

Some various support materials have been provided, but other more extensive materials were used in the research for this bill. Many of them reflect similar or the same outcomes and reference the same reports. All are available in their full text upon request. Here is a full list of the reports (the first seven are included in the bill packet):

1. Anchorage Daily News Editorial "Alaska Needs a Plan to Make Public Schools Better"
2. Legislative Research Report: The Value of Pre-Kindergarten Programs
3. State and Federal Funding for Head Start Program FY11 and Governor's Proposal for FY12
4. 2009 ISER Report: "The Cost of Crime"
5. Step Up Early Ed & Child Care: Economic Impact Report
6. UNC Child Development Institute: "Poverty and Early Childhood Intervention"
7. Science Daily: "Enhanced Early Childhood Education Pays Long-Term Dividends in Better Health"
8. Legislative Research Report: Head Start Participation and Declining Services
9. Alaska Governor's Summit on Early Learning (2007)
10. Parents as Teachers Research and Program Quality
11. Alaska Ready to Read, Ready to Learn Task Force Report & Recommendations
12. The Parents as Teachers Program: Its impact on School Readiness and Later School Achievement
13. ADN Our View: Alaska Needs a Plan to Make Public Schools Better
14. The State of Preschool 2007
15. The State of Preschool 2007: Alaska State Profile
16. The High/Scope Perry Preschool Program: Cost & Benefits Analysis
17. DEED House Finance Subcommittee Responses
18. AK Pilot Pre-K Project-Evaluation Year One

Our view: Alaska needs a plan to make public schools better

Quality gap

(11/16/08 21:39:10)

Alaska has handicapped its young children by being one of only 12 states with no state-funded education system for pre-kindergarten students.

Here's another gloomy statistic at the other end of the public education system: Only about two-thirds of Alaska high school students graduate in four years, compared with the U.S. average of three-fourths graduating.

And of Alaska students who do graduate, only a third start college. Nationwide, nearly half of high school graduates are college-bound. So what's the plan to improve the odds for Alaska kids?

There isn't one -- but state commissioner of education Larry LeDoux wants to change that. Last week, the state sponsored the first education summit in many years, engaging about 400 parents, students, educators, university officials and others in a discussion about what's needed.

Friday they came up with about 50 goals, including offering state-funded preschool to the families of every 3-, 4- and 5-year-old in Alaska.

A sampling of other goals:

 Evaluating pre-school programs to make sure they're adequately preparing children for school.

- Establishing a statewide telecommunications network, with equal access for all students.
- Defining what a student needs to know to be a skilled worker or a college student -- not just the minimum standards the state now sets for handing out high school diplomas.

Meeting these goals would take school funding to another level. A much higher one, though no one made any estimates.

The true test of Alaska's commitment to our young people will not be whether a group of smart, dedicated people can produce an admirable list of goals, but whether the state administration and the Legislature will support them financially.

We can't say right now which reforms the state should adopt and pay for and which not.

They need to be thought through. The list will go up on the state Web site, be adopted and perhaps refined by the state Board of Education, and be publicized so that anyone in Alaska can comment.

But it's worth noting that other states, not as wealthy as ours, do offer state-funded pre-school, for example.

And it's clear that Alaska isn't doing enough to ensure the success of its students. If it were, we wouldn't have such abysmal graduation rates.

BOTTOM LINE: Alaska needs to take a hard look at steps that will improve public education, like state-funded pre-kindergarten.

Legislative Research Report: The Value of Pre-Kindergarten Programs (2006)

Executive Summary as prepared by Representative Kawasaki

According to the National Education Association (NEA), children who attend high quality prekindergarten programs are better prepared for kindergarten, have better language and math skills, better cognitive and social skills, and better relationships with classmates. In addition they note that children who attend prekindergarten are less likely to drop out of school, repeat grades, need special education, or get in trouble with the law when they are older. The NEA advocates for universal high quality prekindergarten programs because it "represents one of the best investments our country can make."

In the most recent evaluation of the High/Scope Perry Preschool Project students, the age of which was about 40, the High/Scope Education Research Foundation was able to interview 97 percent of the study participants still living. Some of this study's major findings are as follows:

- A greater percentage of the group graduated from high school than the non-program group
- The group who received high-quality early education on average outperformed the non-program group on various intellectual and language tests during their early childhood years, on school achievement testes between ages 9 and 14, and on literacy tests between ages 19 and 27
- A greater percentage of the group who received high-quality early education was employed at age 40 than was the non-program group
- The group who received high-quality early education had median annual earnings more than \$5,000 higher than the non-program group
- A greater percentage of the group owned their own homes
- They had fewer arrests and fewer arrests for violent crimes
- Taxpayers received \$17 in benefits for every dollar spent on high-quality early education programs

The Abecedarian Early Childhood Intervention Project assessed their students at age 21 with the following results:

- School districts saved more than \$11,000 per child because participants are less likely to require special or remedial education
- Higher cognitive test scores
- Higher academic achievements in reading and math
- They were more likely to attend a four-year college
- Taxpayers received \$4 in benefits for every dollar spent on high-quality early education programs



LEGISLATIVE RESEARCH SERVICES

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Memorandum

TO: Representative Bryce Edgmon
FROM: Susan Haymes, Legislative Analyst
DATE: February 17, 2011
RE: State and Federal Head Start Funding
LRS Report 11.166

You asked for the level of state and federal funding for the Alaska Head Start program for FY11, and the Governor's proposal for FY12.

Although state funding for the Head Start program remains constant under the Governor's proposed budget for fiscal year 2012, an anticipated decrease of more than \$3 million in federal funds could reduce the program's overall funding budget. The following table shows state and federal funding for FY11 and proposed funding for FY12.

