement the opening of 9 new sites, including the RFP process, bids, and procurement of furniture and materials Support all new preschools to implement the AppleTree Playbook and Priority Planning Process and create a high-quality, individualized implementation	All schools successfully open; all operational processes outlined in the Playbook and Priority Planning Documents are fully in place at each replication preschool	Families have access to more high-quality charter preschools, operated through a coordinated system guided by AT's framework, especially in neighborhood with high needs	Implementation/Fidelity records collected by AppleTree Percent student re-enrollment School financial records AppleTree listening tour AppelTree parent and school focus groups AIR independent interviews
High quality early education workforce	All teachers are trained on the elements of a highly effective classroom environment Novice teachers receive structured support and professional development Differentiated coaching provided to all AT teachers	Higher Quality Instruction in PK3 and PK4 classrooms	A more effective and stable teaching workforce across the district	Staff rosters ECR Quality Indicator Observational Tool ECR Attributes Framework Tier-1 Teacher Observations CLASS scores
Evidence-based integrated instructional model	All new schools will implement Every Child Ready, an evidence based instructional model	Positive student learning in Math, Language & Literacy, and Social Emotional Learning	Student achievement on ECR assessments is comparable to existing ECR classrooms within the network, especially for educationally disadvantaged students Achievement gaps will narrow for key student subgroups	ECR Language & Literacy, ECR Math and Positive Behavior Rating Scale assessments Norm referenced assessments from AIR (WJ-LWI, Picture Vocab, AP) Teacher surveys (SSIS and PLBS)

The key elements of the logic model are below.

Input #1: **School Operations: New high-quality early-education charter schools**

- *Activities:*

  o Open nine new schools over five years, specifically serving disadvantaged children.

  o Effectively plan and implement the opening of nine new schools, including the RFP process bids, and procurement of furniture and materials.

  o Support all new preschools to implement the AppleTree Playbook and Priority Planning Process (the Playbook and PPP are described in Section VI.A. on page 51 – "Process for Opening New Schools") and create a high-quality, individualized implementation plan to replicate the AppleTree model.

- *Short-term outcomes*: All schools successfully open; all operational processes outlined in the Playbook and Priority Planning Documents are fully in place at each replication preschool.

- *Impact*: Families have access to more high-quality charter preschools, operated through a coordinated system guided by AppleTree's framework, especially in neighborhoods with high needs.

- *Performance Management*:

  o Performance Targets:

    ✓ Successfully open each replication charter preschool and all operational processes outlined in the Playbook and Priority Planning documents are fully in place at the end of Year 1.

    ✓ Each replication charter preschool will be at 75% capacity at the end of Year 1 and at full capacity at the end of Year 2 for each preschool.

    ✓ Schools will operate within financial budgets without major overages each year.

- ✓ 80% of teachers report satisfaction with instructional environment each year.

- ✓ 80% of families report satisfaction with their experience with the school each year.

  o Measurement Tools: Implementation/Fidelity records collected by AppleTree, percentage of students who re-enroll, school financial records, AppleTree listening tours, AppleTree parent and school focus groups, American Institutes for Research independent interviews (please see Section V – "Evaluation" on page 39 for more on AIR's role).

Input #2: High quality early-education workforce:

- *Activities*: All teachers are trained on the elements of a highly-effective classroom environment, novice teachers receive structured support and professional development, differentiated coaching provided to all AppleTree teachers.

- *Short-term outcomes*: Higher quality instruction in Pre-K3 and Pre-K4 classrooms.

- *Impact*: A more effective and stable teaching workforce across the district.

- *Performance Management*:

  o Performance Targets:

    - ✓ Teacher retention rates are at 80% or higher at each charter preschool, yearly.

    - ✓ 80% of teachers will meet expectations ECR Quality Indicator Observational Tool (a score of 4.5 out of 6 on at least 3 domains).

    - ✓ 80% of teachers will meet expectations on the ECR Attributes Framework (80%).

    - ✓ 80% of teachers will achieve scores above 5 on the CLASS emotional support and classroom organization and above 3.5 on the instructional support domain.

o Measurement Tools: Staff rosters, ECR Quality Indicator Observational Tool, ECR Attributes Framework, Tier-1 Teacher Observations, Classroom Assessment Scoring System observations.

Input #3: Evidence-based integrated instructional model.

- *Activities*: All new schools will implement *Every Child Ready*, AppleTree's evidence-based comprehensive instructional model.

- *Short-term outcomes*: Positive student learning in math, language & literacy, and social emotional learning.

- *Impact*: Student achievement on ECR assessments is comparable to existing classrooms within the network, especially for educationally disadvantaged students, achievement gaps will narrow for key student subgroups.

