

# I. Introduction & summary

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This report estimates the unmet need for pre-K in Santa Fe and quantifies the benefits and costs of a city-lead initiative designed to meet this need.

Pre-K provides a powerful antidote to some of the cognitive, behavioral, and emotional damage caused by early deprivation and stress and helps to break the cycle of generational poverty that traps many families. By making it possible for parents to work, pre-K also increases family income and purchasing power. A small number of rigorous longitudinal analyses have documented benefits from pre-K that persist far into adulthood, including improvements in numerous economic, social, and health outcomes and reductions in the incidence of many negative outcomes and risk behaviors even decades later in life.

An estimated 966 3-and 4-year old children living within the boundaries of the City of Santa Fe have unmet need for high-quality pre-K. Over 72 percent of these children are Hispanic and over 55 percent live in households with income below 200 percent of the federal poverty level (\$36,325 for a family of four). Meeting this need with high quality extended-day services will entail the creation of 56 new pre-K classrooms and the employment of at least 196 additional pre-K teachers and administrators, at a cost of approximately \$7.48 million annually -- \$7.2 million in provider reimbursements and \$316,343 for professional development and pre-K consultation services. Benefits will total \$17,641 per child and \$17 million per 2-year pre-K cohort. Santa Fe's pre-K initiative, if fully implemented, will generate benefits worth at least \$3.30 for every \$1 in costs.

# II. 3 & 4 year olds in Santa Fe

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Approximately 1,931 3-and 4-year old children live within the boundaries of the City of Santa Fe. Santa Fe 3-and 4-year olds who are enrolled in preschool are more likely than unenrolled children to be White Non-Hispanic or Native American. Almost three quarters of unenrolled 3-and 4-year olds are Hispanic.

Table 1 2016 FEDERAL POVERTY GUIDELINES

Household Size	100%	150%	200%	250%	300%
1	\$11,770	\$17,655	\$23,540	\$29,425	\$35,310
2	\$15,930	\$23,895	\$31,860	\$39,825	\$47,790
3	\$20,090	\$30,135	\$40,180	\$50,225	\$60,270
4	\$24,250	\$36,375	\$48,500	\$60,625	\$72,750
5	\$28,410	\$42,615	\$56,820	\$71,025	\$85,230
6	\$32,570	\$48,855	\$65,140	\$81,425	\$97,710

\$4,160 for each additional person. The poverty guidelines updated periodically in the Federal Register by the U.S. Department of Health and Human Services under the authority of 42 U.S.C. 9902(2). <https://aspe.hhs.gov/poverty-guidelines>

Figure 1 Income distribution of Santa Fe 3- and 4-year olds

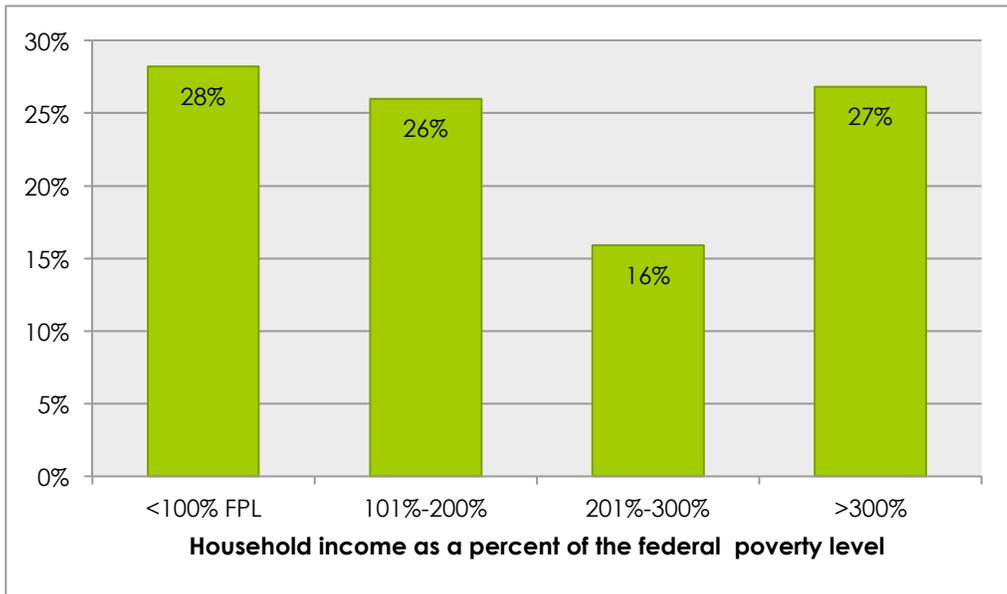
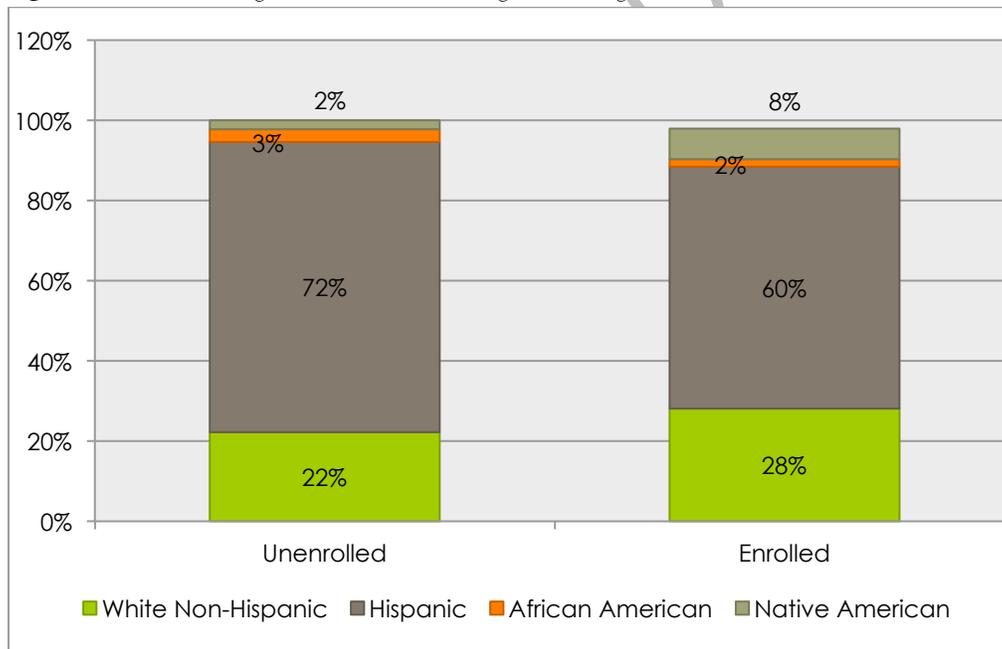