State and Federal Funding for Alaska Head Start, FY11-FY12

Funding Source	FY11 (authorized)	FY12 (proposed)
Total Federal		
Direct Funding to Grantees ¹	\$ 35,000,000	\$ 32,000,000
Funding to the State	\$ 125,000	\$ 125,000
State	\$ 7,292,600	\$ 7,292,600
Total Federal and State	\$ 42,417,600.00	\$ 39,417,600.00

Notes: The vast majority of federal funds go directly from the federal government to organizations that are Head Start grantees; however, a small amount of funding goes to the state to facilitate collaboration at the state, regional, and local levels around early childhood education issues.

(1) The \$35 million figure for FY11 is an approximate amount. The FY12 figure reflects a projected decrease of at least 3 million in federal funds to Head Start grantees. Alaska grantees could see a decrease as early as March 2011.

Source: Paul Sugar, Education Specialist, Department of Education and Early Development, 907.465.4862.

We hope this is helpful. If you have questions or need additional information, please let us know.



THE COST OF CRIME: COULD THE STATE REDUCE FUTURE CRIME AND SAVE MONEY BY EXPANDING EDUCATION AND TREATMENT PROGRAMS?

By Stephanie Martin and Steve Colt

The cost of crime in Alaska is among the fastest-growing in the nation. The state justice system has nearly doubled since 1981. The crime rate has dropped only about 30%. The cost of crime is a drain for the state, given the pattern shown in Figure 1. It's an effort to hold down the number of inmates that leads to rising costs—while at the same time keeping crime rates down and using tax dollars effectively?

Several years ago, the Alaska Department of Corrections asked ISER to project growth in the number of inmates and the associated costs—and then to determine if the state could reduce that growth by expanding education and treatment programs for people already in prison. The answer is yes, if nothing else. Alaska currently spends \$3,200 a year for such programs, but they aren't reaching the most people who might benefit from them.

There are two kinds of programs. First, there are those already in prison or jail that have the most potential to reduce crime in the next 20 years. That's about two-thirds of the most people. To analyze which programs have the most potential to reduce crime and save the state money, we worked with the Alaska Criminal Justice Working Group and the Washington State Institute of Public Policy. That institute did a similar analysis for Washington state and provided us with data it collected from program evaluations nationwide (see back page). What did our study show?

Also, most of those released committed misdemeanors (Figure 2). Those who commit the most serious crimes serve long sentences and make up a small share of those released in any given year. To analyze which programs have the most potential to reduce crime and save the state money, we worked with the Alaska Criminal Justice Working Group and the Washington State Institute of Public Policy. That institute did a similar analysis for Washington state and provided us with data it collected from program evaluations nationwide (see back page). What did our study show?

Figure 3. Potential Effects, Costs of, and Savings from Expanded Prevention or Intervention Programs



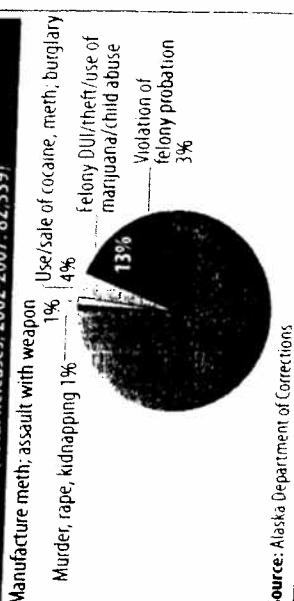
Current annual state spending on prison programs
Additional spending every year
By 2030, expanded programs could keep 1 in 10 people out of prison who would otherwise be there
Cost of expanded programs*

Figure 1. Percentage Changes in Alaska Crime Rate, Spending for Justice System, and Number of Inmates, 1981-2007



*Assumes 2% annual inflation through 2030

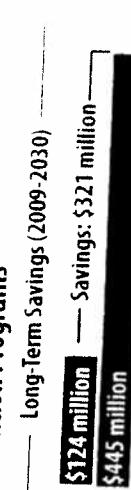
Figure 2. Who Gets out of Jail or Prison in Alaska?
(Total Releases, 2002-2007: 82,339)



Source: Alaska Department of Corrections

- With no change in policies, the number of Alaska inmates is likely to double by 2030, from 5,300 to 10,500.
- If the state spent an additional \$4 million a year to expand programs it already has, the prison population in 2030 might be 10% smaller than projected—about 1,050 fewer inmates.
- The state would spend about \$124 million for expanded programs through 2030 but would avoid \$445 million in costs—a savings of \$321 million. It would save money by incarcerating fewer people and by delaying prison construction costs. (Figures 3 and 8).
- Education and substance-abuse treatment programs—in prison, after prison, and instead of prison—save the state two to five times what they cost and reach the most people. Programs for teenagers are also very effective at reducing crime and saving money, but they reach fewer people.

Figure 3. Potential Effects, Costs of, and Savings from Expanded Prevention or Intervention Programs



*Assumes 2% annual inflation through 2030

but excluded other programs from our final list. The Criminal Justice Working Group decided that a program to reduce crime elsewhere, wouldn't be feasible in Alaska at this time. For other programs, there was available evidence to judge how effective they were in reducing crime, or the available evidence didn't seem sufficient to be largely ineffective.

How Do the Programs Compare?

- The page shows, expanding programs to serve the selected number of inmates 10² by 2030. Figures show the various programs contribute to costs, savings, and changes in the number of Alaskans behind bars.
- **Substance-abuse treatment programs for inmates** are the **most effective** at what they cost, reduce recidivism by about 20 times, and can reach the most people.
- **Education and job training programs for inmates** are the **most effective** at what they cost, reduce recidivism by about 18 times, and can reach the most people.
- **Family intervention** is the **most effective** at what they cost, reduce recidivism by about 15 times, and can reach the most people.
- **Aggression replacement training** is the **most effective** at what they cost, reduce recidivism by about 10 times, and can reach the most people.
- **Substance-abuse treatment programs for children** are the **most effective** at what they cost, reduce recidivism by about 5 times, and can reach the most people.
- **Head Start** for young children saves 6 times more than it costs and reduces future crime among participants by about 16 percentage points (from 38% without the program).
- **Transition out of prison for inmates with mental health disorders** is the **most effective** at what they cost, reduce recidivism by about 4 times, and can reach the most people.
- **Adult residential treatment for substance abuse** is the **most effective** at what they cost, reduce recidivism by about 3 times, and can reach the most people.
- **Sex offender programs to reduce recidivism but are so expensive they produce no savings** is the **least effective** at what they cost, reduce recidivism by about 2 times, and can reach the most people.