- *Performance Management*:
  o Performance targets:
    ✓ 80% of students will meet end of the year achievement and growth goals, yearly on the ECR language and literacy and math assessments.
    ✓ 80% of students will meet end of the year achievement and growth goals, yearly on the Positive Behavior Rating Scale assessment.
  o Measurement Tools: ECR Language & Literacy, ECR Math and Positive Behavior Rating Scale assessments.

V. EVALUATION PLAN

AppleTree continues to study *Every Child Ready™* – the instructional model used in all of its schools – and its impact on children's learning. The Evaluation Plan contemplated for the current Project is only one of multiple ongoing studies. For example, two notable studies are currently underway, one evaluating the effectiveness of a standalone social-emotional learning program created by AppleTree and one focused on longitudinal evaluation of AppleTree schools and the *Every Child Ready™* model.

A. Documenting Progress on All Performance Measures

Each Project Year, AppleTree staff, led by its Director of Research and Impact, Dr. Abby Carlson, will complete an annual performance report on the performance targets described in the logic model section above. In addition to annual performance reporting, AppleTree maintains internal monthly reporting to track performance against targets.

The American Institutes for Research ("AIR") will support AppleTree in this analysis and in reporting tasks for all performance measures, providing ongoing technical assistance each year on documenting and summarizing progress on all performance measures. In addition, AIR will conduct independent audits on progress to date, based on the annual reports authored by AppleTree on the performance-management measures. In these audits, AIR will identify any implementation gaps and work closely with AppleTree to develop recommendations, guidance, and potential changes in the replication plan based on findings from the annual performance measure reports. These audits will serve as an opportunity for AppleTree and AIR to co-interpret the themes from the annual reports and make any course corrections needed to keep the grant on track.

B. Background on the American Institutes for Research

AIR's mission is *to conduct and apply the best behavioral and social science research and evaluation towards improving people's lives, with a special emphasis on the disadvantaged.* All of its project work is mission-driven and it is committed to ensuring that its mission is embedded in its research designs and partnerships with clients. AIR's culture reflects a dedication to using objective research to drive policy and practice, and a commitment to diversity and inclusion. Specific to this Project, AIR staff have extensive methodological expertise in designing and conducting mixed-methods formative and summative evaluations that are both experimental (e.g., randomized controlled trials) and quasi-experimental (e.g. comparative interrupted time series designs, propensity score matching). AIR has a particular focus on generating evidence in ways that inform ongoing continuous improvement of programs and strategies. Relatedly, AIR also provides technical assistance to partners at the state, local, district, and school levels (as well as policymakers) to use data to inform decision-making and policy-making. AIR is committed to "*making research relevant*" by integrating expertise in research and practice in its work. Together, AIR's researchers, context experts and technical assistance providers co-interpret how findings can be applied to practice and to inform decision-making at all levels. AIR is also committed to high-quality dissemination and to engaging a wide range of audiences with products targeted to their needs to ensure that the work impacts students and families.

C. AppleTree Replication Evaluation

In addition to the annual performance measures that will document implementation and progress toward the grant's goals, AIR will conduct an independent evaluation of the replication efforts. The evaluation will document the classroom- and student-level outcomes as well as the successes and challenges of expanding high-quality preschool charter schools through replicating

AppleTree's comprehensive approach to early instruction—*Every Child Ready™*. AIR's evaluation will use an implementation-science focus to document the execution and outcomes associated with the charter preschool replication effort and provide guidance for future strengthening and replication of the program. Implementation science provides evidence-based guidance about what factors matter for the success of scaling or replication efforts (e.g., see Management Systems International, 2012), helping AIR focus its approach here on likely predictors of effective replication of this particular program.

The evaluation, led by Dr. Ann-Marie Faria at AIR, will use a quasi-experimental design with both school- and student-level matching to understand if the quality of instruction and student outcomes in replication preschools are equivalent to the outcomes in established AppleTree charter preschools. The study will be longitudinal in nature and will follow a sample of students that enter both established and replication charter preschools from the beginning of Pre-K3 enrollment through the end of Pre-K4. This section describes five elements to the evaluation plan: (1) research questions and study design, (2) sampling plan, (3) measurement and data collection plan, (4) data analysis plan, and (5) a brief timeline of activities.

1: Research Questions and Study Design. For any replication project, it is critical to ensure that there is no loss of quality or effectiveness in existing preschools and that new preschools attain similar quality during the replication process. Therefore, AIR will use this evaluation to answer the following five research questions:

- First, to what extent do established AppleTree charter preschools continue to deliver a high-quality pre-primary education program during the replication phase?

- Second, to what extent do replication AppleTree charter preschools deliver a high-quality pre-primary education program, relative to established AppleTree preschools?

