Pre-Kindergarten: The Key to Saving Failing Schools

Why Pre-K? States across the country have found that universal, voluntary pre-K programs for four-year-olds are *the* most effective way to turn around failing schools and get higher returns on investment on existing education funding.

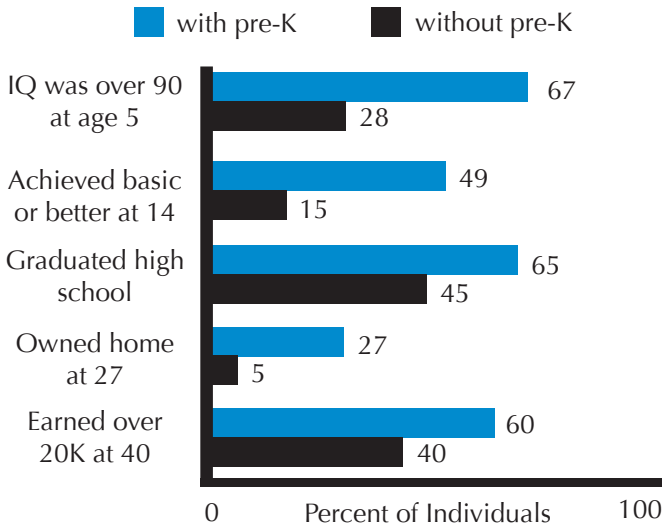
- Studies show that pre-K participants have much greater rates of success: higher achievement test scores, are held back in grades less, and are more likely to attend college.
- Alaska's fledging pre-K program has succeeded in turning around some of the state's lowest performing schools.

After decades of unsuccessful and costly school reform, Alaska has a great need for an investment in this known solution.

- Alaska's pre-K enrollment is far below the national average and as a result, only 20% of our kids enter Kindergarten prepared to learn.
- Our current system is failing to turn around chronically under performing schools and increase our low test scores.

It is senseless to ignore a solution that is proven to boost achievement and could maximize the impact of other reforms and investments in education.

Long-Term Benefits of Pre-K



Source: The High/Scope Perry Preschool Study Through Age 40, Summary, Conclusions, and FAQ, November 2004

The good news? We already have the structure in place to launch a successful program. We have one of the highest rated pre-K programs in the country and have developed ways to adapt it to Alaska's unique communities.

The only thing missing is the funding to expand this valuable service to all of our kids.

How Does Alaska Compare?

	Alaska	Rank	National Average
3 & 4 year-olds enrolled in preschool	40.8%	39	47.3%
4 year-olds in state pre-K	3%	37	28%
4th grade reading (NAEP)	27.5%	44	34.0%
8th grade mathmatics (NAEP)	33.0%	30	34.4%
High school graduation	79.0%	30	81.0%
Postsecondary participation	33.5%	51	55.1%

Source: National Institute for Early Education Research (2013) and Education Week Research Center (2015).

Pre-Kindergarten: The Key to Saving Failing Schools

Alaska's initial attempts at pre-Kindergarten programs have succeeded in boosting academic achievement for kids in Alaska's lowest performing schools. In fact, it is our most successful intervention for turning around schools. Alaska's Pilot Pre-K program began in 2009 and had an immediate and dramatic impact on improving academic achievement: between fall and spring of the first year, the number of children in the top two percentiles for vocabulary more than doubled; by the end of the second year, 78% of students showed above-expected growth in vocabulary.[1] Schools that have invested in pre-K with their Moore settlement funds have had similar results.

And yet, despite hard scientific evidence on the efficacy of pre-K and extraordinary results locally, the state is not increasing its investment in this known solution. Only 40% of Alaskan 3- and 4-year-olds are enrolled in formal pre-K (we're 39th in the nation); even worse, only 3% of Alaskan 4-year-olds are in state funded pre-K, far below the national average of 28%. At a time when Alaska struggles to make improvements on key academic indicators, such as fourth grade reading levels—we're 44th in the nation—it is senseless to ignore a solution that is known to boost achievement and could maximize the impact of other reforms and investments in education.

