



The Head Start Advantage

For more than 50 years, Head Start has provided early learning opportunities for our country's most vulnerable children and partnered with families to address their long-term economic stability and better health prospects.

Today, Head Start serves more than one million children from birth to five years old and their families each year, changing lives not just in the present but also ultimately mitigating the devastating impacts that poverty can have on the future success of these young children, their families, and even their descendants.

This compendium compiles summaries of recent studies that represent some of the best knowledge to date about Head Start's effectiveness. These findings, including economic analyses, longitudinal studies, and secondary analyses, reveal new long-term impacts of Head Start—not only on Head Start children as adults, but also the intergenerational impacts as those adults have children of their own. Other new findings include the effects of Head Start on specific vulnerable populations, reinforcing the program's mission to serve the most at-risk in each community.

These outcomes shed light on the critical, beneficial role Head Start plays in society in the short and long terms, ultimately pinpointing that the best investment our country can make is in our children.

Want more information about the effectiveness of Head Start?

Check out the first Head Start Advantage Compendium for even more research: go.nhsa.org/CompendiumPart1.

"Overall, Head Start appears to have achieved the goals of its early architects, both increasing children's economic opportunities and reducing poverty."

Bailey et al, 2018

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Prep School for Poor Kids: The Long-Run Impacts of Head Start on Human Capital and Economic Self-Sufficiency

University of Michigan Department of Economics | Martha Bailey, Shuqiao Sun, and Brenden Timpe

PREP SCHOOL FOR POOR KIDS:
THE LONG-RUN IMPACTS OF HEAD START ON HUMAN CAPITAL AND
ECONOMIC SELF-SUFFICIENCY

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[\[click here for most updated draft\]](#)

Abstract

This paper evaluates the long-run effects of Head Start using large-scale, restricted 2000-2013 Census-ACS data linked to date and place of birth in the SSA's Numbident file. Using the county-level rollout of Head Start between 1965 and 1980 and state-age-eligibility cutoffs for school entry, we find that participation in Head Start is associated with increases in adult human capital and economic self-sufficiency, including a 0.29-year increase in schooling, a 2.1-percent increase in high-school completion, an 8.7-percent increase in college enrollment, and a 19-percent increase in college completion. These estimates imply sizable, long-term returns to investing in large-scale preschool programs.

JEL Codes: I2, J24, J6

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Findings show that access to Head Start increased education, human capital, and economic self-sufficiency in adulthood, with significant societal returns.

The Study Design

Economists Bailey, Sun, and Timpe connected Census, American Community Survey, and Social Security Administration data to compare the experiences of children who were age-eligible for Head Start when programs first opened in the 1960s to children in the same counties who were slightly too old to participate. Key to the study design is its size: because the authors use Census data, the study sample size is significantly larger than previous longitudinal studies of Head Start. The study examines access to full-year Head Start, presuming that full-year participants would benefit more than those who attended only a summer program.

The authors factor in the expectation that Head Start quickly grew in scope and quality during its first few years. In a final analysis, they use data from the *National Longitudinal Survey of Youth 1979 (NLSY79)* to explore how early access to Head Start affects human capital (the economic value of people measured in terms of education, employment, poverty status, and income) and economic self-sufficiency in adults.

The Study Findings

Findings show that access to Head Start increased education, human capital, and economic self-sufficiency in adulthood, with significant societal returns. Bailey, Sun, and Timpe conclude that, “Overall, Head Start appears to have achieved the goals of its early architects, both increasing children’s economic opportunities and reducing poverty.”

- » **Education & Human Capital:** Children whose counties had full-year Head Start while they were 3 to 5 years old were 2.1% more likely to graduate high school, 8.7% more likely to attend college, and 19% more likely to graduate college than children from the same counties who could not attend Head Start. There is also a relationship between participation in Head Start and the likelihood of completing a professional or doctoral degree: 59% greater likelihood for men and 36% for women. Men were also 19% more likely to hold professional jobs, and women 9.5%.
- » **Economic Self-Sufficiency:** Significant gains in self-sufficiency arose from participants in Head Start being 12% less likely to live in poverty as adults and 29% less likely to receive public assistance. The authors theorize that these findings were influenced by Head Start’s health services and nutrition programs, as well as the program’s education components; in other words, better health and nutrition might have led to participants relying less on disability assistance and other services as adults.