• **Programs for juveniles** are the **most effective** at what they cost, reduce recidivism by about 10 times that much by keeping kids out of prison. They serve only a subset of the population of 12- to 17-year-olds.

• **Transition programs for people with mental health disorders** are extremely effective, add about \$2,000 per person to inmate costs, and save about four times that much. But the programs currently serve very few people and can't readily be expanded to serve large numbers.

• **Programs that treat inmates for substance abuse add about \$2,000 a person to inmate costs, but over time save about twice as much.** They are effective, but can't readily be expanded to reach all the people who need them.

• **Education and job training programs in prison add about \$1,000 to inmate costs, but they reach the most people and save about four times more than they cost.** Because they are offered in every facility, they can easily be expanded and can reach more people. (Reductions in the number of inmates as a result of the sex-offender treatment program are also included here, but are only one or two people a year.)

• **Programs that keep people out of prison save the state money right away, because they cost much less than the \$44,000 per person the state spends to lock people up.** They include therapeutic courts for substance abuse and mental health disorders, electronic monitoring, and residential substance-abuse treatment.

Figure 6. How Effective Are Various Programs at Saving Money and Reducing Crime?

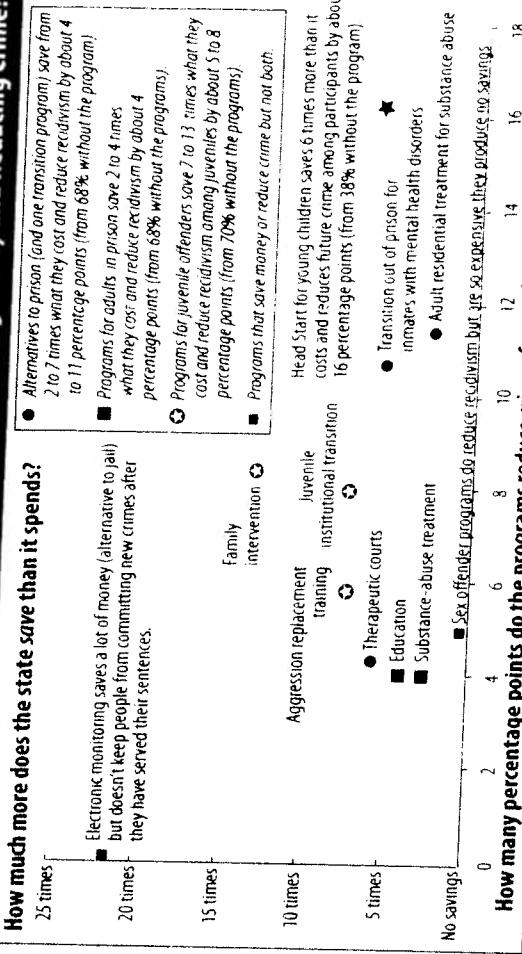
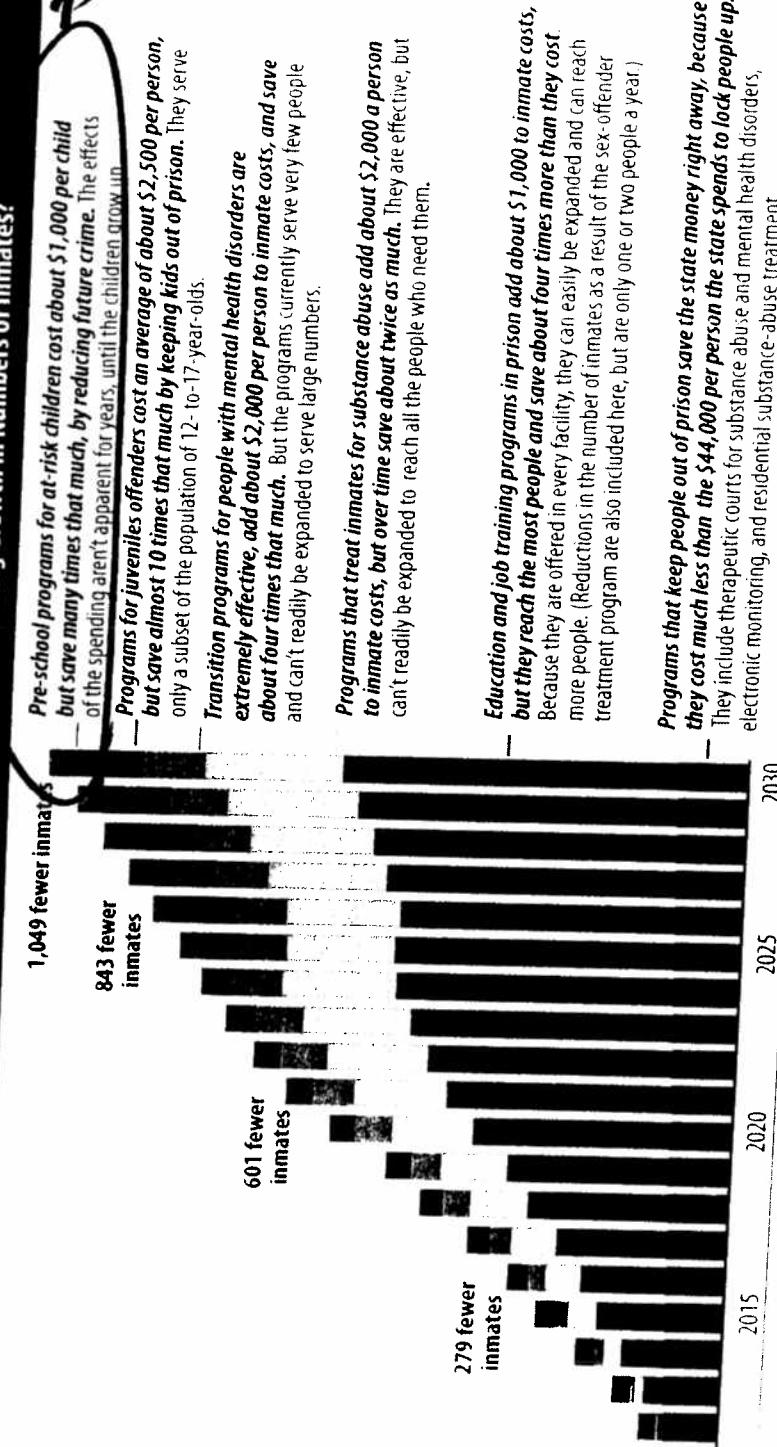