From small-government Oklahoma, to recession-devastated Michigan, states across the nation have found that investment in statewide voluntary pre-Kindergarten programs produce results in educational success, job development and crime reduction. It is not sustainable to keep pouring money and effort into reforms at the elementary, middle and high school levels without first addressing the foundational skills of our children entering kindergarten. As we prepare our kids with a better base in their early years, efforts at the higher levels will have more of an impact.

Our failure to adopt statewide pre-K is limiting our ability to compete and prosper economically, and threatens the return on investment from the millions of dollars Alaska spends on increasing academic achievement. The science on the matter is clear: we are defying the research by starting our kids in school so late.

For decades, policy makers and school reform leaders have been working to "fix" K-12 education at tremendous expense and with limited success.

Two common flaws in those efforts have been a major focus on closing student achievement gaps long after they surface and an indifference to pre-k, despite its ability to change the trajectory of children's learning and to be the catalyst for higher performance throughout school.

Reforms that rely on children playing catch-up are not a long-term strategy for success.

The Pew Center on States,
Transforming Public Education: A Pathway to a Pre-K-12 Future, 2011

The Case for Pre-K

The field of early learning and brain development in infants and children has changed dramatically over the past decade due to rapid advances in biotechnology, genetics and computer science; this has changed how we view the child's developing mind, and how we view a child's education.

We now know without doubt that vital learning happens before age five. The peak period for language acquisition happens between 8 and 10 months, before infants have even spoken their first word. And the years before kindergarten are a critical period for cognitive, social and behavioral development that lays the foundation for future success in school and life.

We also know that not all children are exposed to environments that help them develop these skills. At 3 years of age, children of college-educated parents have an average vocabulary of 1,200 words; children of working class families average 600; and families in poverty only 300 (in Alaska, only 50% of children come from families where at least one parent has a postsecondary degree[2]). This gap continues to widen before traditional school entry, leaving disadvantaged students up to two years behind by Kindergarten.

And yet the majority of Alaskan children receive no formal education until age 5 or 6. As a result, fewer than 20% of children entering kindergarten in Alaska are prepared in all the ways experts say is important for success in school.[3]

> Skill formation is dynamic in nature. Skill begets skill; motivation begets motivation... The longer society waits to intervene in the life cycle of a disadvantaged child, the more costly it is to remediate disadvantage.
>
> **James J. Heckman**, Nobel Laureate economist

It is no wonder that our teachers struggle to get kids on track and our test scores languish when our kids are entering school so far behind.

Alaska's failure to develop the foundations for learning in our children haunts us throughout their education: Alaska ranks 44th in the country for 4th grade reading levels and 51st in post-secondary attainment,* with just 37.4% of our young adults enrolled in postsecondary education or with a degree (2013).[4] It is a common complaint from businesses that we don't have local talent for jobs, and as a result, Alaskans are missing opportunities for high paying jobs in our leading sectors.

The growing body of evidence shows that pre-K participants have much higher rates of success in their future academic performance. Compared with peers who have not had pre-K, they have higher achievement test scores, they repeat grades far less often, they need less special education, they graduate from high school at substantially higher rates, and are more likely to attend college.[5]

This is why the College Board, which represents over 6,000 of the world's leading educational institutions, lists pre-K for all three- and four-year-olds FIRST among its ten recommendations for increasing college enrollment.[6]

There are pre-K success stories across the country and right here in Alaska:

- **Tetlin School, Alaska Gateway School District, Tok, AK**: Tetlin was ranked the 2nd lowest

** Note that Alaska has made small gains in most categories since 2003, including a 10% rise in high school graduation rates since 2010. It's just that we've been so far behind for so long that we need more dramatic gains to catch up.*

performing school in Alaska in 2012. After a year of pre-K investment from the Moore Settlement, the school moved to 8th, and in 2014 it came within one point of being a 3 out of 5 star school. In 2010 and 2011 Tetlin did not have a proficient student in either language arts or math and did not have a student proficient in Math from 2008-2011. By 2014, they raised the levels to: reading at 64% proficiency; writing at 36%; and math at 31%.[7]

- **Whitley County School District, Kentucky**: began offering pre-K to all four-year-olds in 1996; in 2005, it raised the bar for kindergarten exit because such a high number of former pre-K students were satisfying first-grade entry requirements halfway through kindergarten.[8]

