# Investing in Alaska's Young Children

## **Benefits of Investing in Early Childhood**

### Early Experiences Shape the Brain

Science tells us that during the first three years of life the brain undergoes extraordinary development as children are acquiring the ability to think, speak, learn and reason.

At birth, a child's brain has close to all of the neurons it will ever have. The brain doubles in size in the first year, and by age three it has reached 80 percent of its adult volume.

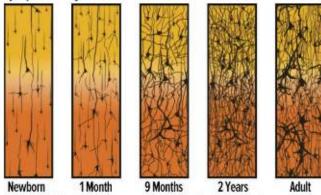
#### **Brain MRI Images**



Source: Pediatric Milli Data Repository, NIH MRI Study of Normal Brain Development; 2012.

More importantly, the early years are the most active period for establishing the neural connections (i.e. synapses) that comprise our brain architecture. In fact, more synapses are formed during these early years than any other time.

#### Synapse Density Over Time



Source: Adapted from Carel; JL. The postnetal development of the human corebral cortex. Cambridge, MA: Harvard University Press; 1975.

Brain architecture is constructed through an ongoing process that begins before birth and continues into adulthood. As it emerges, the quality of that architecture establishes either a sturdy or a fragile foundation for all the capabilities and behavior that follow.

### Prevent the Achievement Gap

In Alaska, about 7,000 children repeat a grade between kindergarten and high school. Gaps in knowledge and ability between disadvantaged children and their more advantaged peers open up long before kindergarten, often persist throughout life, and are difficult and costly to close.

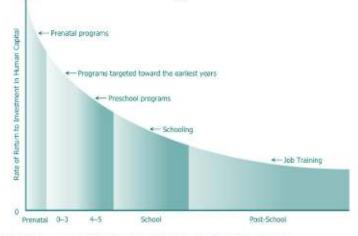
It is far more expensive to intervene during the K-12 years than it is to make an early investment. Investing in quality early childhood programs is more effective and economically efficient than trying to close the gap later on.

### Smart Investment, Big Return

Research shows that high quality birth-to-five programs for disadvantaged children can deliver a 13% per year return on investment.

Dr. James Heckman, a Nobel Memorial Prize winner in Economics, found that early nurturing, learning experiences, and physical health from birth to age 5 greatly affect success or failure in society.

The most economically efficient time to develop these skills and abilities is in the very early years when developmental education is most effective. Start at birth, coordinate services into comprehensive early childhood programs and achieve greater economic and social gains.



# 2017 Investment Priorities

### **Quality Early Care**

 Reinstate Child Care Assistance by \$500,000 to ensure Alaska's working families have access to affordable quality child care.

 Maintain investment in Head Start and Pre-K programs to advance early learning opportunities for children.

### **Strengthening Families**

 Support Parents as Teachers in strengthening parent knowledge of early childhood development and improving parenting practices.

 Maintain investment in Infant Learning Programs to continue to provide essential early intervention services to children with developmental disabilities/delays and children who experience abuse and/or neglect.

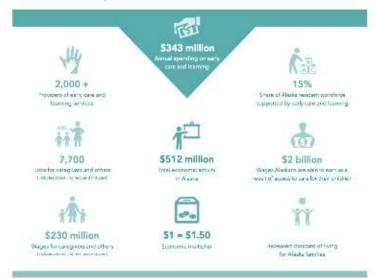
### Community Engagement and Early Literacy

 Maintain investment in Best Beginnings that leverages private sector investments to provide Imagination Library books to 35% of Alaska children under 5 and promotes parent and community engagement in early learning and literacy.

### Generate Economic Activity and Growth

Early care and learning activity in Alaska creates jobs for thousands of Alaskans; allows thousands more to participate in the workforce because care is available; and generates millions of dollars in spending by households and the public sector.

This spending generates even more economic activity through related expenditures in communities throughout the state. Investment in families with young children is a social, economic, and education imperative for the future success of Alaska.



### Strategy for Long-term Prosperity

According to a statewide survey of 750 Alaskans conducted in September 2015, an overwhelming majority of Alaskans believe state funding for early childhood programs is important for the state's long-term prosperity.

Nearly three-quarters of respondents (71%) said that in current tough economic times, they support investment of state funds in early childhood programs as a strategy for ensuring Alaska's long-term prosperity.