Figure 7. How Would Expanding Specific Programs Contribute to Reducing Growth in Numbers of Inmates?



A SUMMARIZED ECONOMIC IMPACT REPORT ON
EARLY EDUCATION AND CHILD CARE SERVICES IN
ALASKA

step^{up} early ed & child care

Based on the McDowell Group Report July 2006

PREPARED FOR:
SYSTEM FOR EARLY EDUCATION DEVELOPMENT (SEED)
UNIVERSITY OF ALASKA SOUTHEAST



step up early ed & child care

"I believe that high quality early childhood programs are critically important for the health and well-being of our community and they are especially important for the health and well-being of our children.... What can never be forgotten or taken lightly is that these programs provide a proven economic benefit to the organizations they serve. It is important that we recognize that. Research has shown that organizations who offer these services on-site for their employees retain these employees for an additional five years. The value of keeping these employees for this extended amount of time is immeasurable, and as a leader of an organization with more than 4,000 employees, I can tell you that recruiting talent is expensive, difficult and time consuming. Keeping our talent in the first place is without a doubt the best way to ensure we can sustain and live out our mission at Providence, and I'm grateful for the role our Center for Child Development plays in doing that each day."

3. Alaskans across the state place a high priority on state funding for early education and child care

Until recently, there was no data specific to Alaska to demonstrate how the welfare of our youngest community members impacts the entire state – both in the short term and long term. But thanks to this study commissioned by the System for Early Education Development (SEED) and completed in July 2006 by McDowell Group, there is now local information to combine with the knowledge learned from national studies to provide an accurate baseline. What the statistics demonstrate is that Alaska lags behind much of the country in providing quality early education and child care to our residents. And while there are certainly entities working hard throughout Alaska to provide quality care for our children, Alaska remains one of only 11 states without a state-funded, statewide early childhood education system.

STUDY FINDINGS ARE DETAILED ON THE FOLLOWING PAGES:

Demographics Pg. 2
The Economic Impact on Alaska Pg. 3

The Early Learning and Child Care Sector Pg. 5
Impact on Alaska Families Pg. 7
Alaskans' Support Funding Pg. 9



Why should you care about the availability of quality early education and child care in Alaska? Because stepping up early education for our children is critical for all of us.

- ② LET US STEP YOU THROUGH THE FACTS.
- ③ Early childhood education and child care play a critical and measurable role in Alaska's economy

3. Alaskans across the state place a high priority on state funding for early education and child care

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SCOPE OF THE ALASKA STUDY

The purpose of this study is to assess the economic impacts of early education and child care services on Alaska's economy. This study focuses on state and local government, private sector, and child care facilities. It is a comprehensive assessment of the services, and the costs, of early education and child care for Alaska families to care for their children.

This study also examines research findings of early education and child care programs from across the country, and the broader societal economic benefits stemming from quality child care services. A key component of this project was a telephone survey of 2,700 randomly selected households. The primary purpose of the phone survey was to collect information on the types of child care services Alaska families use and to understand how those services support child care services for children. This study also includes an analysis of child care services, the services and costs of state government funded early education and child care services.

ALASKA WORKING PARENT DEMOGRAPHICS

To better understand the data, a chart is first presented showing where five percent of working parents in Alaska live. In 2005, Alaska's population included 20,000 children under the age of 5. According to the Alaska Department of Labor and Workforce Development (DLWD), of these children, 38 percent of fathers and 61 percent of mothers were living with their children. Of all children, 56 percent were in the labor force, whether from full-time dual income or single-parent families. These children resided in 9,400 Alaska households, all of which were patterned to reflect the size of the state.

Detailed look at the 39,400 children under the age of six, where all available parents are in the workforce



LIVING WITH SINGLE MOTHER IN LABOR FORCE
23%

LIVING WITH TWO PARENTS, BOTH IN LABOR FORCE
65%



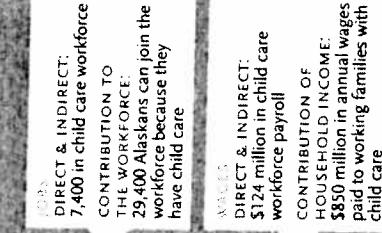
LIVING WITH TWO PARENTS, BOTH IN LABOR FORCE
12%

ALASKA IS ONE OF ONLY 11 STATES WITHOUT A STATE-UNDED, STATEWIDE EARLY CHILDHOOD EDUCATION SYSTEM.