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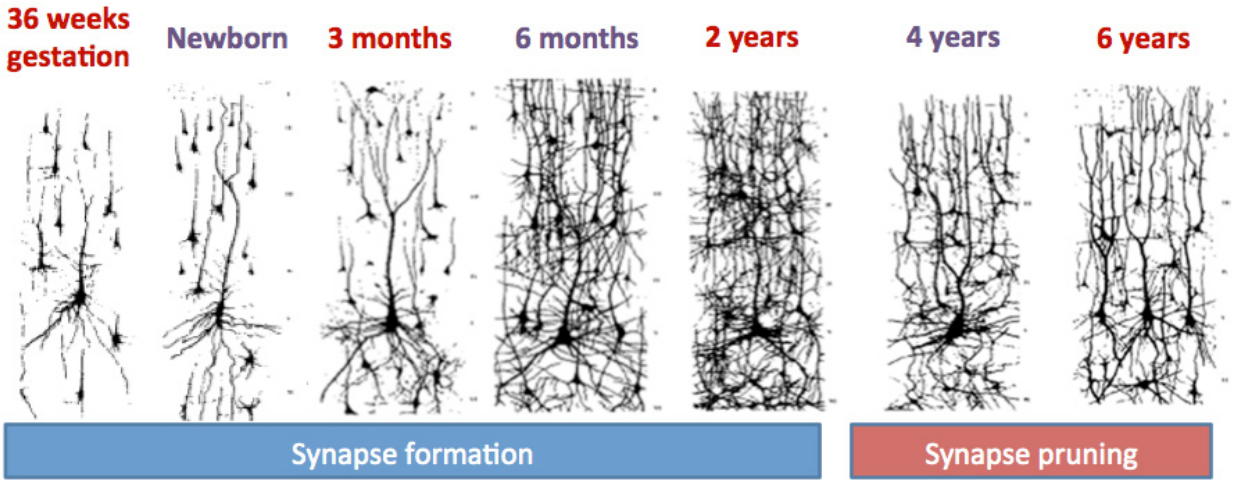
Source: Figures for 2013; graduation is class of 2012. State funded pre-K: National Institute for Early Education Research (2013); all other figures: Education Week Research Center (2015).

What's going on in that baby brain?

New technology that allows us to see brains at work has revealed that the brain is being sculpted by experience during the entire period from early infancy to the end of puberty and it is important that parents and educators understand this.

The trillion or so neurons that we all have in our brains are largely in place at birth, but they can't talk to each other until they form neural connections (synapses) that allow electric impulses to flow between them — think of telephone lines connecting houses. In the first years of life, up to age three, the brains of children are forming connections furiously. By age three, the child has twice the number of connections as the adult brain. Once all the connections are formed, the brain begins to "prune" excess connections; this pruning lasts until the end of puberty. This specific timing of the connecting and pruning process is is why it so important for kids to have exposure to vocabulary and speech patterns in their early years.

From Born to Learn: Language, Reading, and the Brain of the Child, Dr. Patricia K. Kuhl, Co-Director, Center for Mind, Brain, and Learning, University of Washington.