Prep School for Poor Kids: The Long-Run Impacts of Head Start on Human Capital and Economic Self-Sufficiency (cont'd)



“...Head Start appears to have achieved the goals of its early architects, both increasing children’s economic opportunities and reducing poverty.”

The Implications

Many discussions of social programs come down to the question of return on investment: whether the benefits of the program repay the initial funds. Any positive rate of return shows that the initial investment is repaid over time. Often, programs with proven returns on investment garner wider support.

For Head Start, this study finds a return on investment of 7.7%, including a return of 2.4% simply from reduced public assistance. Further, the authors suggest that these returns may be even higher if the benefits of Head Start spill over to participants’ siblings, if income and public assistance were underreported in their data, if additional tax revenues were accounted for, or if greater educational outcomes contributed to better health, longevity, or well-being. As the authors conclude, “These potential limitations, however, tend to strengthen the conclusion that Head Start achieved its goal of reducing adult poverty, delivering sizable returns to investments made in the 1960s and 1970s. The results suggest potentially larger social returns.”

Head Start’s Long-Run Impact: Evidence from the Program’s Introduction

Williams College Department of Economics | Owen Thompson

The Study Design

Using an approach similar in some ways to Bailey, Sun, and Timpe, Thompson compares adult outcomes for children who were age-eligible for the first years of Head Start with outcomes for children from the same counties who were slightly too old to attend. Thompson uses data from the 1979 National Longitudinal Survey of Youth (NLSY79), whose respondents were born between 1957 and 1964. Because he examines outcomes of respondents in their late forties, this study draws further conclusions about Head Start’s longer-term impacts on adult health, education, and employment than most previous research.

Because the NLSY79 does not collect precise measurements of Head Start participation, the author “calculate[d] the average level of Head Start funding per child aged three to six that occurred in each NLSY79 respondent’s county of birth during the three calendar years that they were ages three to four, four to five, and five to six” and draws conclusions about a summary index of outcomes for children who were age-eligible and had a program in their counties (see Figure 1). Thompson includes some adjustments to focus on children whose parents had not attended college and were therefore more likely to be living in poverty. These findings include counties that had both summer and full-year Head Start programs.



Summary Index of Outcomes		
Education Attainment:	Labor Market Outcomes:	Health:
» Total years of education	» Mean of wages/salaries reported from 30-48	» Self-rated health (scale of 1 to 5)
» Earned a high school diploma	» Family income (wages/salary for the individual and their resident spouse, unemployment insurance, child support, investment income)	» Whether health limits individual for work or social activities
» Earned a four-year college degree	» Employment status	» Chronic conditions (asthma, heart condition, high cholesterol, etc.)

Head Start's Long-Run Impact: Evidence from the Program's Introduction (cont'd)



“... long-term positive impacts extend to a wide range of socioeconomic and health related outcomes and are detectable more than four decades after Head Start participation occurred.”

The Study Findings

Thompson concludes that early exposure to Head Start had significant effects on a range of long-term outcomes. For children living in counties with average Head Start funding, adult annual income was increased by \$2,199 (in 2012 dollars), adult education increased by 0.125 years, probability of graduating college increased 2.2 percentage points, and the likelihood of being in poor health at age 40 decreased by 4.6 percentage points. A further effort to compare siblings in the NLSY79 with different exposure to Head Start also found substantial long-term effects.

Because the design of the study examined all children in a county who were age-eligible for Head Start when, in fact, only a fraction could have actually enrolled, the effects of program participation are likely to be larger than those identified by this study. The study does examine impacts on subgroups that enrolled in the early Head Start programs at higher rates relative to the overall population, including black children and children whose parents had less education, and found that these subgroups did show stronger effects. Thompson also finds that children whose counties had greater Head Start funding per child—which likely reflected higher enrollment, full year rather than summer programs, or higher spending per child—showed stronger outcomes.