Step 3 **QUALITY CHILDHOOD EDUCATION AND CHILD CARE PLAY A CRITICAL AND MEASURABLE ROLE IN ALASKA'S ECONOMY.**

THE ECONOMIC IMPACT ON ALASKA

Investments in quality early learning and child care, quality education, and child care bring a triple return economy. The economic development of Alaska's early education and child care sector creates jobs for thousands of Alaskans, generates billions of dollars in spending by households and governments, and creates a more educated, more competitive labor force and family income.



IMMEDIATE IMPACT OF QUALITY EARLY EDUCATION AND CHILD CARE

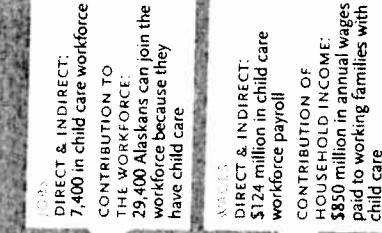
Child care providers make it possible for 29,400 Alaskans to enter the child care labor force. For each household with children under six years of age, there are 1.5 adults in the labor force. The 29,400 Alaskans that work in the workforce because child care services are available to them account for 94 percent of the Alaska resident workforce. If these working parents also account for 93 percent of child care resident wages, their total annual wages would be just under \$850 million. This is more than an average of \$29,100 per family in additional Alaska annual income, largely made possible by child care services, in equal to approximately 10 percent of Alaska's mean family income in labor.

Other data suggest a similar household income impact related to adding a second income position. In 2001, Median Family income for families with one wage earner was \$31,300. Median family income for families with two wage earners was \$77,19, a difference of \$45,800. This analysis assumes that the typical parent who has a second wage earner because child care services are available to him or her earns the same wage as the average Alaska worker. This may or may not be true given the demographics of families with young children. Nevertheless, it is clear that the availability of child care has major implications on income for Alaska residents in general, and on family household income in particular.

Step 4 **QUALITY CHILDHOOD EDUCATION AND CHILD CARE PLAY A CRITICAL AND MEASURABLE ROLE IN ALASKA'S ECONOMY.**

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IMMEDIATE IMPACT OF QUALITY EARLY EDUCATION AND CHILD CARE

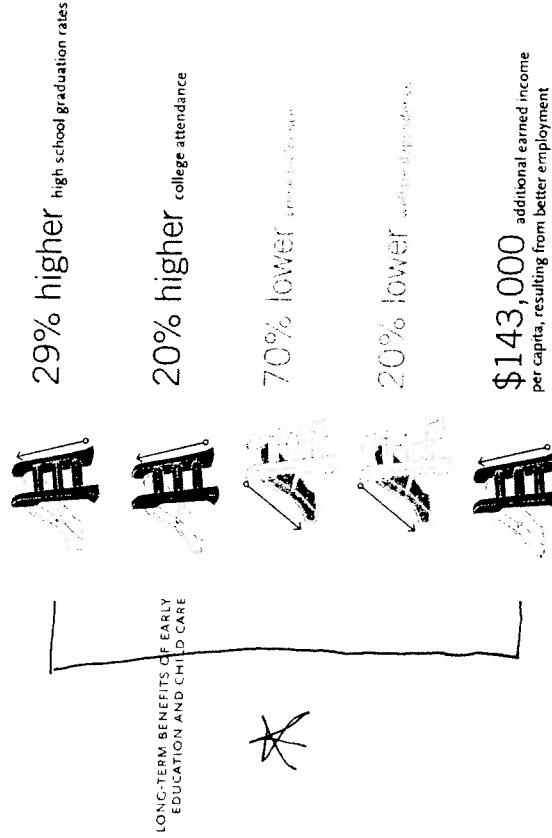
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Step 1 →

LONG-TERM ECONOMIC IMPACTS OF QUALITY EARLY EDUCATION & CHILD CARE
 A host of studies have demonstrated a positive economic impact of early childhood education and child care development on the lives of Alaskans. One of the few studies focuses on Alaska, the majority of studies are from the United States. Two of these studies have shown conclusively that although investment in education, especially for preschool, early care, and child care, returns far exceeds its initial investment.

The largest benefit produced by quality early education and child care is projected from higher educational attainment. Higher educational attainment has a positive effect on wages. Other benefits include reduced crime rates, lower costs for crime victims, and savings on school operational services budgets. The results of several studies are summarized below.

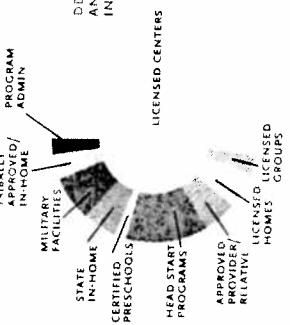


Studies also note that expenditures on education that are focused on K-12 may be misplaced given that brains develop rapidly in the early years (0-4). The implication is that the earlier at a much slower pace from age 4 through 18. The implication is that the earlier the investment on early education, the higher the return on investment will be.

Step 1 Take your child to school, daycare, or child care play areas to see what a typical day is like for your child.

Other important services are provided by the National Center for Child Abuse and Neglect, the National Institute of Child Health and Human Development, the National Institute of Education, and the Office of Juvenile Justice and Delinquency Prevention. The National Institute of Child Health and Human Development, for example, funds research on the effects of child abuse and neglect on children's health and development.

TRIBALLY APPROVED/ PROGRAM



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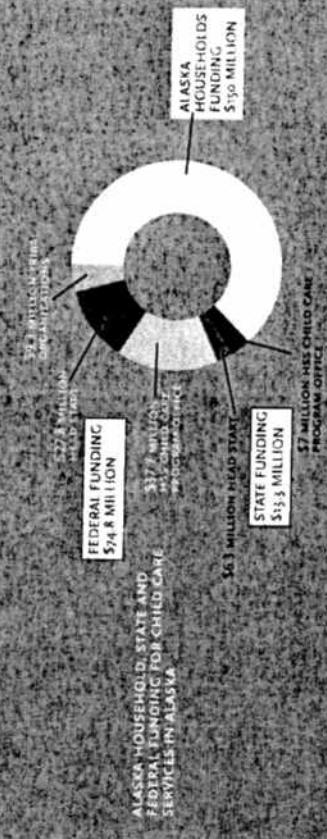
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Despite the prominence of individual employment in the workforce, there is a very low correlation in compensation. DOLWD payroll data indicated that the average monthly wage of an individual employed in this sector was \$1,342. This is well below the average for all sectors of the Alaska economy; the average monthly wage in Alaska for this same time period was \$3,188 – nearly three times that amount.

to put this in further context, it has been found that providers of early education and child care earn less than half of what the average elementary school teacher earns, even though the difference in size of payrolls may not be large.