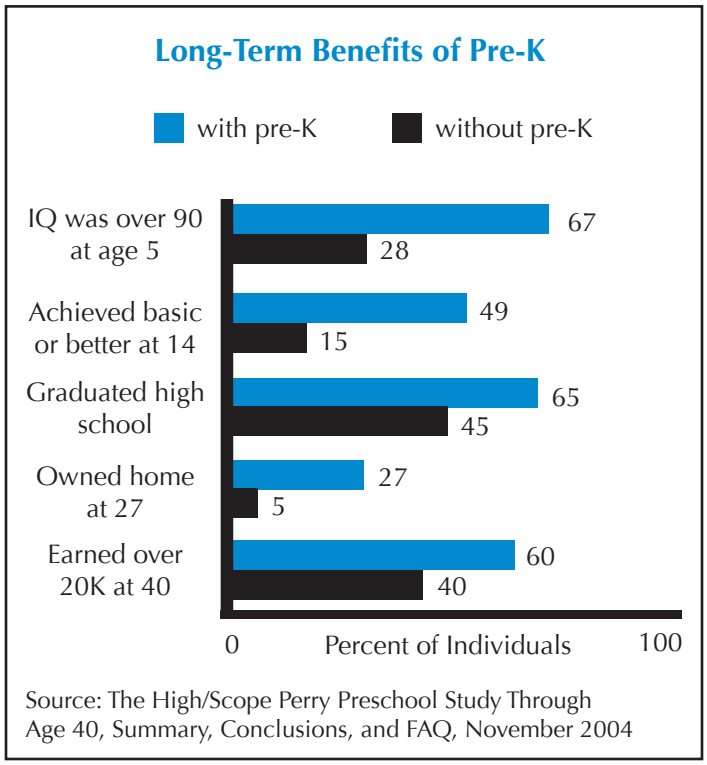
- **Oklahoma**: the state has offered voluntary pre-K for all children since 1998 and has documented significant academic gains across all income and racial groups. Participation in pre-k was a more powerful predictor of children's pre-reading and pre-writing scores than demographic variables such as race, family income, and mother's education level.[9]

Pre-K also has positive long-term effects: a 2005 longitudinal study of the alumni who attended the High/Scope Perry preschool program in Michigan in the early 1960s found that the benefits of the program lasted long into adulthood:

- 60% earned $20,000 or more per year, compared to only 40% of those without a pre-K background;

- 36% had been arrested five times or more, compared with a staggering 55% of those without pre-K.[10]

When you consider that a year of prison in Alaska costs $50,000/person (vs. $6,270/year for pre-K) and that we have over 5,000 incarcerated, reducing arrest rates by 19% would have considerable costs savings.



Source: The High/Scope Perry Preschool Study Through Age 40, Summary, Conclusions, and FAQ, November 2004

What is Pre-K?

High quality pre-K is not day care. And it is not about forcing kids into a rigid academic environment at a younger age. Pre-K doesn't necessarily teach kids how to read, but instead it stimulates brain development and helps children develop the emotional and behavioral skills that are the foundation for formal academic learning.

A high quality pre-K program integrates both the science of child development and academic performance by nurturing cognitive, emotional and behavioral "soft skills," as well as familiarizing children with standard classroom practices. It teaches letter and number recognition, develops vocabulary (recall the 1200 word vocabulary of three-year-olds from college educated families), problem-solving, interactions with teachers and peers and helps children prepare for the world of school in a fun and comfortable environment.

Skilled early learning teachers are able to convert child development research into every day learning by facilitating activities like creative play, solving puzzles, and independent or small group activities. The teachers provide feedback and help children connect what they are doing to specific concepts.

For example, a teacher reads a story to students and then leads an activity in which they carry out interactions similar to those in the book. The teacher supports the activity by providing some guidelines, scenarios and materials in advance. While letting students explore their own creativity, the teacher asks probing questions or extends certain concepts. If designed and facilitated well, this develops both cognitive and soft skills.[11]

While developing emotional and behavioral "soft skills" may seem trivial, it has a direct impact on future academic achievement. A recent analysis of more than 200 school-based social-emotional development programs involving more than 270,000 K-12 students found that, on average, children who took part in such curricula increased their academic achievement by 11 percentage points as compared with nonparticipating peers.[12]

Successful Pre-K Models

The good news is that we don't have to reinvent the wheel. There are many successful pre-K programs across the country, including right here in Alaska. A common theme of successful models is that the programs are voluntary, but open statewide to all districts and income levels. The most critical indicators of success are: high standards for teacher certification and evaluation, small class sizes, and coordination with Head Start and existing services. Without this intentional delivery, pre-K becomes glorified day care and wastes valuable education dollars.

For instance, both Florida and Oklahoma have universal, voluntary pre-K with high enrollment (78% of 4-year-olds in FL and 74% in OK), but Oklahoma has much higher standards, and as a result, greater gains in academic success. Oklahoma's program, which began in 1998, meets 9 of 10 NIEER quality benchmarks; Florida's program began in 2005 and meets only 3 of the 10 benchmarks.