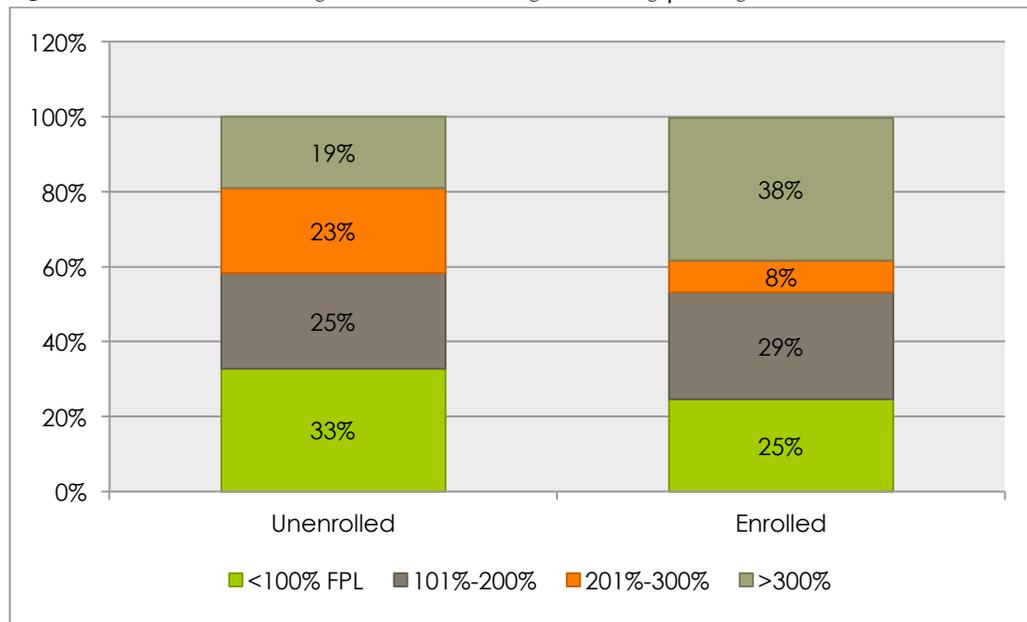
Figure 2. Race/Ethnicity of Santa Fe 3- and 4-year olds by school enrollment



Source: American Community Survey 2014 5-year estimates

Children who don't attend preschool are more likely to be from low-income households than children who do (**Figure 2**). The relatively small percentage of enrolled children who come from households with income between 200 and 300 percent of the federal poverty level reflects, in part, the income distribution of Santa Fe 3- and 4-year olds (**Figure 1**), but it may also be due to the fact that families with income in this range make too much to qualify for Head Start or state-subsidized child care but can rarely afford to pay the full Santa Fe market rate for child care.

Figure 3. School enrollment by Santa Fe 3-and 4-year olds by poverty status



Source: American Community Survey 2014 5 year estimates

Sixty-five percent of 3-and 4-year olds enrolled in preschool and 59 percent of un-enrolled children live in families in which all parents work, suggesting that families of un-enrolled children have significant need for child care. Over 40 percent of un-enrolled 3-and 4-year olds live in single parent families.