CHILD CARE SERVICES' REVENUE AND SPENDING
There are two sources of spending on early education and government funding and spending by parents on child care. The analysis of the McDonald Group report, Alaska House \$10 million annually on child care services for children 4 to 12. In comparison, government spending on child care totals nearly \$75 million of that contribution coming from the state. Approximately \$240 million is spent in Alaska on child care services for young children.



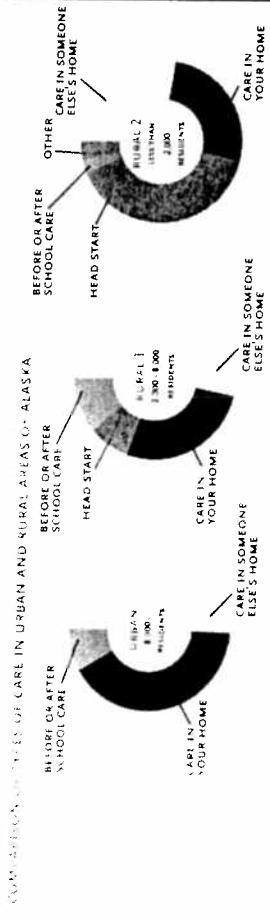
Step 2 THE AVAILABILITY OF QUALITY, AFFORDABLE CHILD CARE
REMAINS A CHALLENGE FOR MANY ALASKA FAMILIES

"I emphasize strongly how important it is to give the children the best start ... to have the children have a good early learning experience."

IMPACT ON ALASKA FAMILIES

In a separate study, 17,000 children under six years of age with working mothers in urban Alaska, defined as all communities with more than 2,000 residents, were asked about their use of child care services. The survey, conducted in 1990, reported the strongest effects studied are understood to be the following:

- For working mothers with children under six years of age, availability of child care services had a greater impact on child care use than cost.
- With regard to availability, the sample also included survey from rural areas, as well as urban areas. The survey reported 2,000 households in rural areas used child care services, compared to 8,000 households in urban areas.
- For working mothers with children under six years of age, the survey reported that 17 percent of households with children under six years of age used child care services, while 52 percent did not.

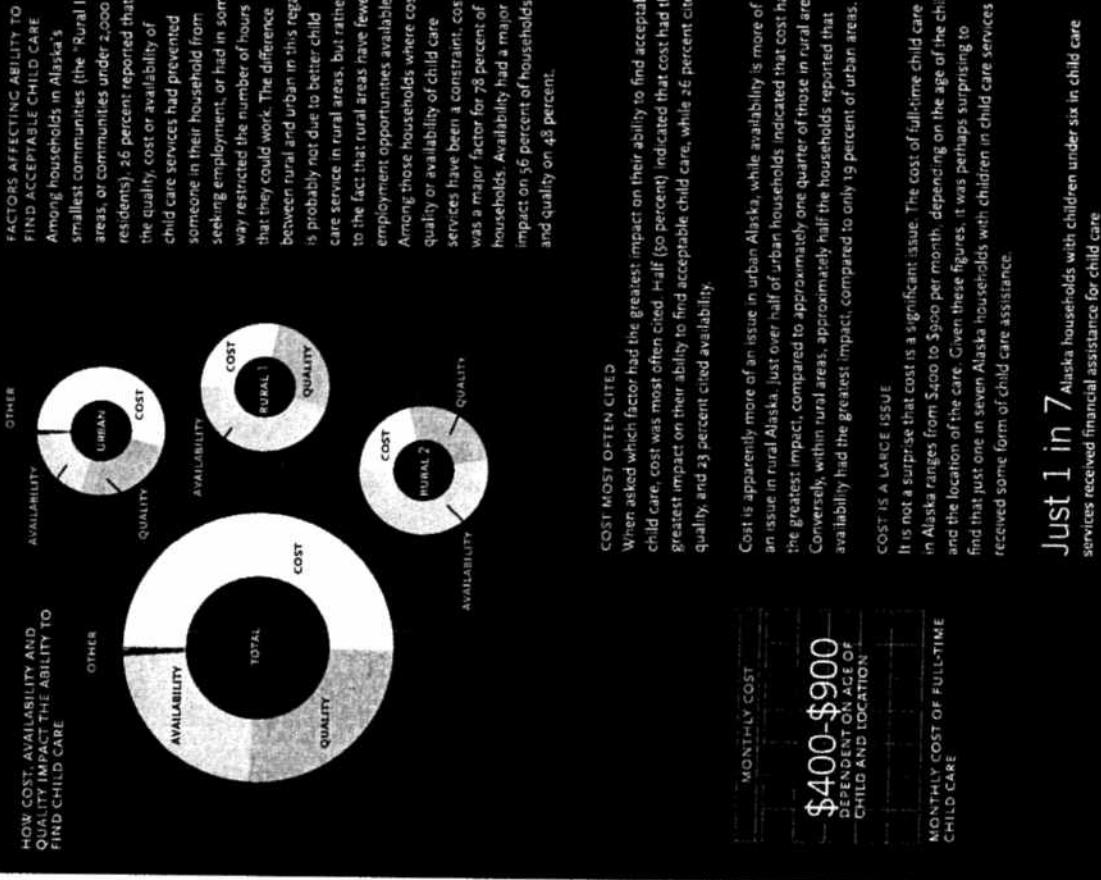


According to the survey, 80 percent of children in non-subsidized households received child care services from someone else's home, while 20 percent were in a preschool or child care center. In contrast, 70 percent of children in subsidized households received child care services from someone else's home, while 30 percent were in a Head Start program. The results of the survey also reported, as some children received care in a preschool setting.