- Third, to what extent do AppleTree charter preschools in the replication group promote students' learning and development, relative to established AppleTree preschools at the end of the Pre-K3 and Pre-K4 year?

- Fourth, to what extent do AppleTree charter preschools (both established and replication preschools) attenuate achievement gaps for key student subgroups at the end of the Pre-K3 and Pre-K4 year?

- Fifth, what are the challenges, successes, and lessons learned about replicating high-quality AppleTree charter preschools?

2: Sampling Plan. In all AppleTree charter preschools (the 11 ones that exist at the beginning of the grant and the nine new ones established during the grant), all students and classrooms will take part in the standard AppleTree assessment battery. The anticipated full AppleTree sample will include an estimated 20 schools (11 established, 9 replication), 129 classrooms (67 established, 62 replication), and roughly 2,600 3- and 4-year old students (1,300 students from the 11 established schools and 1,300 students from the nine replication schools). AIR will examine descriptive patterns for the entire sample, but will recruit a subsample of schools, classrooms, and students to participate in the more in-depth quasi-experimental replication evaluation. The sub-sample will participate in an independent data collection using norm-referenced child assessments (the norm-referenced sample).

- **School and classroom sample.** At the school level, AIR will include seven new (replication) AppleTree charter preschools that will open by 2022, and seven matched Appletree established charter preschools from among the 11 existing schools. (AIR will work with the seven schools that open by 2022, because the replication evaluation is longitudinal in nature, and AIR will need to complete all data collection by year 4 of the study.) AIR will determine the best preschool pair matches using Mahalonobis distance

matching (Stuart, 2010) or manual matching depending on the school-level background information available (e.g. average student baseline performance on AppleTree literacy and mathematics assessments, geographic location by DC Ward, percent economic disadvantaged student enrollment, percent ELL, percent Special Education, school size). All classrooms serving three-year-old students in these 14 schools will be included in the replication evaluation, an estimated 60 classrooms.

- **Student Sample.** AIR will seek active parental consent for direct child assessments for a subsample of students for the replication evaluation . As shown in the table below, based on AIR's prior experience conducting similar studies , it expects to obtain parental consent from 75% of the incoming three-year-olds' families at each of the 14 preschools.

Student-Level Sampling Plan				Cohort Grade Level			
School Pairs	Starting Year	Anticipated Enrollment	Anticipated Replication Sample	2019-2020	2020-2021	2021-2022	2022-2023
Learn PCS	2019	44	33	PK3	PK4		
Match for Learn	Existing	44	33	PK3	PK4		
Harmony PCS	2020	44	33		PK3	PK4	
Match for Harmony	Existing	44	33		PK3	PK4	
Missouri Avenue	2020	88	66		PK3	PK4	
Match for Missouri	Existing	88	66		PK3	PK4	
Frederick Douglass	2021	88	66			PK3	PK4
Match for Douglass	Existing	88	66			PK3	PK4
Rocketship #3	2021	88	66			PK3	PK4
Match for Rocketship #3	Existing	88	66			PK3	PK4
Rocketship #4	2022	88	66				PK3
Match for Rocketship #4	Existing	88	66				PK3
Waterfront	2022	66	33				PK3
Match for Waterfront	Existing	66	33				PK3
	Total	1,012	726				

- **Longitudinal sample.** For the longitudinal replication student sample, AIR will follow a matched sample of incoming three-year-old students and collect data norm-referenced assessments on their learning and development for two years (baseline, end of Pre-K3, end of Pre-K4). To identify the student sample, AIR will use propensity score matching

within matched-pair schools to identify which students in replication AppleTree preschools are most like students enrolled in the matched established preschools. First, AIR will identify each child's propensity to enroll in an established AppleTree preschool, using a logistic regression model with all relevant and available child-, classroom-, and school-level background characteristics (Rosenbaum & Rubin, 1983, 1984; Rubin, 1997). This model will yield values ranging from 0 to 1 that indicate how likely each child is to enroll in an established AppleTree charter preschool. Second, AIR will use those propensity scores to create a 1:1 or 1:many nearest neighbor match (depending on propensity score variation), to select the students in the replication preschools that are most similar to the student body in the established AppleTree schools. AIR anticipates a student sample of roughly 500 students in the evaluation sample (250 students in seven established schools and 250 students in seven replication schools). This student sample will allow AIR to detect an educationally meaningful minimum detectable effect size (MDES) difference of .18 standard deviations in average student performance between the replication and established charter preschools[1]. This is a conservative MDES, which is helpful, given that this evaluation hypothesizes that the replication preschools will have similar student average performance and classroom quality compared to the established preschools (rather than looking for there to be significant differences).

