



NEBRASKA CENTER FOR RESEARCH ON
CHILDREN, YOUTH, FAMILIES & SCHOOLS

Measuring Impacts and Returns on Early Childhood Education (ECE) and Programming in Nebraska

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Introduction

- High quality early childhood programming and supports (ECE) can yield immediate and lasting positive outcomes for children and families.
- Investments ECE are increasingly recognized as important for the economic well-being of communities.
- There is a need for research that accurately captures and conveys the economic benefits of these investments, specifically for Nebraska.
- The purpose of the current study is to investigate the economic benefits of ECE investment for Nebraska.

39.4% (59,825)

of Children Age 0-5 Statewide are
At-Risk of Failure in School*

** Children whose family income qualifies them for participation in the federal free or reduced lunch program;*

Approach

In the current study, the investigation and analyses will:

- 1) carefully consider the initial resources that are invested into ECE in Nebraska;
- 2) identify the short- and long-term impact estimates of ECE programming for Nebraska children and families in indicator areas that are most salient for the state;
- 3) determine impact estimates that are closely related to the Nebraska demographic context and based on Nebraska costs and wage rates; and
- 4) ultimately estimate the economic benefits of ECE programming for Nebraska.

Step 1:

Identification of Nebraska-Related
ECE Estimates for Key Indicator Areas



Identify ECE Estimates

Child Indicators (Pre- and Post- Graduation):

Cognitive Development/Academic Achievement

- ✓ Grade Retention and/or Repetition; Special Education Placement
 - *E.g. 13-33% reduction in grade retention for part-day preschool*
 - *E.g. 56% reduction in special education placement for part-day preschool*

Attainment of Education, Skills

- ✓ High School Completion; College Degree
 - *E.g. 74% increase in skilled job placement for part-day preschool*

Socio-Economic Status

- ✓ Employment status; Income/earnings; Receipt of Public Assistance

Identify ECE Estimates

Child Indicators (Pre- and Post- Graduation):

Crime

- ✓ Juvenile Arrest; Convictions; Incarceration

Health/Well-Being

- ✓ Obesity; Alcohol and Drug Use; Child Maltreatment

Identify ECE Estimates

Parent Indicators (parents of children in ECE):

Earnings/Employment

- ✓ Income; Reduced Absenteeism

Maternal Health/Well-Being

- ✓ Mental Health; Domestic Violence Reduced

Investment Considerations

- ***Type of Programming***
 - Parent coaching models
 - Child-focused models
- ***Length of Programs***
 - Part vs. Full Day
 - Years of Participation
(one or multiple years prior to Kindergarten entry)
- ***Program Quality***
 - High
(safety, teacher/child ratio, nurturing, activities appropriate for children)
 - Low

Step 2:

Application of ECE Estimates to Nebraska



Savings in Education Costs

Change in Relevant ECE Indicators Due to Investment

Example Indicators:

- Grade retention;
- Special education enrollment;
- Teacher turnover



Value of Benefits for Each Unit of Change in ECE Indicator

Examples:

- Cost per grade retention;
- Additional cost of special education courses;
- Cost to search, hire & train a new teacher



Total Savings in Education Costs Due to ECE Investment

Savings in Cost of Crime & Child Welfare

Change in Relevant ECE Indicators Due to Investment

Example Indicators:

- Juvenile crime;
- Adult crime;
- Child abuse



Value of Benefits for Each Unit of Change in ECE Indicator

Examples:

- Number of crimes committed by the average criminal multiplied by the cost per crime;
- Costs per child welfare case



Total Savings in Crime and Child Welfare Costs Due to ECE Investment

Increased Earnings

Change in Relevant ECE Indicators Due to Investment

Example Indicators:

- High school graduation rate;
- College attendance;
- College graduation



Value of Benefits for Each Unit of Change in ECE Indicator

Examples:

- Increased lifetime earnings;
- Profile of high school graduate versus dropout;
- Profile of college graduate versus high school graduate