FINDING ACCEPTABLE CHILD CARE

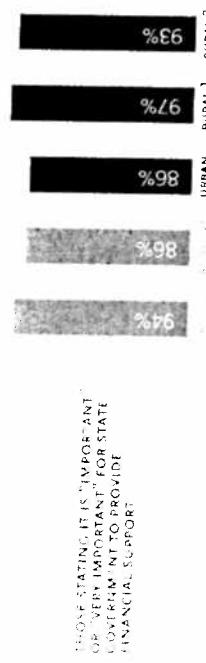
In a study conducted in 1985, 45 percent of Alaskan households with children under six years of age reported that it was difficult or very difficult to find acceptable child care services. Some 6 percent of households reported that it was either easy or very easy to find acceptable child care.

Findings from this study indicated that child care programs proved to be an issue both in rural and non-rural areas of the state. **36%** of households with children under six in child care reported that the quality, cost or availability of child care services had prevented someone in their household from seeking employment, or had in some way restricted the number of hours that they could work.



Just 1 in 7 Alaska households with children under six in child care services received financial assistance for child care

A stylized illustration of a group of people holding hands in a circle, representing a community or support group.



audiences who expressed above average support for early education and child care

Child care and child care

76%	77%	76%	73%
72%	73%	72%	70%
70%	71%	70%	68%
68%	69%	68%	65%

report conclusion - next steps

This series of questions regarding perceived importance of state funding for early education and child care services in Alaska indicate that Alaskans place a high priority on funding for education in Alaska, with a high

end notes

This piece serves as a condensed summary of the July 2006 McDowell report titled "Economic Impact of Early Education and Child Care Services in Alaska." This complete study was commissioned and prepared for the System for Early Education Development (SEED), based at the University of Alaska Southeast. This publication is funded by a grant from the U.S. Department of Education, Fund for the Improvement of Education.

You may download a full copy of the report at <http://seed.alaska.edu> or request the full report from the SEED administrator at seed@alaska.edu.

We thank you for taking the time to review this report, which contains critical data regarding the future of Alaska's children and our economy.

The McDowell Group study team would like to acknowledge the invaluable assistance provided by the Project Steering Committee. The Committee included Mary Lorence (*Manager, Alaska Child Care Programs, Department of Health and Social Services*), Joy Lyon (*Executive Director, Association for the Education of Young Children, Southeast Alaska*), Mary Lou Madden (*Madden Associates*), and Carol Prentice (*SEED Program Manager*). In addition, SEED would like to recognize the contribution made by SEED Council members Candace Winkler and Cindy Harrington.

SEED also appreciates the collaboration with Alaska's *Ready to Read, Ready to Learn Task Force*, 28 Alaskan leaders dedicated to improving the literacy and learning skills of Alaska's pre-kindergarteners.



System for Early Education Development



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Poverty and Early Childhood Intervention

In the spring of 2006, UNC's Center on Poverty, Work and Opportunity hosted a competitive process to support original research by UNC faculty members in the form of policy briefs. Each brief was authored by a UNC faculty member and was reviewed by two experts—an academic and a practitioner in the field that the brief addresses. This Snapshot summarizes the brief on Poverty and Early Childhood Educational Intervention.

OVER AND OVER AGAIN research has shown that children living in poverty suffer in a multitude of ways. Childhood poverty is associated with higher rates of academic failure, grade retention, school drop-outs, teen parenthood, and smoking and illegal drug use. Children growing up in poverty are more likely to have employment difficulties as adults. Research also shows that these outcomes are preventable.

Findings from the Abecedarian Project—a 30-year old project at FPG Child Development Institute—demonstrate that intensive early childhood educational intervention can have lasting positive effects for children raised in poverty. What's more, the program resulted in decreased government spending. Yet children living in poverty today do not have access to this type of initiative.

What Happens to Children Living in Poverty

Children raised in poverty:

- Have poorer academic achievement outcomes than other children.
- Are less likely to attend college. While 88 percent of affluent students attend college, only 36 percent of children raised in poverty do so.
- Are more likely to become a teen parent.
- Are more likely to smoke and use illegal drugs.
- Are more likely to be unemployed.

Existing Research on Early Educational Programs for Poor Children

Numerous early childhood programs have been created over the years to attempt to redress the negative consequences of poverty. Below is a brief summary of research on some of these efforts.

Head Start

Research in the early nineties which seemed to show that Head Start had no lasting impact on poor children's school performance received much attention, despite significant problems with the study's methodology. A more recent study which met standard research protocols showed that after participating in Head Start for a year, children had some improvement in language and pre-reading outcomes and access to health care; and no significant effect for math.

Consortium for Longitudinal Studies

The consortium included researchers from several early childhood programs from the 1960s. They followed up with participants six to ten years later and found that these children were less likely to use special services in school and had fewer grade retentions. However, intellectual gains eroded within three to four years after the program and academic gains were largely gone by five to six years in school.

Chicago Child-Parent Center Program

This program was center-based and offered child and family support services to a sample of families living in high-poverty neighborhoods. Children attended half-day preschool and received additional support through first grade. Participants had higher achievement scores during elementary school than those who did receive the intervention. By age 20, these same children had lower incidence of crime and higher rates of high school graduation.