Table 2 School enrollment of Santa Fe 3 & 4-year olds by family type and parental labor force participation

Labor force participation by family type	Un-enrolled	Enrolled
<b>Two parents</b>	<b>59%</b>	<b>71%</b>
Both parents in labor force	27%	46%
One parent in labor force	30%	25%
Neither parent in labor force	2%	0%
<b>Single parent</b>	<b>42%</b>	<b>29%</b>
In labor force	32%	19%
Not in labor force	10%	10%
<b>All parents present in the household are in the labor force</b>	<b>59%</b>	<b>65%</b>
<b>Total</b>	<b>100%</b>	<b>100%</b>

Source: American Community Survey 2014 5 year estimates

Children enrolled in preschool are more likely than their un-enrolled peers to have moved within the past year (Table 3). Frequent moves have been shown to negatively impact children's well-being, social capital, physical health, behavioral health, and academic success.<sup>1, 2, 3</sup>

Table 3 Residential mobility of Santa Fe 3- and 4-year-olds

Lived in same house for at least 1 year	Un-enrolled	Enrolled
Yes, same house	72.7%	83.4%
No	27.3%	16.6%
Total	100%	100%

Source: American Community Survey 2014 5 year estimates

Fifty percent of un-enrolled 3- and 4-year olds live in households where a language other than English is the primary language spoken (Table 4).

Table 4 Language spoken in the homes of Santa Fe 3- and 4-year olds by child's school enrollment

	Un-enrolled	Enrolled
English only	33.2%	50%
Spanish	63.3%	41.9%
Other language	3.5%	8.0%

Source: American Community Survey 2014 5-year estimates

### III. Characteristics of high quality pre-k

The quality of pre-K is determined, in large part, by the quality of interactions between child and teacher and the teacher's ability effectively implement curricula.<sup>4</sup> The relational aspects of classroom quality are extremely difficult to regulate directly, but regulatory guidelines for classroom size, child-teacher ratios, and staff qualifications foster conditions conducive to supportive and stimulating teacher-child interactions. Hence, a set of ten regulatory benchmarks is used to gauge and compare the quality of state pre-k programs. The National Institute for Early Education Research (NIEER) tracks and publishes these data annually (Table 5). New Mexico met two of the NIEER benchmarks in 2002 and meets eight or nine of them today.<sup>a</sup>

<sup>a</sup> Because PED requires New Mexico Pre-K teachers to be licensed and certified, PED Pre-K meets nine of the ten benchmarks.

Table 5 New Mexico Pre-K Requirements and Pre-K Benchmarks

Policy	NM Pre-K Requirement	Benchmark	NM Meets Benchmark
Early learning standards	Comprehensive	Comprehensive	✓
Teacher degree CYFD	High School Diploma	BA	
Teacher degree PED	BA		✓
Teacher specialized training CYFD		Specializing in Pre-K	✓
Teacher specialized training PED	Early Childhood License		✓
Assistant teacher degree CYFD	High school diploma + working toward Associate degree*	CDA or equivalent	
Assistant teacher degree PED			
Teacher in-service	45 clock hours	At least 15 hours/year	✓
Maximum class size 3 year old	16**	20 or fewer students	✓
Maximum 4 year old class size	20		✓
Staff-child ratio 3 year old	1:8**	1:10 or better	✓
Staff-child ratio 4 year old	1:10		✓
Screening/referral and support services	Vision, hearing, health, dental, developmental & support services	Vision, hearing, health, & at least one support service	✓
Meals	At least one meal	At least one meal	✓
Monitoring	Site visits and other monitoring	Site visits	✓

\*Assistant teachers in PED and CYFD classrooms are expected to have an AA in early childhood education but may be hired without an AA with an approved professional development plan and completion of at least six college credits annually toward the requirement. \*\* 14 student maximum group and 1:7 ratio for double session classrooms

## IV. Definitions and model assumptions

For purposes of this analysis, “high-quality pre-K” and “unmet need” are defined as follows:

**High-quality pre-K** is defined as preschool programs that meet at least eight of NIEER’s ten pre-K quality benchmarks. High-quality pre-K programs in New Mexico include:

- New Mexico Pre-K classrooms in both public and private settings,
- Private child care programs that serve 3 and/or 4-year olds, emphasize school-readiness, and are NAEYC accredited or have received at least 4 stars from CYFD’s FOCUS or Aim High childcare rating systems,
- Head Start center-based preschool programs that have been awarded at least 4 stars through FOCUS and/or Aim High

**Unmet need** is defined as the number of 3-and 4-year old children who are not enrolled in high quality pre-K and would be likely to enroll in a public pre-K program if it were high-quality, convenient, and affordable. Children are included in the tally of unmet need if they are not enrolled in any program or enrolled in programs that are not defined as high-quality.