3: Measurement and Data Collection Plan. To answer the research questions, AIR will gather extant data from AppleTree student assessments, independent norm-referenced student

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[1] Power analyses conducted by AIR assumed individual level propensity score matching of 500 students, nested within 14 matched charter preschools and statistical models that assumed an alpha at 0.05 and included five student-level covariates that explained 30% of the variance in student outcomes. These models will yield a minimum detectable effect size of .18.

assessments, teacher surveys, school records, classroom observations, and stakeholder interviews.

- **AppleTree Student Assessments.** To assess student academic learning during the preschool years, AIR will use the ECR literacy and math assessments, which are administered five times per year by the child's pre-primary teacher. ECR assessments provide scores for individual students in mathematics and in literacy. AppleTree also assesses student social and emotional learning, using the Positive Behavior Ratings Scale (PBRS), completed by the child's pre-primary teacher five times per year. Through a data sharing agreement, AppleTree will provide the research team with de-identified classroom- and student-level data for the whole sample, and AIR will also obtain identifiable data for students whose families have provided consent in PreK-3 or PreK-4.

- **Norm-Referenced Student Assessments –The Woodcock-Johnson IV.** To embed students learning within a national context, AIR will independently collect norm-referenced student assessments that will document student academic performance and school readiness at the beginning of Pre-K3 (baseline) and at the end of Pre-K3 and Pre-K4 school years for the sample of roughly 500 consent students. To measure literacy and mathematics skills, AIR will use the Woodcock-Johnson (WJIV) (Schrank, McGrew, & Mather, 2014) a standardized, nationally norm-referenced achievement test that has nine subtests, designed for ages 3–adult. AIR will use three subtests commonly used in other research on early childhood programs: two measures of literacy (Letter-Word Identification subtest and the Picture Vocabulary subtest), and a measure of mathematics (the Applied Problems subtest). The WJIV Letter-Word identification subtest assesses students' reading skills in identifying letters and increasingly difficult words. The Picture Vocabulary task has students identify pictures representing increasingly complex

vocabulary. The Applied Problems subtest involves simple counting, addition, and subtraction, reading clock faces, and calculating coin values. Each subtest is estimated to take five minutes for three-year-old students and up to eight minutes each for kindergartners. The WJIV is a reliable and valid tool (McGrew, LaForte, & Schrank, 2014), with median reliability coefficient alphas ranging from .80 to .95.

- **Teacher Surveys.** AIR will measure students' development (social skills and approaches to learning) through teacher reporting at the end of Pre-K3, Pre-K4 years for all students enrolled in AppleTree charter preschools (the full 2,600 child sample), using the Social Skills Improvement System Rating Scales (SSIS-RS;Gresham & Elliot, 2008), and the Preschool Learning Behavior Scale (PBLS; McDermott, Leigh, & Perry, 2002; Fantuzzo, Perry, & McDermott, 2004).

   The SSIS-RS is a standardized and norm-referenced measure of seven domains of social skills functioning: communication, cooperation, responsibility, empathy, engagement, and self-control. The SSIS-RS was normed on a nationwide sample totaling 4,700 students and adolescents ages 3–18. Median scale reliabilities of the Social Skills and Problem Behavior subscales were in the mid- to upper .90s on each form (Gresham & Elliot, 2008).

   To measure approaches to learning, teachers will complete the PLBS. This 29-item survey identifies successful and ineffective learning patterns in young students including competence motivation, attention/persistence, and attitude. This tool has strong reliability, with high internal consistency estimates from a national standardization sample for each of these three learning behavior dimensions (α = .87, .88, and .78, respectively, Fantuzzo et al., 2004).

- **Classroom Observations.** AppleTree program staff completes four quality-assessment tools during the course of the school year and will provide the data to AIR. First, the ECR Quality Indicator Observational Tool identifies teachers' areas of strengths and weaknesses in more than 20 categories – including student engagement, relevant instruction, time management and classroom organization – to establish an overall quality environment for each student. Second, the ECR Attributes Framework defines evidence-based instructional practices that must be included in every lesson. During lesson planning, teachers use a set of checklists with elements that must be present in each part of the instructional day, offering teachers help to structure a way to evaluate their own fidelity to the framework. Third, the Tier-1 Teacher Observations are conducted by instructional coaches to measure instructors' fidelity to *Every Child Ready™*. Finally, CLASS scores are also collected in each AppleTree charter preschool and classroom as part of intendent accountability monitoring conducted by the DC Office of the State Superintendent of Education and will be made available for the study.