The Implications

This study adds to the amassing body of research that shows that Head Start has substantial positive effects on adult education, employment, and health—outcomes in line with the program's early vision. As an exciting addition to previous studies that examined outcomes earlier in participants' lives, Thompson concludes that, “the present research demonstrates that long-term positive impacts extend to a wide range of socioeconomic and health related outcomes and are detectable more than four decades after Head Start participation occurred.”

Breaking the Cycle? Intergenerational Effects of an Anti-Poverty Program in Early Childhood

Texas A&M University Department of Economics | Andrew Barr
University of Notre Dame Department of Economics | Chloe Gibbs



The Study Design

Going beyond previous research on the impact of childhood Head Start access on adult outcomes, Barr and Gibbs examine intergenerational transmission of those impacts: Does a mother attending Head Start as a child have a lasting impact on her children? As the authors describe, children born into poverty are more likely to be poor adults than children born into the middle class. With that in mind, the key question for Head Start is whether the program not only decreases adult poverty but whether it can “truly break the cycle of poverty” for the next generation.

Like Thompson, Barr and Gibbs use data from the 1979 *National Longitudinal Survey of Youth* (NLSY79), but unlike Thompson, they also incorporate data from a survey of the children of the women in the NLSY79. This survey, the CNLSY, includes information about those children’s education, employment, health, and risky behaviors.

Examining counties with at least minimal amounts of Head Start funding, the authors look at participants in three ways:

- 1. Those from counties with Head Start
- 2. A “high impact” sample of those whose mothers did not graduate high school and who were more likely to be sent to Head Start
- 3. A “low impact” sample, whose mothers did complete high school and were less likely to be sent to Head Start

The authors anticipate stronger intergenerational outcomes for the high-impact sample—those Head Start participants in the early years whose mothers had not completed high school. Among the children in the CNLSY, the children of those first Head Start participants, the authors examine educational attainment, teen pregnancy, and criminal engagement.

There are many ways a mother’s Head Start access might influence her children, including changes in her parenting practices, value for early childhood education, and benefits from the increased education and employment.

Breaking the Cycle? Intergenerational Effects of an Anti-Poverty Program in Early Childhood (cont'd)



The Study Findings

The authors propose that there are many ways a mother's Head Start access might influence her children, including changes in her parenting practices, value for early childhood education, and benefits from the increased education and employment that could accumulate over time. As expected, the high-impact sample of CNLSY children (those whose grandmothers had not completed high school) showed the greatest intergenerational benefits of their mothers' access to Head Start. These children were 8 percentage points less likely to become teen parents, 15 percentage points less likely to engage in criminal behavior, 13 percentage points more likely to graduate high school and 17 percentage points more likely to enroll in college.

The Implications

The findings demonstrate an impact on children whose mothers had access to Head Start. Where comparable, these intergenerational effects were at least as large as previous studies on first generation effects of Head Start and other early learning programs. Perhaps most promising, a comparison of the children in the high-impact sample with the children of mothers less likely to have grown up in poverty shows that "Head Start access closes most of the gap in outcomes between individuals with more and less advantaged grandmothers." In addition to benefiting these families, these intergenerational effects suggest greater societal returns for Head Start than have been quantified to date. The positive effects of Head Start can be seen across generations.

Interpreting these powerful results, the authors write, "Our findings [about the long-term effects of Head Start] indicate that societal investments in early childhood education can disrupt the intergenerational transmission of the effects of poverty...The availability of Head Start...appears to have been quite successful at breaking the cycle of poor outcomes for disadvantaged families."

The Intergenerational Effects of Head Start

Bucknell University | Esra Kose



Maternal early childhood education, then, may lead to better child health and potentially more stable home environments due to maternal education.

Research by Esra Kose adds to this new body of work about Head Start's intergenerational effects on the children of women with access to the program in the late 1960s. Kose examines the impact of maternal Head Start access on the circumstances in which children are born and their health at birth.