Several assumptions about the characteristics of a Santa Fe Pre-K initiative were made in order to estimate benefits and costs. These assumptions are made for purposes of analysis and should not be considered prescriptive.

- All 3-and 4-year old children residing within the boundaries of the City of Santa Fe qualify for services

- 900 classroom hours per student per year
- The initiative provides funding to:
  - Create new slots in established private and public New Mexico Pre-k programs.
  - Convert existing half-day slots to extended-day slots in established private and public New Mexico Pre-k programs.
  - Create slots in new pre-k programs that meet the requirements for New Mexico Pre-K even if they don't receive NM-Pre-K funding
  - Provide technical assistance to funded classrooms
  - Provide in-service and pre-service professional development opportunities, including T.E.A.C.H. scholarships, for pre-K teachers, teaching assistants, and administrators.

## V. Santa Fe pre-K landscape

Santa Fe's 3-and 4-year olds are cared for in a variety of settings, only some of which constitute pre-K. For purposes of this analysis, pre-K programs are distinguished from other programs serving preschoolers by their focus on school readiness and their high and consistent program standards. In Santa Fe, pre-K services are provided by New Mexico Pre-K programs in public schools and private childcare programs, Head Start, and in private child care programs that have received accreditation from the NAEYC and/or have been awarded 4 or 5 stars through CYFD's quality rating improvement system.

### **New Mexico Pre-K**

New Mexico Pre-K is a state-funded early education program for 3-and 4-year-olds administered by CYFD and the Public Education Department (PED). New Mexico Pre-K is not technically means-tested but it targets children in low-income (Title I) school districts. In 2016, 460 Santa Fe 4-year-olds attended NM Pre-K programs. Forty-eight slots for 3-year olds were added in 2016-2017 as part of a pilot program.

In school year 2015-2016, Santa Fe Public Schools operated New Mexico Pre-K programs at 10 schools with a total of 13 classrooms and 332 students – 254 in half day programs and 78 in extended day programs (**Table 6**). Four private early learning programs operated CYFD-funded New Mexico Pre-K classrooms serving 128 4-year olds – 52 in half-day slots and 76 in extended-day slots (**Table 7**).<sup>5</sup> In 2016-2017 United Way of Santa Fe County and Santa Fe Community College added two half-day classrooms and one extended-day classroom for 3-year olds.

Table 6 2016 Santa Fe Public Schools NM Pre-K Programs

Elementary School	Number of Classrooms	Students	
		1/2 day	Full day
Atalaya	1	0	17
Cesar Chavez	1	26	0
Chaparral	1	31	0
El Camino Real	2	20	16
Francis X Nava	1	20	0
Kearney	1	30	0
Nina Ortero	3	32	35
Pinon	1	69	0
Sweeney	1	26	0
Tesuque	1	0	10
SFPS total	13	254	78

Source: New Mexico Legislative Finance Committee

Table 7 2016 CYFD Funded NM Pre-K Programs

Early Learning Provider	Students
TLC - The Learning Center	20
PMS	20
SFCC Kids Campus	20
UWSFC 1/2 day	32
UWSFC Extended-day	36
<b>CYFD Total</b>	<b>128</b>

Source: New Mexico Legislative Finance Committee

### Head Start

Head Start is a means-tested preschool program primarily serving families below 130 percent of the federal poverty level (\$31,525 for a family of four) that receives the majority of its funding from the federal government. Head Start programs in Santa Fe have the capacity to serve 354 3- and 4-year olds in a combination of half-day and full-day programs. However, only 228 of these slots are in “high-quality” programs. Three of Santa Fe’s seven Head Start programs have received with four or more stars on CYFD’s child care rating system. Further, CYFD inspection reports indicate that, on the date of inspection, these high quality programs were serving 111 students over two years of age.<sup>6</sup> The estimate of unmet need presented here includes the licensed capacity of the city’s three high-quality center-based Head Start programs in the tally of existing pre-K capacity and assumes that two-thirds (150) of the slots could be occupied by 4-year-olds and the remaining one-third (78) could be occupied by 3-year-olds.

### High Quality Early Childhood Programs for 3&4-year olds

Early childhood programs that are NAEYC-accredited and/or have received a 5 star rating from the CYFD FOCUS quality rating improvement system (QRIS) provide services to 3- and 4-year olds that are roughly comparable to those of New Mexico Pre-K.