  In addition, as an independent measure of quality, the AIR research team will complete each of these tools twice per school year in the seven established and replication AppleTree charter preschools (for a total of 60 observations per school year for each of the two years that study cohorts are in AppleTree pre-primary classes)**.**

- **Stakeholder Interviews.** Educator interview data will be gathered at AppleTree schools (replication and established). There will be three sources of information from stakeholder interviews. First, AppleTree leadership conducts a "listening tour," visiting each school twice per year to get feedback from teachers about implementation successes and challenges. Second, the AppleTree leadership conducts annual focus groups with parents and school staff to understand their perspective on school practices. Third, the AIR

research team will independently conduct interviews with AppleTree school administrators, teachers and other staff in the 14 established and replication AppleTree charter preschools to gather candid feedback about the replicated programming, to understand if the replication efforts influence programming in established charter preschools, and to learn about what is required for effective replication of the program. These interviews will be developed in year one of the study to be aligned with the logic model to identify the key levers of replication.

4: Data Analysis Plan. AIR will conduct a combination of quantitative and qualitative analyses to answer the research questions in the AppleTree preschool charter replication study. The table below maps the research questions with the analyses and data sources.

Research Question	Analytic Methods	Data Sources
RQ1: To what extent do established AppleTree charter preschools continue to deliver a high-quality pre-primary	Descriptive Analysis	• ECR Quality Indicator Observational Tool • ECR Attributes Framework • CLASS
RQ2: To what extent do replication AppleTree charter preschools deliver a high-quality pre-primary education program,	Regression models	• ECR Quality Indicator Observational Tool • ECR Attributes Framework • CLASS
RQ3: To what extent do AppleTree charter preschools in the replication group promote students' learning and development, relative to established	Multilevel regression models using propensity score matching	• ECR literacy and math assessments • Woodcock Johnson (LWI, PV, AP) • SSIS • PLBS
RQ4: To what extent do AppleTree charter preschools (both established and replication preschools) attenuate	Descriptive analysis	• Woodcock Johnson (LWI, PV, AP) • SSIS • PLBS
RQ5: What are the challenges, successes, and lessons learned about replicating high quality AppleTree Charter preschools?	Qualitative thematic analysis	• AppleTree listening tour • AppleTree focus groups • Independent interviews (conducted by AIR)

Each set of analyses is described in more detail below.

To answer Research Questions 1 and 2, AIR will assess the quality of the nine new AppleTree charter schools and the 11 established AppleTree charter schools using the classroom observation data described above and the public tiered ratings for each preschool. First, AIR will document the patterns of quality education delivered in the 11 established AppleTree charter preschools, to document the extent to which the quality of early-learning environments remains

consistently high, decreases, or increases during the replication phase. Next, AIR will also examine the quality of education delivered in the nine new replication charter preschools. Given the small sample size, AIR cannot conduct quasi-experimental impact analyses, but will provide descriptive statistics that document (a) the levels of quality for established and replicated AppleTree schools, (b) how quality develops over time in replication schools, and (c) which areas of quality are easily achieved and which require more protracted support to attain.

To answer Research Question 3, AIR will conduct two sets of analyses. First, it will compare learning and development outcomes for all students in the nine replication AppleTree schools and the 11 established AppleTree schools based on de-identified data from the ECR assessments. Second, it will compare students' learning and development data from the independently collected direct child assessments in the subset of 14 matched schools and 500 matched students. Using multi-level statistical models AIR will compare the average student performance between replication and established charter preschools. The statistical models will include covariates at the student-level to increase the precision of the estimates. The models also will used school-level matched-pair fixed effects and classroom level random effects to account for the nesting of students within classrooms and schools.

To answer Research Question 4, AIR will examine if and how achievement gaps narrowed in AppleTree established and replication preschools during the replication efforts, by comparing the performance of different subgroups of students in AppleTree charter preschools with the national norms on the direct child assessments as well as within AppleTree preschool comparisons over time. Key subgroups include racial groups, ethnic groups, ELL status, and special-education status. These descriptive analyses will further contextualize the impact of AppleTree programming in established and replication schools.

To answer Research Question 5, AIR will conduct a thematic analysis of all qualitative study data including feedback from the AppleTree listening tours with staff, parent focus groups, and the independent interviews conducted by AIR. For all qualitative data, AIR will transcribe recordings from the sessions and analyze the data using qualitative coding software (NVivo) organized by the key focus group constructs (e.g. school operations, a high-quality workforce, and implementing an evidence-based curriculum). Transcripts from the interviews will be reviewed by two members of the AIR research team using constant comparison analysis to ensure consistency in coding. The coding process will be carried out in several stages. First, data will be sorted into small units that reflect specific thoughts, attitudes, and experiences of participants, and a code will be attributed to sentences, paragraphs, or sections within each of these units. Second, these codes will be grouped into categories. Researchers next will develop themes that express the content of each of the categories that were labeled as key findings and select quotations from the transcripts as evidence of these themes. Using an implementation-science lens, all results from qualitative thematic analysis will be shared with the implementation team through semi-annual feedback meetings, to inform future replication activities and support high quality implementation of the replication effort.

