

Investing In Head Start: Impacts And Cost Effectiveness Of America's Comprehensive Child Development Program

Earlier this year, the federal Head Start and Early Head Start programs received a significant increase in funding as part of The American Recovery and Reinvestment Act of 2009, better known as the economic stimulus bill, which was passed by Congress and signed into law by President Barack Obama.

The act provides increased funding of \$1 billion for Head Start and \$1.1 billion for Early Head Start. The stimulus money is a separate addition to the funds allocated for the programs' annual budgets, which total more than \$7 billion.

Head Start, begun in 1965, is a comprehensive child development program that promotes school readiness by providing educational, health, nutritional, social and other support to low-income 3- and 4-year-old children and their families. In 1995, Early Head Start was established to extend support to children ages birth to 3 years old when research provided clear evidence that a child's earliest years are critical periods of growth and development.

Head Start is the longest-running program to address systemic poverty in the United States. It is also one of the most heavily researched programs in the nation. Still, debate continues about the program's effectiveness.

Recent research, however, makes a case for investing in Head Start as a means of helping low-income children achieve better outcomes. Studies suggest that while gains may be small or moderate in some cases, participating in Head Start and Early Head Start gives children important advantages in cognitive development, health, and other domains. In addition, a recent study suggests that even impacts considered small can generate lifetime benefits that exceed the current \$9,000-per-student estimated cost of Head Start.

Cost Effectiveness Of Head Start

A growing body of evidence suggests that Head Start is able

to produce a range of short-term and long-term benefits for children who participate. Estimates that take into consideration the value of those benefits and the cost of the program suggest that Head Start is a cost-effective investment – at least as it was operated during its early years through the 1980s, a period for which researchers are more reliably able to track long-term outcomes of Head Start children.

The more difficult questions center on the impacts of Head Start as it is operated today. What long-term outcomes can be expected among the 1 million children in the program? And what is the cost effectiveness of Head Start as it is currently operated?

The impacts of Head Start on children may change over time for several reasons. Head Start itself, for example, has evolved over the years. The kinds of developmental environments that children not in Head Start experience at home and in early childhood programs may also change as, for example, more mothers work outside the home and the range of state, local and federal programs for young children expands.¹

Benefit-Cost Estimates

Significant progress has been made in recent years in identifying the causal impacts of Head Start, which has led to a growing body of research that suggests the program likely became cost effective during its first few decades.²

Evidence of long-term impacts on children were drawn from outcomes of those who were enrolled in Head Start in the 1960s, 1970s and 1980s. One recent study, for example, found that white children who participated in Head Start in 1980 or earlier were about 22% more likely to complete high school than their brothers and sisters who were in some other type of preschool arrangement. They were also about 19% more likely to attend some college. The study reported that the school attainment gains for African-American children

were small. However, attending Head Start was associated with significantly reducing their chances of being arrested and charged with a crime later in life.³

Researchers also report evidence that gains in school attainment for Head Start children are linked to program funding levels. In another recent study, researchers reported that a 50%-100% increase in Head Start funding is associated with a one-half year gain in school attainment and increases by 15% the likelihood that children will attend at least some college when they get older. Such gains were seen among African-American children as well as whites. The estimates were calculated for children who participated in Head Start during the 1960s and 1970s.⁴

Such impacts have lead researchers to estimate that Head Start, as operated in the 1960s through the 1980s, produced \$7 in benefits for every \$1 spent on the program. That estimated benefit-cost ratio is similar to those found among much smaller, more intense, and more costly model early childhood programs, such as the Perry Preschool Program.

Cost Effectiveness Today

The long-term impacts of Head Start on the children enrolled in the program today will not be known for many years. The absence of such data makes estimating the cost effectiveness of the program as it is operated today a challenge.

Researchers Jens Ludwig of the University of Chicago and Deborah Phillips of Georgetown University undertook the difficult task of projecting the long-term impacts of Head Start on children who are now enrolled across the country and estimating the cost effectiveness of the program as it is operated today.