Table 8 Santa Fe high-quality private early childhood programs that serve 3&4 year olds

	Star	Ages	Capacity	Census
Garcia Street Club	5	Over age 2	67	47
569 Garcia Street Santa Fe, NM 87505	★★★★	Under age 2	13	5
Kids Campus at SFCC	5	Over age 2	96	47
6401 Richards Ave Santa Fe, NM 87508	★★★★	Under age 2	38	9
La Casita Pre School	5	Over age 2	25	6
438 Alamo Dr. Santa Fe, NM 87501	★★★★	Under age 2	0	0
PMS Head Start - Flores Del Sol	5	Over age 2	160	82
5600 Agua Fria Santa Fe, NM 87507	★★★★	Under age 2	0	0
PMS Head Start - Tierra Contenta	5	Over age 2	28	16
3908 Paseo del Sol Santa Fe, NM 87507	★★★★	Under age 2	16	13
Santa Fe Children's Project Early	5	Over age 2	60	23
430 La Madera St. Santa Fe, NM 87501	★★★★	Under age 2	0	0
Temple Beth Shalom Preschool	5	Over age 2	43	23
205 E. Barcelona Rd. Santa Fe, NM 87505	★★★★	Under age 2	0	0
La Petite Academy Inc. 7292	5	Over age 2	67	41
1361 Rufina Circle Santa Fe, NM 87507	★★★★	Under age 2	53	11
First Presbyterian Pre School	4	Over age 2	36	32
208 Grant Ave. Santa Fe, NM 87501	★★★★	Under age 2	24	14
Little Earth School	4	Over age 2	32	16
321 West Zia Road Santa Fe, NM 87505	★★★★	Under age 2	0	0
PMS Head Start – Sweeney	4	Over age 2	40	13
501 Airport Rd Santa Fe, NM 87507	★★★★	Under age 2	0	0
SF School for the Arts & Sciences	4	Over age 2	24	17
5912 Jaguar Drive Santa Fe, NM 87507	★★★★	Under age 2	0	0

Source: Children, Youth, and Family Department, 2016 Childcare Surveys. <https://newmexico.sanswrite.com/newmexico/public/>

## VI. Unmet need

Thirty-seven percent (707) of Santa Fe's 3-and 4-year olds are enrolled in New Mexico Pre-K, high quality (4 or 5 star) Head Start programs, or high quality (4 or 5 star) licensed childcare centers.<sup>b</sup>

The estimate of unmet need assumes that 80 percent (1,545) 3-and 4-year olds would enroll in full-day public pre-K if it were high quality, affordable, and close to where their parents live and/or work. To estimate the unmet need for public pre-K, the number of children already served in high quality preschool programs (707) is subtracted from the number expected to enroll in a readily accessible, high-quality public program (1,545). Roughly 36 percent (254) of the 707 children currently attending high quality preschool are enrolled in part-day programs. An additional half-day slot is added to the estimate of unmet need for each child currently receiving half-day services.

$$\text{Unmet Need} = 1,545 - 707 + (.5 * 254) = 966 \text{ extended day slots}$$

Table 9 shows the derivation of unmet need by age. Due, in large part, to the expansion of New Mexico Pre-K, 4-year olds have less unmet need for high quality preschool than do 3-year olds.

<sup>b</sup> The enrollment estimate assumes that three quarters of 3-and4-year olds enrolled in high-quality Santa Fe programs reside within the incorporated boundaries of the City of Santa Fe.

Table 9 Calculation of Unmet Need for Pre-K in Santa Fe By Age

	3 year olds	4 year olds
Total population ages 3 & 4	966	966
80 percent of total population ages 3 & 4	772	772
minus CYFD Pre-K (Full day equivalents)	28	61
minus PED Pre-K (Full day equivalents)	0	205
minus Head Start (Full day equivalents)	57	92
minus 4 & 5 star child care 3 & 4 yo (CYFD census)	74	62
= Unmet need (Full day slots)	613	353

## VII. Costs and benefits of a Santa Fe pre-K initiative

Meeting the unmet need for high quality pre-K would cost a total of \$7.48 million annually, \$7.2 million of which would be paid directly to pre-K providers and the remainder of which would support technical assistance and professional development for providers. Santa Fe pre-K would generate net benefits of \$17,641 per child and \$17 million per cohort, a benefit-to-cost ratio of \$3.30 in benefits for every \$1 in costs.

### THE COST OF MEETING UNMET NEED

New Mexico Pre-K reimburses \$3,206 per child per year for half-day services provided to 4-year-olds and \$6,412 for extended day services. Services provided to 3-year-olds are reimbursed at \$4,000 and \$8,000 for half-day and extended-day services respectively.

Table 10 New Mexico Extended Day Pre-K: Ratios, Hours, and Reimbursement

	NM Early Pre-K (3 year olds)	NM Pre-K (4 year olds)
Maximum class size	16	20
Educator: Child ratio	1:8	1:10
Classroom hours	900	900
Total hours	990	990
Reimbursement rate/child	\$8,000	\$6,412

Source: 2016 NM Early Pre-K RFP & NM Public Education Department NM Pre-K Program SY 2016-17 Continuation Application <http://ped.state.nm.us/ped/RFPDocs/2016/FY17%20PreK%20Continuation%20Application%203-2-2016%20FINAL.docx>.