Oklahoma is widely recognized as having one of the most successful pre-K programs in the country. A well-regarded study of pre-K in Tulsa, the state's largest school district, showed that poor students who attended public pre-K were 11 months ahead of their peers in pre-reading skills when entering kindergarten, and near-poor students were 10 months ahead, but even middle-class students were 7 months ahead.[13]

On the other hand, school districts in Florida are seeing abysmal results from the program and are calling for improvements. Data from Manatee County's 2012 achievement tests revealed that only half of the district's third-graders scored at proficiency levels and about a third performed at the lowest level.[14] In Escambia County, in the 2011-12 school year, less than 70% of the kindergartners who attended voluntary pre-K the previous year ended up with the requisite skills measured on the readiness tests.[15]

Nationwide, 28% of four-year-olds were enrolled in state-funded pre-K in 2013. Georgia was the first state to implement statewide, voluntary pre-K, followed by Oklahoma, Florida, the District of Columbia and West Virginia. Illinois and New York are in the process of rolling out statewide programs. Michigan, Mississippi, California and New Jersey do not offer their pre-K to all four-year-olds, but have invested heavily in programs for low- to middle-income families.

In Alaska, as of 2013, 3% of four-year-olds were in state-funded pre-K, 13% were in Head Start, and 6% were in Special Ed pre-K. Of the remaining 78% not enrolled in public programs, about 20% did attend some sort of program, offered by churches, nonprofits or private entities. Unfortunately, over half of Alaskan 4-year-olds have no exposure to pre-K.

Standards for High Quality Pre-K

After years of researching high-quality programs, pre-K experts have identified several common structural characteristics of quality programs. The nonprofit National Institute for Early Educational Research uses these in its an annual Yearbook report, an evaluation of state programs using 10 quality standards.[16] ***Alaska's pre-K standards met all ten benchmarks in the 2013 review***:

1. Teacher degree: Must have a bachelor's degree;
2. Teacher training: Must have specialized preparation in preschool education;
3. Assistant teacher qualification: Must have a Child Development Associate (CDA) or equivalent credential;
4. Professional development: Teachers must receive at least 15 hours of annual in-service training;
5. Class size: May not exceed 20 children;
6. Ratio: May not exceed 10 children per staff member;
7. Early learning standards: Comprehensive standards as specified by the National Education Goals Panel for physical well-being and motor development, social/emotional development, approaches toward learning, language development, and cognition and general knowledge;
8. Comprehensive services: Vision, hearing, and health screenings and referrals as well as at least one service such as home visits, parent education, or nutrition information;
9. Nutrition: Provision of at least one meal;
10. Monitoring quality: all sites are visited to assess program quality at least once every five years.

As pre-k has become a part of the fabric of the community environment, we have found that everyone loves it. Indeed, in the most unlikely of places–*a low-tax state which is one of the country's reddest*–we have continually expanded public and private investments in pre-school and early education. It galvanizes and brings people together in ways that few public policies seem to do.

Steven Dow, Executive Director of CAP Tulsa, a community based organization in establishing pre-K as state policy in Oklahoma in 1998.

Pre-K in Alaska

While quite small, Alaska's Pre-K programs have been incredibly successful. As mentioned in the introduction, pre-K is our most successful intervention for turning around schools in Alaska and the 2012 evaluation of the Alaska Pilot Pre-Kindergarten project (FY10 and FY11) found dramatic gains in vocabulary.

It also found that at the end of year two, all but one site showed gains on the Early Childhood Environment Rating Scale-Revised Edition (one of the metrics used for the evaluation). The districts in the Pilot began at minimal levels on the scale and ended with eight sites approaching excellent or above good, four approaching good, and one above minimal.[17]

These dramatic results are possible because Alaska has built a high quality program, based on national best practices, such as high standards for teacher training and evaluation and options to partner with existing preschool and child care programs. Alaska is one of only four states to meet all ten National Institute for Early Education Research benchmarks in 2013.

Direct State Spending on Pre-Kindergarten

Prior to the current pre-K program, from FY05 to FY08, the Alaska Community Preschool Project, a federally-funded model preschool project, served approximately 250 young children per year in seven communities around Alaska.