Their investigation was aided by rigorous evidence of short-term impacts from the recent Head Start Impact Study commissioned by the federal government. The study is a randomized experimental evaluation of Head Start impacts measured within one year of random assignment. In addition to random assignment, the study includes a representative sample of program sites. In other words, rather than being a small, tightly controlled demonstration, it is an examination of a public program implemented in a wide range of circumstances with varying quality.⁵

One key question is how large would Head Start's short-term impacts need to be to suggest that the program's long-term benefits justify program expenditures.

The researchers examined that question by looking at the short-term impacts reported in studies of other early childhood interventions for which there is also evidence of long-term benefits in excess of cost, and by estimating the dollar value of a standard deviation increase in early childhood test scores. Available evidence on a range of early childhood interventions – from relatively low-cost large-scale programs

such as the Chicago Child-Parent Centers to small, very intensive randomized model experimental programs like Perry Preschool and Abecedarian – point to lasting program benefits that outweigh program costs.⁶

Researchers estimated that positive impacts on achievement test scores of .1 to .2 standard deviation are large enough to produce long-term dollar-value benefits that exceed the costs of the program.

The Head Start Impact Study reports that 3-year-old and 4-year-old children in the program as it currently operates had scores within the .1 to .2 standard deviation range for pre-reading skills such as letter naming and word identification, and for pre-writing and vocabulary.⁷ Other findings include evidence that Head Start had positive impacts on the overall health of children in both the 3- and 4-year-old groups and in their access to dental care.

Ludwig and Phillips suggest that even given the limitations of available data and methods for estimating long-term impact, Head Start data as operated today likely produces benefits for children whose dollar value exceeds the cost of the program.

Early Head Start

Early Head Start was established in 1995 when researchers began reporting that the infant and toddler years were critical periods in the maturation of the brain during which experience and proper stimulation can play key roles in enhancing development. The program provides early care and education and comprehensive services to low-income children ages birth to 3 years, and support to pregnant mothers and families. In 2006, nearly 86,000 children under age 3 and about 11,000 pregnant women were enrolled in Early Head Start.

Data from Early Head Start Program Information Reports provide a profile of the children and families enrolled in the program and the services and supports they are provided. In addition, recent research provides insight into the impact of Early Head Start on the children and families enrolled.

Families And Children

The most recent data on the children and families enrolled in Early Head Start come from the program's 2005-2006 Program Information Reports, which sites across the country are required to submit each year. When analyzed, several key findings emerge, including these:

- Early Head Start supports working parents. About 66% of families served included at least one working parent in 2006. At least one parent was in school or in training in 24% of families.
- The program served a diverse range of low-income children, families, and pregnant women. The racial and ethnic

profile included 42% white, 30% Hispanic and 25% African American.

- Children and families had access to a wide range of services. The most widely accessed services were parent education, 65%, and health education, 60%. Children also received dental, medical, and mental health services and 92% of the pregnant women enrolled received prenatal and postnatal care.
- Among the children who did not have health insurance when they enrolled in Early Head Start, 54% obtained insurance during their first year in the program. And 93% of children in the program received all immunizations appropriate for their age.

Early Head Start Impact

Among the best evidence of the impact Early Head Start has on the children, families, and pregnant women who participate in the program are the findings reported in a rigorous, large-scale, random assignment evaluation of 17 program sites that was commissioned by the U.S. Department of Health and Human Services.

The evaluation reports that, overall, low-income children and families enrolled in Early Head Start enjoyed modest, but positive outcomes. The study also showed that some of the outcomes the program improved are important predictors of later school achievement and family functioning.

Among the key findings of the Early Head Start evaluation were the following:

- Early Head Start largely sustained statistically significant, positive impacts on cognitive development among 3-year-old children. On average, they scored higher than children in a control group who did not participate in the program on the Bayley Scales of Infant Development Mental Development Index, an assessment of cognitive development. However, the scores of Early Head Start children still fell below national norms.
- Fewer Early Head Start children scored in the at-risk range of developmental functioning than did children in the control group.
- Early Head Start children scored higher on assessments of language development than peers in the control group. Also, fewer Early Head Start children scored in the at-risk range of developmental functioning.
- Early Head Start was found to have favorable impacts on several aspects of social-emotional development at age 3. Compared to children in the control group, for example, Early Head Start children tended to engage their parents more, were more attentive during play, and were rated lower in aggressive behavior by their parents.