### Technical Assistance

The New Mexico Pre-K Professional Development and Consultation program provides on-site training and technical assistance to teachers, educational assistants, and administrators. The consultation program is one of New Mexico Pre-K's core strengths and critical to the consistent delivery of high quality services. The Santa Fe pre-K budget should include \$200,000 in recurring funding for pre-K consultation services

### Professional Development

The proposed expansion of pre-K in Santa Fe will require at least 56 new pre-K classrooms, each staffed by an appropriately credentialed lead teacher, teaching assistant, and enough additional teaching staff to ensure that teachers have adequate time outside the classroom and student-to-teacher ratios are consistently maintained. Pre-K quality benchmarks dictate that all lead teachers hold at least a bachelor's degree and an early childhood teaching license and all assistant teachers

have an early childhood associate degree or equivalent. All PED New Mexico Pre-K classrooms and many CYFD New Mexico Pre-K classrooms adhere to this standard, and those that don't require teachers to be actively pursuing the necessary degrees and credentials.

Table 11 Santa Fe pre-K annual TEACH scholarship costs

Lead teachers	56	\$33,241
Teaching assistants	84	\$49,861
Administrative staff	56	\$33,241
<b>Total</b>	196	\$116,343

Teacher Education and Compensation Helps (T.E.A.C.H®) scholarships help New Mexico Pre-K staff obtain additional education with support for tuition, textbooks, travel stipends, and compensation bonuses. Appropriately credentialed pre-K teachers are in short supply, so Santa Fe should anticipate an ongoing investment in professional development and include money for T.E.A.C.H® scholarships in the pre-K budget. T.E.A.C.H® scholarships currently average \$1,800 per teacher per year. Providing scholarships to one-third of teachers and administrators each year would cost the city \$116,343. Table 12 shows the number of new classrooms needed and the annual cost of 966 extended-day slots

Table 12 Meeting Santa Fe's unmet need: slots, classrooms, and cost

	3-year-olds	4-year-olds	Total
<b>Slots</b>	613	353	966
<b>Classrooms</b>	38	18	56
<b>Per student cost</b>	\$4,905,902	\$2,261,490	\$7,167,392
<b>Technical Assistance</b>			\$200,000
<b>T.E.A.C.H®</b>			\$116,343
<b>Total</b>			\$7,483,735

## THE BENEFITS OF MEETING UNMET NEED

An extensive body of research from across the U.S. confirms that high quality preK can improve test scores, decrease rates of special education placement and grade repetition, reduce delinquency, and increase high school graduation rates. Analyses that have tracked pre-K attendees into adulthood have documented an array of long-term benefits including higher rates of college attendance, higher earnings, and reduced likelihood of crime, welfare dependency, and health risk behaviors.<sup>7</sup>

The benefits of pre-K are distributed across a variety of stakeholders. The child benefits from better health, more success in school, and a more productive, fulfilling life. The child's parents benefit from having a stable source of child care and experience less financial stress. However, the majority of pre-K's benefits are external to the family.<sup>8</sup> They accrue to a variety of stakeholders outside the child's immediate family including all levels of government, the economy, and society overall.

The pre-K initiative modeled in this report is similar to an expansion of New Mexico Pre-K designed to reach more children for a longer period of time – full day versus half day and two years versus one year. The similarity to New Mexico Pre-K makes it possible to use New Mexico Pre-K evaluation data to estimate the benefits of a Santa Fe pre-K initiative. However, because the Santa Fe initiative will be more intensive than the half-day, single-year state program evaluated thus far

(New Mexico's extended day and 3-year old Pre-K pilots have not yet been evaluated), the forecasted benefits may underestimate those ultimately realized in Santa Fe.

### Short-term

Short-term benefits of high-quality pre-K include improvements in school readiness, 900 hours of high quality child care, worth about \$4,503, per family per year, and increased workforce productivity for parents, valued at \$1,722 per pre-K household per year. These benefits total \$6,225 per pre-K student, or \$6 million annually.

#### Kindergarten readiness

Pre-k improves school readiness<sup>c</sup> by nurturing the development of early language, literacy, and math skills. Numerous evaluations of programs across the country document the proximal benefits of pre-K, including improved performance on learning and developmental assessments designed to gauge school readiness.<sup>9</sup> Performance on kindergarten entry assessments has been shown to be predictive of higher adult earnings and the many other benefits documented in the long term, longitudinal studies of pre-K.<sup>10</sup>

The National Institute for Early Education Research (NIEER) evaluated New Mexico Pre-K from 2005 through 2010. Based on kindergarten entry assessment scores, the NIEER evaluators concluded that NM Pre-K produced statistically significant positive impacts in language, literacy, and mathematics, the three content areas most critical to later academic success.<sup>11</sup>

The NIEER findings have been repeatedly reaffirmed by test results and other on-going evaluation metrics since 2010.<sup>12</sup> Over 93 percent of children who attended New Mexico Pre-K in school year 2014-2015 made measurable improvements in school readiness.<sup>13</sup>

#### Parent Employment and Household Disposable Income

Most children attending preschool in Santa Fe have at least one parent who works (**Table I**). Reliable child care is critical for working families. The proposed Santa Fe pre-K initiative would provide families \$4,503<sup>d</sup> worth of free child care each year, a benefit totaling \$4.3 million annually.