5: Timeline. Year 1 will focus primarily on providing technical assistance to AppleTree with the first annual performance-management report, planning, instrument development, hiring and training data collectors, and starting data collection with a small sample of students (n= 44) in the first replication schools opened. Years 2 through 4 will involve primary data collection for the norm-referenced student sample and qualitative interviews. Primary data collection will be completed by the end of Year 4. Year 5 will focus primarily on analysis, report writing, and sharing the findings with key stakeholders in DC and nationally. Feedback loops to co-interpret performance measures and implementation data will occur in each year of the grant.

A. Process for Opening New Schools

AppleTree follows a rigorous process in expanding or replicating schools, one designed to ensure

that the new schools serve AppleTree's target population and are successful on a host of

measures – operational, financial and academic. In addition to opening new high-quality schools,

AppleTree will ensure quality is maintained in its 11 existing schools. The key elements of the

new-school opening process are detailed below:

- **Opportunity Analysis**. When an expansion or replication opportunity becomes

  available, AppleTree begins to develop an "Opportunity Analysis" that looks at such

  factors as:

  o *Competition.* In its analysis, AppleTree looks at nearby schools competing for similar

    market. One key indicator of demand is waiting lists. Areas with long waiting lists at

    existing schools are good predictors that demand will be sufficient for a new

    AppleTree school.

  o *Demographics.* AppleTree generally finds that students come to its schools from

    nearby neighborhoods, either by walking or via a short drive. Since AppleTree's

    mission focuses on high-need students, it will look carefully at a variety of

    demographic information (e.g., race, educational attainment, income and poverty

    levels). AppleTree consciously does not locate in better-off sections of the District of

    Columbia.

  o *Terms of any real estate involved.* Real estate in Washington, DC is expensive.

    AppleTree is disciplined when it comes to paying for real estate. For AppleTree@

    schools, AppleTree agrees to pay as rent to the host LEA no more than the facilities

    allowance provided by the District (which is currently about $3,200/student/year). For

property that AppleTree purchases or rents from a third-party it tries to use tax-advantaged financing or (as will be the case with the Waterfront site) pay a below-market rent that a developer has agreed to charge as part of its development agreement with the city.

- o *Financial projections.* AppleTree presently manages 11 schools in DC and understands well the economics of managing schools in the District. In general, it seeks generate a school-level surplus of about 13 percent of revenues. The key drivers to success are two-fold: having a sufficient number of classrooms in each school (four is the minimum required) and making sure that real-estate costs are tightly controlled.

- o *Talent and management needs.* AppleTree has a well-developed infrastructure for managing schools and is comfortable it can manage nine new schools over the next five years. However, there are new personnel needs required by each new school, particularly when it comes to teachers and school leadership. As described later on, it is for this reason that AppleTree developed its Residency program to internally develop and train new school staff.

An example of such an Opportunity Analysis – for the Missouri Avenue School projected to open in August 2020 – can be found in Appendix I.

- ● **Community Engagement**. For each identified opportunity, AppleTree will conduct formal and informal community engagement activities. The formal activities usually revolve around Washington, DC's Advisory Neighborhood Commissions ("ANCs") which are non-partisan neighborhood organizations composed of locally elected representatives. There are now 40 ANCs in DC. In addition, AppleTree will reach out informally to other community groups or simply by meeting neighbors at community gathering spots. Doing so also helps AppleTree understand better the demand for having

its preschools within a community. Even after school openings, AppleTree staff remains deeply engaged in the neighborhoods where its schools are located. Staff routinely attends community meetings relating to matters of concern to residents (e.g., proposed new developments or crime watches). In addition, AppleTree makes available to community groups the meetings spaces at its home offices – which are located close by to six of the schools AppleTree manages. (AppleTree's largest meeting space has an occupancy limit of 199 people, meaning it can handle quite large groups).

● **Physical Plant Development and Management**. Opening high-quality schools requires identifying real estate that can house those schools. The real estate needs to be of sufficient size (generally 15,000 SF for an eight-classroom school), attractive and conducive to learning, located in an area of need, and economically viable. Finding such real estate in a growing, high-cost city such as Washington, DC is a difficult task. AppleTree's staff, including its CEO, General Counsel and Chief Operating Officer, have significant experience in securing school properties. In the past, AppleTree has developed and executed innovative financing plans utilizing Qualified Zone Academy Bonds, Qualified School Construction Bonds, Equity Grants, Credit Enhancement, Loan Guarantees, and conventional funding. AppleTree schools are sometimes in leased properties (e.g., AppleTree's Oklahoma Avenue school is a former Catholic elementary school), are sometimes in standalone facilities (e.g., AppleTree's Lincoln Park school, which is owned by AppleTree), and are sometimes built as part of an existing project (e.g., AppleTree's Douglas Knoll school was developed as part of a low-income housing project). AppleTree will bring this same experience to bear on its replication of the new schools proposed as part of this Grant.