In a panel paper, Kose writes, "mother's access to Head Start increases average birth weight and reduces fraction low birth weight for both white and black infants, with larger impacts on blacks. My findings show that maternal early childhood education is associated with the probability a new mother is more educated, reduces number of births, reduces smoking and drinking during pregnancy."

Maternal early childhood education, then, may lead to better child health and potentially more stable home environments due to maternal education. Reinforcing Barr and Gibbs' findings, Kose suggests that Head Start's long-term societal returns may be significantly larger than previously documented.

Migrant Preschool Children's School Readiness and Early Elementary School Performance

George Mason University Department of Psychology | Tanya Tavassolie, Claudia López, Jessica De Feyter, and Adam Winsler

West Virginia University Child Development and Family Studies | Suzanne C. Hartman



The Study Design

One of the most unique forms Head Start takes is Migrant/Seasonal Head Start, a program model that served over 24,500 children in 2017-2018 with services customized to the hours, environments, and services that best meet the needs of young children from migrant and seasonal farmworker families. This study explored the school readiness and academic success of children of migrant farmworkers attending a Head Start program in Florida as they transitioned into public school. The study aims to understand the children's strengths and how to support their school experiences.

Four-year-old students were assessed over the course of a year in cognitive, fine motor, gross motor, language, prewriting, social, and self-help skills while in Head Start. Then, they were followed through third grade if they stayed in the Miami Dade Public Schools.

The Study Findings

During Head Start, children progressed in all skill domains and showed particular strengths in five of them. Of the one-third of migrant children who then transitioned into kindergarten in Miami Dade, the majority tested as ready for school and received satisfactory grades in kindergarten. While they had early challenges with English language skills, by the end of 3rd grade, nearly all were English proficient. As they progressed through school, migrant students had above-average attendance, and while some scored low on high-stakes tests, these scores were comparable to similar students in poverty.

The Implications

The authors of the study highlight the resiliency of migrant farmworker children in the face of variable living circumstances, poverty, and bias far beyond what most other students face. Because of this, they recommend that school systems have high expectations for the abilities of migrant children in their classrooms.

Head Start's Impact on Socio-Emotional Outcomes for Children Who Have Experienced Violence or Neighborhood Crime

Michigan State University School of Social Work | Kyunghee Lee and Breanne Ludington



The Study Design

Data from the Head Start Impact Study—which, beginning in 2002, followed a group of children randomly assigned to Head Start or a control group through third grade—has recently been used for a number of secondary analyses that focus on the program's impact on particularly vulnerable groups of children. In this study, Lee and Ludington explored the family traits related to children's exposure to crime and violence, whether that violence affected children's social-emotional outcomes, and whether Head Start enhanced social-emotional outcomes for children exposed to crime or violence. For the purposes of this study, "exposure to crime and violence" was defined as witnessing violent or nonviolent crime, being or knowing a victim of violent crime, and/or being a victim of domestic violence, as reported by the child's parents.

The Study Findings

As hypothesized, children with greater numbers of risk factors experienced exposure to crime and violence at higher rates. This exposure led to negative effects on their social-emotional outcomes. However, Head Start not only had positive social-emotional effects on children—improving approaches to learning and reducing hyperactivity—it also had stronger social-emotional effects for those children who had been exposed to violence. For these children, Head Start access improved their social-emotional development compared to children exposed to violence who did not attend Head Start.