Public pre-K provides an affordable child care option for working parents, particularly low income families with limited access to high quality early childhood programs. Because pre-K is not strictly means-tested, it is one of the few options available to working families with income too high to qualify for public programs yet too low to pay market rate for high quality child care.

By supporting parental workforce participation, pre-k can improve child wellbeing,<sup>14</sup> increase family economic security, and make the local economy more productive.<sup>15</sup> The cost of child care is effectively a tax on parent wages, which can create a powerful disincentive to employment, especially for low-wage workers.<sup>16</sup> In one survey, 40 percent of non-working mothers cited child care costs as their primary barrier to employment.<sup>17</sup> Subsidized early childhood programs have been shown to increase the duration of employment, the number of hours worked, and the earnings of working mothers.<sup>18</sup> <sup>19</sup> The availability of public pre-K has also been shown to increase the chances that mothers of 4-year-olds will be employed even if they also have younger children at home.<sup>20</sup> In one study, employment by low income single mothers increased by approximately 50 percent when child care costs were subsidized by 50 percent.<sup>21</sup>

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<sup>c</sup> School readiness is the predictive cognitive, social, and emotional foundation for school success.

<sup>d</sup> Estimated as the reimbursement rate for 900 hours of FOCUS star level 5 child care provided to preschool age children

Forty-one percent of Santa Fe's 3-and 4-year olds who are not enrolled in preschool have at least one non-working parent, a rate higher than that of 3-and-4 year olds who attend preschool (35%) and students in 1<sup>st</sup> through 3<sup>rd</sup> grade (29%). If Santa Fe pre-K brought the rate of parental employment for children currently un-enrolled in preschool up to that of preschool or elementary school students, and the newly employed parents worked for only the hours their children attended pre-K, household incomes would increase by between \$1.5 and \$1.8 million annually, an average of \$1,722 per pre-K student per year.

*Table 13 Short-term economic benefits of Santa Fe pre-K*

Benefits	Per Student	Per Year
Value of child care	\$4,503	\$4,349,761
Increased parental employment	\$1,722	\$1,662,846
<b>Total</b>	<b>\$6,225</b>	<b>\$6,012,608</b>

Many families have no choice but to work, even if the majority of earnings must be spent on child care. In low-income households, money spent on child care is money that is not available for other necessities including housing and food. Paying child care also reduces a family's ability to build assets and save for emergencies.

Extended-day pre-K programs are especially beneficial to working parents because they cover a larger portion of the workday and because they can reduce the challenges, both logistic and financial, that some working parents confront in attempting to coordinate part-day pre-K programs with supplementary child care arrangements.

Although the child care benefits of pre-K accrue primarily to families, pre-k also benefits providers by enabling them to provide high quality services to more children, and benefits the state by reducing the need for state-subsidized child care assistance.

### Medium-term (primary grades)

In studies throughout the country, high quality pre-K has been shown to reduce grade repetition, special education placements, and test scores.<sup>22 23 24.25 26 27</sup> Unlike some of the other cognitive and socio-emotional benefits of pre-K, which impact costs indirectly or over long periods of time, the costs of early grade repetition and special education placements are incurred fairly quickly and are readily quantified.<sup>28</sup> The total savings during the primary grades will average \$4,543 per student and \$4.4 million per two-year pre-K cohort.

#### Test Scores

A 2016 evaluation of New Mexico Pre-K by the New Mexico Legislative Finance Committee (LFC) found that the educational benefits arising directly from improved standardized test scores were sufficient to offset the entire cost of half-day pre-K for 4-year olds.<sup>29</sup> <sup>e</sup> Improvements in test scores will save \$3,110 per pre-K student or \$3 million per pre-K cohort.

#### Special Education

Reductions in the number of children placed in special education during the primary grades will save roughly \$1,195 per pre-K student and \$1.2 million per pre-K cohort.<sup>f</sup> Approximately 15.6 percent of SFPS students in kindergarten through third grade receive special education services.<sup>30</sup> Per-child

<sup>e</sup> LFC evaluations found that participation in Pre-K increased third grade SBA reading scores by 3 scaled score points and that 56 percent of Pre-K participants read at grade level compared with 44 percent of their peers. See: New Mexico Legislative Finance Committee. 2016 Accountability Report: Early Childhood Retrieved from: <https://www.nmlegis.gov>

<sup>f</sup> Assumes each placement results in 2 years of special education programming

annual operating expenditures for special education students exceed those of typical students by \$6,894.<sup>31</sup> The LFC estimates that New Mexico **Pre-K** reduces special education placements by 43 percent,<sup>32</sup> a rate similar to those documented for pre-K programs in New Jersey,<sup>33</sup> Chicago,<sup>34</sup> Maryland,<sup>35</sup> and North Carolina.<sup>36</sup>