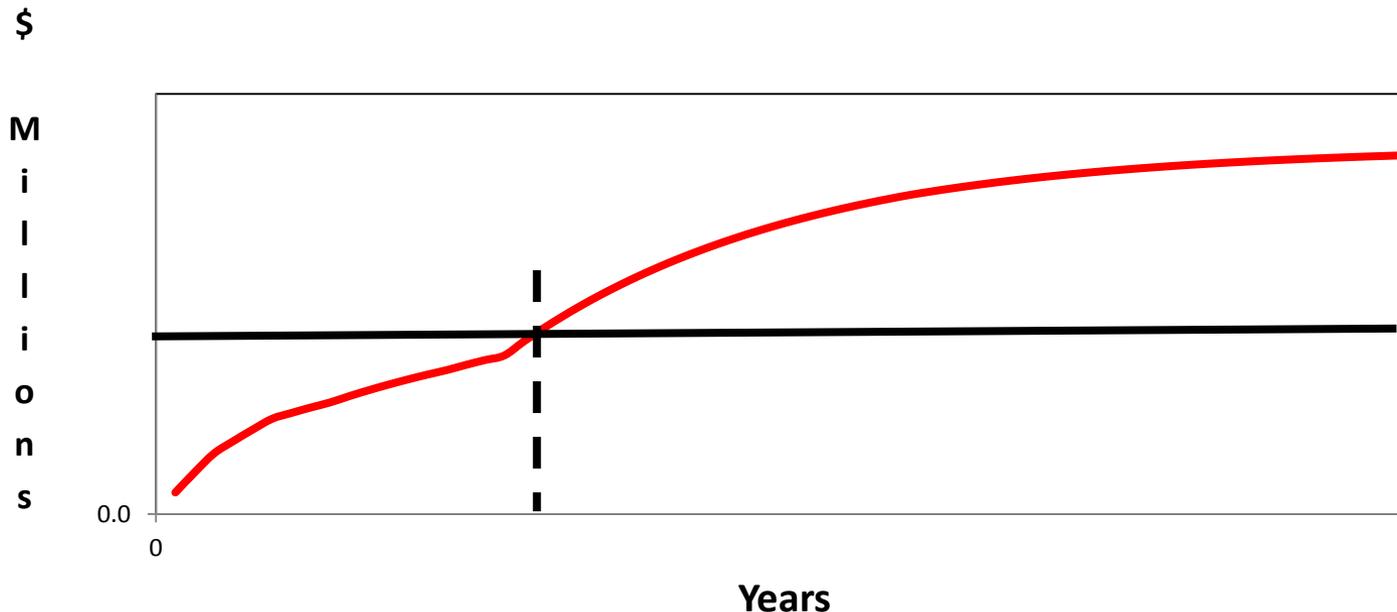


Total Increase in Lifetime Earnings Due to ECE Investment

Total Lifetime Benefits Due to ECE Investment

Present Discounted Value of Aggregate Benefits

- The research team will also estimate the aggregate benefits resulting from ECE investment.
 - The red line shows the present value of **aggregate annual benefits**.
 - The solid black line shows the initial investment.
 - The **payback period** is shown by the dashed vertical line.



Deliverables

- *Via the two steps, the study will:*
 - produce information on Nebraska-specific cost savings;
 - report on the benefits of each key indicator for Nebraska, as well as a cumulative benefit total;
 - provide a statement about the benefits resulting from current ECE spending in NE (annual and aggregate benefits);
 - *payback period and the internal rate of return from the current ECE investment will be computed*
 - yield a dynamic reporting tool to simulate change in key ECE indicators and associated benefits across funding scenarios.

Study Timeline

- Study began August 1, 2012;
- Final report will be submitted December 2013.

Summary

- Nearly 40% of Nebraska children aged 0 – 5 are at-risk of school failure. High quality ECE services could support their positive development.
- Early childhood education and programming can be considered from an economic, as well as an educational perspective. ECE helps **grow the economy** by supporting positive development of children and families.
- There are measurable financial benefits to society from investing in ECE. There are multiple indicators that can be used to measure the economic benefit of ECE.
- This study will provide information that can inform Nebraska policy decisions related to ECE services and programming.

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