The evaluation also reports that Early Head Start had positive impacts on a range of parenting outcomes. For ex-

ample:

- Early Head Start parents were more emotionally supportive with their children than parents in the control group who did not participate in the program. Early Head Start parents, for example, scored higher on the Home Observation Measurement of the Environment.
- Early Head Start parents were also more likely to report reading to their children every day and they were less likely than control group parents to engage in negative parenting behaviors. They also reported using a greater range of discipline skills, including more mild strategies and fewer punitive strategies.
- More Early Head Start parents participated in education or job training programs compared to control group parents. However, such outcomes did not lead to significant improvements in family income during the study period.
- Early Head Start had significant favorable impacts on several areas of fathering and father-child relationships. For example, fathers were more likely to participate in child development activities, and Early Head Start children were more able to engage their fathers and be more attentive during play.

The program's impacts on children and parents were greater among certain subgroups, including African American families and families who enrolled during pregnancy. In addition, the evaluation found that Early Head Start families were more likely than those in the control group to receive a broad range of services and much more likely to receive intensive services focused on child development and parenting.

As with most other Head Start studies, it is unclear how such impacts influence long-term outcomes. However, research suggests that reductions in risk factors and improvement in protective factors may support improved outcomes later in the lives of children.

References

Ludwig, J., & Phillips, D. (2007). "The benefits and costs of Head Start." *Social Policy Report*, 21. Society for Research in Child Development. <http://www.srcd.org/spr.html>

Love, J.M., Kisker, E., Ross, C.M., Schochet, P.Z., Brooks-Gunn, J.B., Paulsell, D., Boller, K., Constantine, J., Vogel, C., Fuligni, A.S., & Brady-Smith, C. (2002, June). *Making a Difference in the Lives of Infants and Toddlers and Their Families: The Impacts of Early Head Start, Executive Summary*. Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families.

Hoffman, E., & Ewen, D. (2007, December). Support-

ing families, nurturing young children: Early Head Start Programs in 2006. *CLASP Policy Brief (Head Start Series)*, 9. Washington, DC: Center for Law and Social Policy.

This Special Report is based on the publications cited above. It is not intended to be an original work but a summary for the convenience of our readers. References noted in the text follow:

- ¹ Hill, J., Brooks-Gunn, J., & Waldfogel, J. (2003). Sustained effects of high participation in an early intervention for low-birth-weight premature infants. *Developmental Psychology*, 39, 730-744.
- ² Currie, J. & Thomas, D. (1995). Does Head Start make a difference? *American Economic Review*, 85(3), 341-364.
- ³ Garces, E., Thomas, D., & Currie, J. (2002). Longer-term effects of Head Start. *American Economic Review*, 92(4), 999-1012.
- ⁴ Ludwig, J., & Miller, D.L. (2007). Does Head Start improve children's life chances? Evidence from a regression-discontinuity design. *Quarterly Journal of Economics*, 122(1), 159-208.
- ⁵ Zaslow, M. (2006, June). *Issues for the learning community from the first year result of the Head Start Impact Study*. Paper presented at the Head Start Eighth National Research Conference, Washington, DC. http://www.childtrends.org/Files//Child_Trends-2006_06_27_SP_HeadStartPlenary.pdf.
- ⁶ Carneiro, P., & Heckman, J.J. (2003). Human capital policy. In J.J. Heckman & A.B. Krueger (Eds.), *Inequality in America: What role for human capital policies?* (77-240). Cambridge, MA: MIT Press.
- ⁷U.S. Department of Health and Human Services. Administration for Children and Families (May 2005). *Head Start Impact Study: First Year Findings*. Washington, DC.