- **Priority Planning Process**. In many cases, especially when AppleTree is being asked to become a co-CMO of an existing school, it will conduct its proprietary Priority Planning Process ("PPP"). The PPP is conducted by AppleTree staff on site. It incorporates student achievement, classroom quality, parent and teacher satisfaction, and site-wide fidelity and alignment data. Through the review process, teachers and leaders develop a solid understanding of the strengths, weaknesses, and priority opportunities for their program at the student, family, teacher, and site levels. In collaboration with a school's instructional leaders, AppleTree will generate a program-specific implementation plan to ensure that AppleTree's early-education classrooms can be seamlessly integrated into the existing school's culture and pedagogy.

- **Prospective Partner Rubric.** AppleTree is constantly being approached by charter schools that wish it to come in and manage an AppleTree@ early-education school. For such an arrangement to work, however, AppleTree needs to ensure that the school and AppleTree are aligned on a host of criteria, including support by the existing school's management team and board of directors, finances, school culture, physical space available for classrooms, community need and desires, and the degree to which the proposed AppleTree@ school advances AppleTree's mission. The rubric itself can be found in Appendix I.

- **AppleTree Start-up Playbook**. Once AppleTree has decided to proceed forward with a new school, the AppleTree "Playbook" walks through, in extreme detail, the steps necessary to opening a successful school, including staffing, ordering of equipment, and student recruitment. The Playbook itself can be found in Appendix I.

- **Early-Learning Teacher Residency Program.** The most difficult part of expanding or replicating early-education schools is the dearth of high-quality instructional staff.

Research as well as AppleTree's own experiences demonstrate that skilled and practiced teachers have a critical impact on the quality of early-childhood education. Yet too many teachers are not prepared to support strong early learning. Professional development opportunities that are typically available to early-education teachers are not well-aligned with the skills those teachers need to be successful in the classroom. Instead, most early-education professional development is workshop-based, focused on early-childhood education theory rather than practice, and lacking in opportunities for educators to practice new teaching strategies or skills.

To remedy this, AppleTree partnered with Relay Graduate School of Education and the National Center for Teacher Residencies to develop its Teacher Residency Program to prepare a growing pipeline of well-qualified teachers. The Program provides: (1) hands-on and consistent practice that allows teachers to apply their skills until they achieve success; (2) real-time feedback that encourages Resident Teachers to recognize and address their weaknesses; and (3) peer learning that helps Residents reinforce their skills. Resident teachers are fully compensated (including benefits) and are also afforded an opportunity of receiving an advanced degree (after subsidization by AppleTree, the cost to Residents is $5,000 or less) through AppleTree's partnership with the Relay Graduate School of Education.

The Residency Program is critical to AppleTree's growth as well as building the field for effective early teaching and learning. Almost half of the teachers in AppleTree's existing schools were once Teacher Residents. For the new schools planned under this Grant Application, AppleTree expects the figure to be that or higher.

B. Key Personnel

From a corporate perspective, AppleTree consists of two, related non-for-profits: AppleTree Institute for Education Innovation, Inc. and AppleTree Early Learning Public Charter School. From an operational point-of-view, however, the two operate as one entity. All AppleTree schools are managed from the same home office and by the same home-office staff. Similarly, all AppleTree new school openings are managed by AppleTree's home office staff. Key personnel involved in this effort include:

Thomas M Keane, Jr. (Project Manager; General Counsel and Chief of Strategic Initiatives). Mr. Keane will manage the overall expansion and replication effort. Since 2012, he has been General Counsel and Chief of Strategic Initiatives for Appletree where he oversees business planning and growth initiatives and works closely with other executive team members on public-policy advocacy, communications, public relations, and philanthropic development. Mr. Keane also handles all manner of legal issues, including real estate, human resources, intellectual property, contracts, software licensing, compliance, risk avoidance, and (as needed) management of outside counsel.

Jack McCarthy (President and CEO). Mr. McCarthy is the President and CEO of AppleTree Institute for Education Innovation, which he co-founded in 1996, and AppleTree Early Learning Public Charter School. Under his leadership, both AppleTree nonprofits have grown in impact and size to a $28 million enterprise with 300 staff and a growing impact on early-learning research, policy and practice both in the Nation's Capital and nationally. In 2018, he was inducted into the DC Charter Schools Hall of Fame.