In 2009, the Alaska Legislature provided the Department of Education and Early Development with $2M in general funds for the Pilot Pre-Kindergarten Project for FY10 and FY11, modeled on the lessons learned from the previous program. Funding was awarded to the top six out of twelve applicant districts, based on a competitive grant process. The six participating school districts—Anchorage, Juneau, Nome, Bering Strait, the Lower Kuskokwim and Yukon-Koyukuk—served 200 students in year one and 248 in year two.

Additionally, two chronically under performing districts, the Lower Yukon and Yupiit School Districts, were awarded funds for early childhood specialists to coordinate and enhance existing early childhood programs for 210 children. The majority of the Pilot Pre-K programs offer half-day programs and operate within a public school or Head Start classroom; the programs also provide outreach to families preferring in-home care.

As a result of the success of the pilot program, the project became permanent in FY12 and was expanded to $2.5M for 345 students in eight districts. Unfortunately, the program was cut back to $2M in FY14 (Alaska was one of only 3 states to cut pre-K funding; 30 raised levels and 7 maintained).[18] The program currently costs $6270 a year per student.

Future funding for the program is undecided, but at the time this paper was published, the Alaska

Pre-K Program remains in the FY16 budget for $2M and there is a bill (HB36) that proposes the establishment of a statewide voluntary pre-K. A similar proposal from the previous session estimated that the cost to provide universal pre-K in Alaska would be about $46M a year.[19]

The Moore Settlement

In addition to the Alaska Pre-K Program, 29 schools offer pre-K using funds from the Moore Settlement, which provides funding to under performing Alaska school districts to address low student achievement. The Moore Suit of 2004 challenged the adequacy of the educational system under the Alaska Constitution's guarantee of "a system of public schools open to all children," and in 2007, Judge Sharon Gleason for the first time defined the constitutional obligation and narrowed the case to the State's failure to support and oversee chronically under performing schools.

In January 2012 the State of Alaska settled with Citizens for the Educational Advancement of Alaska's Children (CEAAC) on the Moore case and created an $18 million fund for four programs (early literacy, target grants for proven educational strategies, teacher retention, and high school graduation exam support) over an anticipated three years. The Moore Collaborative Committee allocates the money, with three voting members appointed by the State and three by CEAAC. The

programs all end at the conclusion of the 2016-17 school year unless extended by action of the state.

Under the settlement agreement, the 40 schools with the lowest performance are eligible for funds to begin or expand existing Early Literacy Programs or a Two-Year Kindergarten. 29 schools in seven school districts are currently participating: Bering Strait, Lower Kuskokwim, North Slope Borough, Northwest Arctic Borough, Yupiit, Alaska Gateway, Yukon Flats and Yukon-Koyukuk.

The program launched cohorts in the 2013-14 and 2014-15 school years, and an upcoming application period to launch the final cohort for the 2015-16 school year aims to reach the remaining schools in the settlement. An evaluation will not be completed until the end of the program, but recent test results show the program is successful—as evidenced by the earlier story from Tetlin School in the Alaska Gateway District.

The Moore program is unique in that it allows school districts to tailor their pre-K to their community's specific needs and existing resources. For instance, the Bering Strait School District has spent the past 15 years fostering a relationship with its local Head Start program and did not want to waste that effort by starting an entirely new program. They used their funds to hire certified teachers (employed by the district) to join the Head Start classes to enhance learning and bring the program up to statewide pre-K standards.

Communities that do not have strong existing pre-K programs, like the Northwest Arctic Borough School District, are able to use their funds to create a two-year Kindergarten program within their existing school framework. Other districts have a mix of pre-literacy and two-year Kindergarten programs, depending on community need.

Federally Funded Pre-Kindergarten in Alaska

Head Start was created in 1965 as part of the "War on Poverty" to boost the school readiness of low-income children. The program provides preschool education; medical, dental, and mental health care; nutrition services; and helps parents foster their child's development.

Head Start enrollment in 2013 included 13% of all Alaskan four-year-olds; however the program is underfunded and the Alaska Head Start Association estimates that more than 50% of the children who qualify are not able to get in the program. It does not have the same high standards for teacher certification that have been identified as the key to success for pre-K, but efforts on a national level aim to bring it into alignment with pre-K best practices and allow flexibility for states to partner with Head Start as they expand their state programs.