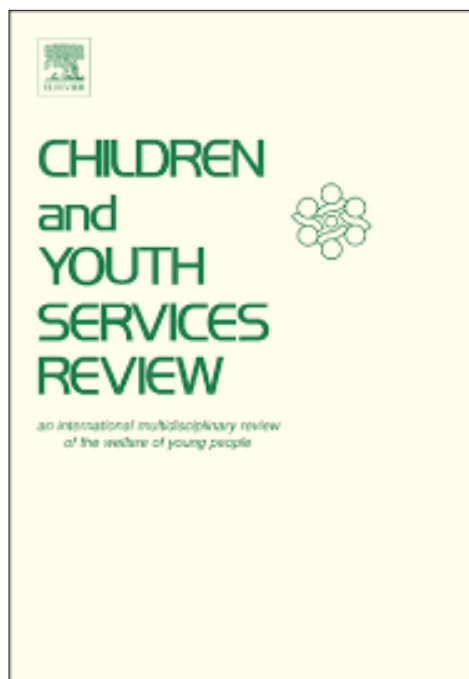
The Implications

Because of the positive effects that were identified, the authors recommend that exposure to violence be one of the criteria by which local Head Start programs prioritize enrollment for those children who stand to benefit most.

Early Care and Education Arrangements and Young Children's Risk of Foster Placement: Findings from a National Child Welfare Sample

Michigan State University School of Social Work | Sacha Klein and Lauren Fries

Children's Institute Incorporated | Mary Emmons



The Study Design

Klein, Fries, and Emmons analyze data from the Second National Survey of Child and Adolescent Well-Being (NSCAW II), a national dataset of children involved in the child welfare system for suspected maltreatment, to explore two possibilities:

1. Whether receiving childhood education services affected the likelihood that children involved in the child welfare system (but who still lived with a permanent caregiver) would be placed in foster care 18 months later, and
2. Whether different early childhood education settings had different effects.

The Study Findings

The authors find substantial positive effects for children in Head Start: these children were 93% less likely to be placed in foster care than children with no early childhood education (ECE) services. Children with no ECE were, in turn, less likely to be placed in foster care than children with multiple, fragmented ECE arrangements. As the study notes, Head Start's two-generation services include support services to families that can include mental health support for both children and caregivers. These and other supports might help parents in the child welfare system retain custody of their children.

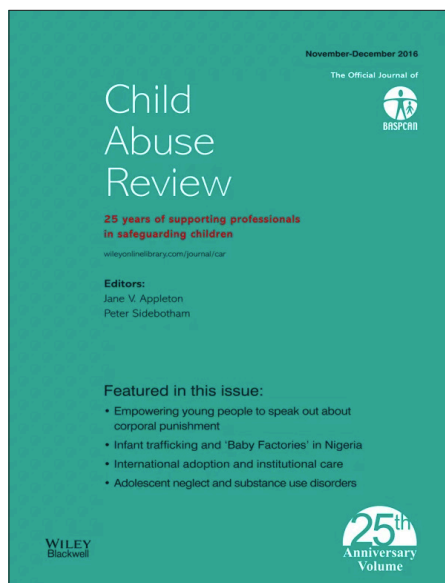
The Implications

The authors conclude with two key recommendations:

1. Child welfare agencies should prioritize gathering information about children's ECE arrangements and helping them link to Head Start programs, and
2. Federal policy should expand upon the eligibility guidelines for Head Start so that children involved in the child welfare system are categorically eligible, including those still living with their permanent caregivers.

Head Start's Impact on Cognitive Outcomes for Children in Foster Care

Michigan State University School of Social Work | Kyunghee Lee



About the Study

In another secondary analysis of data from the Head Start Impact Study (HSIS), Kyunghee Lee digs deeper into the benefits Head Start may offer children in the child welfare system, particularly the cognitive benefits for those children already placed in foster care. From the larger HSIS sample, this analysis examined 162 children living with foster parents, grandmothers, grandfathers, great grandmothers, or other relatives. Lee asks whether children in nonparental care who had access to Head Start had higher reading and math scores at age 5-6 than children in nonparental care who did not have access to Head Start.

The Study Findings

Lee's study found benefits of access to Head Start for particular subgroups of children age 5-6 in nonparental care, including girls in foster care and children whose foster parents were older.

The Implications

Reinforcing the recommendations of Klein, Fries, and Emmons, Lee proposes that child welfare agencies prioritize enrolling children who are in foster care in Head Start and that Head Start programs design their services and enrollment to maximize benefits for children in foster care.



Citations

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