Grade Retention

Pre-K also generates measurable cost savings by reducing the likelihood that a child will be required to repeat a grade. A vast literature describes the many negative short and long-term consequences of grade retention,<sup>37</sup> all of which have financial consequences for the individual and society. However, the most readily quantifiable public sector cost of retention is the price of an additional year of public education for each child retained. Because the extra year of schooling will not show up as a net increase in total enrollment until the year following the year in which the child would have graduated had they not been retained, the cost savings are expressed as the present value of the cost of an additional year of school 11 years in the future

Most children who repeat a primary grade are held back in kindergarten or first grade.<sup>38</sup> Approximately 4 percent of kindergarten students and 3 percent of first graders are retained.<sup>39</sup> If, as the research suggests, high quality pre-K reduces a child's likelihood of being held back in grades K through 3 by at least 24 percent and potentially over 50 percent, participation in pre-K would prevent between 124 and 259 Santa Fe kindergarteners from being retained. If the cost of grade repetition is simply the present value of an additional year of school (\$5,407 per child), the first year savings from reduced retention attributable to Santa Fe pre-K will be \$238 per student and \$230,341 per two-year cohort.

Table 14 Medium-term economic benefits of Santa Fe pre-K

Costs	Per student	Per cohort
Special Education	\$1,195	\$1,153,976
Grade Retention	\$238	\$230,341
Test Scores	\$3,110	\$3,004,260
<b>Total</b>	<b>\$4,543</b>	<b>\$4,388,578</b>

Other pre-K benefits that manifest during the primary grades include lower reported rates of child maltreatment and less juvenile delinquency, both of which have costs and consequences that persist into adulthood and are therefore addressed in the next section.<sup>40 41</sup>

**Long-term: The Present Value of Future Outcomes**

High-quality pre-K has been shown to generate long term cost savings by reducing child maltreatment and juvenile delinquency, increasing rates of high school completion and post-secondary education, improving physical and behavioral health, increasing lifetime earnings, and reducing rates of crime and incarceration adulthood.<sup>42 43</sup>

In the final report of their four year evaluation, the NIEER research team quantified the long term benefits of New Mexico Pre-K including the discounted lifetime value of better educational outcomes, higher earnings, reduced use of government assistance, better health, and less criminal behavior than otherwise comparable peers who did not receive high quality pre-K services.<sup>44</sup> The estimated per child benefits in Table 15 are the NIEER estimates expressed in 2016 dollars.

Table 15 Long-term economic benefits of Santa Fe pre-K

	Savings	
	Per student	Per cohort

Juvenile crime outcomes	\$2,265	\$2,188,234
College attendance	-\$140	-\$135,295
Adult crime & incarceration	\$1,153	\$1,113,836
Labor market	\$9,615	\$9,287,147
Health	\$1,380	\$1,332,540
<b>Total</b>	<b>\$14,414</b>	<b>\$13,922,704</b>
*Negative value reflects costs of publicly funded higher education		

### Other Benefits

Pre-K likely impacts children, families, and communities in ways that have not yet been measured and may prove difficult to quantify. Central among pre-K's as-yet untallied impacts are the benefits to future generations of breaking the cycle of poverty. By enabling disadvantaged children to enter school with skills and abilities comparable to their more advantaged peers, pre-K improves their chances of succeeding in school, completing college, getting good jobs and raising their own children in prosperous, financially stable households, establishing a virtuous cycle that can persist long into the future.

### Total Economic Returns

Table 16 shows the average benefits and costs per-pupil and per cohort of providing extended-day pre-K to 80 percent of Santa Fe's 3-and 4-year-old children.

Table 16 Extended-day pre-K, total benefits per child and cohort

Benefits	Per Student	2-yr Cohort
Short term	\$6,225	\$6 million
Medium term	\$4,543	\$4.4 million
Long term	\$14,414	\$13.9 million
<b>Total benefits</b>	<b>\$25,182</b>	<b>\$24.3 million</b>
<b>Total cost</b>	<b>\$7,541</b>	<b>\$7.3 million</b>
<b>Net benefits</b>	<b>\$17,641</b>	<b>\$17 million</b>
<b>Benefit cost ratio</b>	<b>3.3</b>	<b>3.3</b>

Santa Fe pre-K would generate net benefits of \$17,641 per child and \$17 million per cohort, a benefit-to-cost ratio of \$3.30 in benefits for every \$1 in costs. Benefits would be distributed across a wide variety of stakeholders. Some benefits would accrue almost immediately while others would accrue over the course of many years.

## VIII. Conclusion

High quality Pre-K programs attack the complicated problem of child poverty on multiple levels. Over one-quarter of Santa Fe's young children, and over one-third of children with unmet need for pre-K, live in poverty. An investment by the Santa Fe community that ensures that these children have access to the high quality pre-K they need and deserve will pay for itself many times over.

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