Special Education Preschool is specifically designed to meet the educational and developmental needs of children with disabilities, or those experiencing developmental delays. Services for children (ages 3-5) are provided free of charge through the public school system as required by the Individuals with Disabilities Education Act. 6% of Alaskan four-year-olds are enrolled in Special Education Preschool.

Title 1 Preschool: schools or districts that qualify for Title I funding (federal formula-funding for schools with high numbers or high percentages of children from low-income families) can use their funds to improve cognitive, health, and social-emotional outcomes for eligible children below the age of Kindergarten entry. The use of Title I funds for a preschool program is a local decision based on the needs of its eligible students and the most effective use of those funds. There are over 250 Title 1 schools in Alaska and a handful offer preschool programs.

Other Statewide Early Learning Programs

The state also provides funding for several programs that provide early learning resources to the families of infants and toddlers. This is important because we know that valuable learning happens from birth to five, before most kids enter school.

Parents are children's first teachers and have an opportunity and responsibility to prepare their kids for school, but they need adequate resources and support to succeed.

Parents as Teachers (PAT) is an early childhood parent education and family support program designed to empower parents to give their children the best possible start in life. Home visits and group socializations are offered to families in 19 communities across the state. PAT is administered by RurAL CAP and is supported by community agencies, Native organizations and community Elders. 2013 PAT Accomplishments:

- 441 children and 42 prenatal women served
- 211 PAT parents reported an expanded understanding of their role as educators in the home
- 210 PAT parents reported improved parenting skills including skills related to positive discipline and development
- 84 educators completed the Parents as Teachers Foundational Certification

The Ready to Read Resource Center is a project of the Anchorage Public Library, with funding from the Alaska State Library. The Center, which has partners in over 130 communities, loans its 250 reading kits free of charge anywhere in the state (via mail) to parents/caregivers as well as to organizations that serve infants and toddlers (child care providers, libraries, health clinics, faith-based organizations), and provides early literacy workshops. In many small communities, libraries are volunteer-run and child care is provided by family members—people not necessarily trained in child development concepts—so the Center provides support and materials to ensure that all communities in Alaska have resources to provide early literacy foundations for their children.

The Imagination Library, hosted by the nonprofit Best Beginnings, mails a free, high-quality, brand-new book each month to children from birth to age 5 who live in communities that support the program. The first book for every child is The Little Engine That Could by Watty Piper. Funding is provided through DEED and several nonprofits and Alaska Native organizations. 41% of the estimated 53,996 children in Alaska under age 5 are enrolled in Imagination Library through 111 communities and receiving a book in the mail each month.

Conclusion

Decades of costly education reform efforts in Alaska targeted at older children have not delivered the results we need. Scientific evidence and positive results right here in our own state prove the effectiveness of pre-K for turning around failing schools. We are denying common sense and missing out on an opportunity to improve our schools by failing to invest in pre-K.

Alaska needs a universal, voluntary pre-K program for four-year-olds. This is the single most important thing we can do to turn around academic achievement and get a higher return on investment on our existing education funding.

Luckily, we have the tools in place to launch a successful program. We already have one of the most rigorous programs in the country and we have innovated ways to maintain that rigor while allowing communities to tailor their oferings to their local needs.

Alaska should continue to fund our existing pre-K programs, so we don't lose the gains we've already made. The next phase should be to expand outward to ensure that all of our lowest performing schools have sustainable pre-K programs in place. Alaska's ultimate goal should be that high quality pre-K is available to every four-year-old in Alaska.

We must not let today's economic uncertainty undercut our chances for long-term success. Pre-K-12 is a vision that can help us realize ambitious goals for your children's development and our state's future leadership.

Produced by the Citizens for the Educational Advancement of Alaska's Children, February 2015.

Founded in the late 1990s, CEAAC worked for a decade to address school inadequacies in rural Alaska schools through the courts. Today, CEAAC uses research, policy development and public advocacy to solve school performance issues in rural and urban areas. CEAAC is the only nonprofit organization in Alaska focused on at-risk students and struggling schools.

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