Infant Health and Development Program

Study participants were low birth weight babies. Participants were randomly assigned to receive services typically offered for such babies or to receive home-based educational intervention during their first year followed by two years of center-based child care. At age eighteen, those who had been heavier at infancy had higher cognitive scores and fewer reported behavior problems. There were no long-term benefits for the lighter weight infants.

Perry Preschool Program

Children attended a half-day preschool program for two years. By second grade, participants had significantly higher achievement scores and were less likely to receive special education services. By age 27, participants were more likely to have graduated from high school, had significantly higher earnings, own homes and second cars, and were less likely to receive welfare or be involved in crime. By age 40, participants were more likely to be employed, have higher salaries, own homes, and have savings accounts. They were less likely to have committed a crime or used illegal drugs.

The Abecedarian Project: A One-of-a-Kind Experience

This project represents the most intensive early childhood program offered for children from poor families. It is the only program to have had full-day, year-round, center-based care in infancy and continue until kindergarten entry. The study methods used meet the highest standards of research. The program enrolled 111 infants between 1972 and 1977 with 57 randomly assigned to receive center-based early educational intervention and 54 in a control group.



The Intervention

The curriculum involved educational "games" that emphasized development skills in cognition and language. For example, infant games were age appropriate adult-child interactions that included talking to the child, showing pictures or toys, and offering infants a chance to react to their environment. Activities were individualized for each child. As children aged, the "games" became more conceptual and skill-based, but the program always emphasized individual development. Children also received their healthcare on site from a staff pediatrician.

Result Highlights

Those who received the intervention:

- Scored 1.8 grade years higher in reading and 1.3 years higher in math as young adults.
- Were more likely to attend a four-year college (36 percent versus 14 percent).
- Were more likely to have a skilled job (47 percent versus 27 percent).
- Were less likely to have had their first child at age 18 or younger (26% versus 45%).
- Tended to smoke less (39 percent versus 55 percent).
- Were less likely to use marijuana (18 percent versus 39 percent).

Cost-Benefit Analysis

Independent economists calculated cost-benefit ratios for the Abecedarian Project based on:

- Earnings and benefits of participants,
- Earnings and benefits of future generations,
- Maternal earnings,
- Elementary and secondary education cost-savings,
- Improved health,
- Higher education costs, and
- Welfare use.

The estimated cost-benefit ratio was 2.5:1— meaning for every dollar spent on the program, taxpayers saved \$2.50 as a result of higher incomes, less need for educational and government services, and reduced health care costs.

Conclusions

Abecedarian Project findings show that intensive early childhood educational intervention made a dramatic difference in long-term outcomes for children raised in poverty. Individuals in the study currently are participating in an age 30 follow-up study. ■

To Learn More

Pungello, E. P., Campbell, F. A., & Barnett, W. S. (2006, December). Poverty and early childhood educational intervention (Policy Brief No. 1). Retrieved April 18, 2008, from The University of North Carolina at Chapel Hill, Center on Poverty, Work and Opportunity web site: <http://www.law.unc.edu/PDFs/Poverty/PungelloandCampbellPolicyBrief.pdf>



Snapshots are summaries of research articles, books, and other publications by researchers at the FPG Child Development Institute at UNC-Chapel Hill.

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Enhanced Early Childhood Education Pays Long-Term Dividends in Better Health

ScienceDaily (Jan. 17, 2011) — Intensive early education programs for low-income children have been shown to yield numerous educational benefits, but few studies have looked more broadly at their impact on health and health behaviors. A new study conducted by researchers at Columbia University's Mailman School of Public Health examines this issue, using data from the well-known Carolina Abecedarian Project (ABC), a randomized control study that enrolled 111 infants in the 1970s and continued to follow them through age 21.

See Also:

- Health & Medicine
 - Health Policy
 - Teen Health
 - Children's Health

Mind & Brain

- Mental Health
- Child Psychology
- Child Development

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- Sex education
- Clinical trial
- Evidence-based medicine
- Sports medicine

education.

Findings are online in the *American Journal of Public Health*.

The original study enrolled infants from 1972 to 1977 at the Frank Porter Graham Child Development Institute in Chapel Hill, NC, where they received an age-appropriate curriculum designed to enhance cognition and language development starting in infancy. Researchers had found that infants enrolled in the program had higher IQ by age three and higher reading and math achievement by 15 years of age, lower rates of teen depression and greater likelihood of college enrollment compared with a control group.

The current study expands on the original study to examine the impact of ABC on three health measures and 11 measures of behavioral risk factors. The health measures were the number of self-reported health problems since 15 years of age, a depression index score, and the number of hospitalizations in the past year. Behavioral risk factors concerned traffic safety, drug use, and access to primary care. Researchers found that participants had significantly better health and health behaviors and that these findings were independent of IQ, educational attainment or health insurance status.

The original study was small, but it had a very strong effect on education. Until it came along, the benefit of education had never been proven using the gold standard in research methods—the randomized controlled trial. What we have found is that this educational intervention also reduced health risks like smoking and improved health outcomes as early as age 21," said Dr. Muennig, assistant professor of Health Policy and Management at Columbia's Mailman School and principal investigator of the new study. "The health benefits were quite dramatic."

Researchers found that individuals who had received the intensive education intervention starting in infancy had significantly better health and better health behaviors as young adults.

The study is only the second to explore the relationship of early childhood education and adult health benefits. The first study, based on the Perry Preschool Program, also was conducted by Columbia professors Peter Muennig, MD, and Matthew Neidell, PhD, on a similarly small cohort of children, and found behavioral benefits, but no overall health benefits. The current study is the first randomized control study to definitively show the health benefit of

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"While much remains to be learned about both the pathways linking education to health and the overall effect sizes of education on health, our study provides causal evidence in support of the hypothesis that early education enhancements may improve income, reduce crime, and even enhance the global competitiveness of the American workforce," suggests Dr. Mueennig. "These interventions may be more cost-effective than many traditional medical and public health approaches to improving population health."

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