Kathleen Black (Chief Academic Officer). Dr. Black joined AppleTree in 2018, bringing 15 years' experience as a dedicated educator to her position of Chief Academic Officer. As Chief Academic Officer, Dr. Black provides daily oversight of academic leadership across all

AppleTree schools ensuring that student achievement and social emotional goals are met or exceeded and guaranteeing the high-quality implementation of the *Every Child Ready™* instructional model.

Chavaughn Brown (Chief of Research and Innovation). Dr. Brown is the Chief of Research and Innovation at AppleTree Institute for Education Innovation. She establishes the vision and direction of AppleTree Institute's research agenda. She manages the AppleTree Instructional Quality team and ensures the design and ongoing quality of AppleTree's instructional model for three- and four-year-olds, Every Child Ready™. Brown supervises a 26-person team with expertise in research design and methodology, assessment and evaluation, curriculum and content development, professional development, and education technology.

Abby Carlson (Director of Research and Impact). Dr. Carlson, an applied developmental psychologist, is the Director of Research and Impact for AppleTree. She has been a part of AppleTree Institute's Instructional Quality program since 2012, serving in various roles and collaborating on the development and validation of numerous observational and direct assessment tools. At AppleTree she leads work around the Institute's research agenda and dissemination efforts, as well as creation and validation of new assessment tools and processes. Dr. Carlson will lead the annual performance report for all performance measures.

Dwight Crawford (Chief Operating Officer). Mr. Crawford is the Chief Operating Officer, Chief Financial Officer, Treasurer and member of the Executive Team. In addition to heading the Finance Department, which includes financial reporting, budgeting and treasury operations, he also manages the Human Resources School Operations, Facilities and Information Technology Departments.

Anne Zummo Malone (Chief of Growth and Impact) Ms. Malone has been a member of the AppleTree team since 2006. She has held several leadership roles over the years, including

Literacy Coach, school principal, Director of School Leadership, and Chief of Schools. Since Ms. Malone started in 2006, AppleTree has grown from serving 36 students at one school in 2005 to serving 1,300 students across eleven schools in 2018 while continuously improving child outcomes and having a positive impact on early childhood policy and practice. She now serves as Chief of Growth and Impact and uses her years of experience and knowledge to develop and build current partnerships with schools and LEAs as well as cultivate new AppleTree@ relationships while exploring the possibility of expanding AppleTree's impact to the Northeast Region of the United States.

Jamie Miles (Chief of Schools). Ms. Miles joined AppleTree in 2015 as Chief Academic Officer, which she served as for three years, developing school-wide and school-specific goals, strategies and plans with academic and operational leaders to implement high-quality school programs. She became the Chief of Schools in 2018, using her prior experience to ensure operation and academic alignment between the schools and the AppleTree organization.

Kelly Riling (Manager of Teacher Residency). Ms. Riling is the manager of AppleTree's Teacher Residency Program. In addition to managing AppleTree's relationship with Relay Graduate School and the National Center for Teacher Residencies, she oversees the evidence-based teacher residency program and alumni program growing the educational talent at AppleTree. Her efforts have increased the preschool teacher pipeline and insures that as AppleTree opens more classrooms, it will have quality teachers in place to continue high-quality instruction.

Tony Taylor (Director of Operations and Compliance). Mr. Taylor has been with AppleTree since 2012 working in Operations and Compliance. During that time, AppleTree has doubled in size while maintaining quality. Since 2016, he has been the Director of Operations and Compliance where he manages an operations staff across four departmental areas and 11 schools

in addition to data systems, state and federal compliance, school operations, and organizational operations.

Kelly Trygstad (Director of Teaching and Learning). Ms. Trygstad maintains deep knowledge of the early childhood landscape and the *Every Child Ready™* service portfolio to provide individualized implementation plans for all *Every Child Ready™* partners. As Director of Teaching and Learning, Ms. Trygstad oversees the development and implementation of all curriculum and professional learning (in-person and online courses) and the implementation of student and teacher assessments. Ms. Trygstad holds a master's in Early Childhood Special Education from Johns Hopkins University. She has served as a Fellow, Lead Teacher, Coach, Principal, and Response to Intervention Coordinator during her tenure at AppleTree. Ms. Trygstad collaborates closely with Dr. Black (listed above) to ensure instructional alignment across AppleTree Schools.

Juanita White (Director of Family and Community Engagement). Through her role at AppleTree as Director of Family and Community Engagement, Ms. White promotes AppleTree as the high-quality Charter School that it is to the community and to current and prospective families. She strives to work with community leaders and organizations to build strong partnerships for a positive impact, while promoting the importance of high-quality early childhood education and the impact it will have on children's educational future.

Full resumes for each of the above can be found in Appendix B.

WAIVERS

Requirement O asks for a justification for any requested waivers. AppleTree is not requesting

any waivers.