

The Benefits of Preschool for High School and Beyond

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A student's achievement in high school can often be traced back to his or her participation in preschool. This is especially true for high-risk students who have participated in high quality preschool programs. Just as a house needs a solid foundation to support the building structure, children need a firm foundation upon which to build their lifetime of learning. High quality preschool programs equip young children with essential tools that prepare them to learn in schools. Three examples of high quality preschool programs are the High/Scope Perry Preschool Program, the Abecedarian Project, and the Chicago Child-Parent Centers. These preschool programs were designed as early interventions for children who are at high-risk of school failure. Data from the longitudinal studies reveal that these programs resulted in long-lasting effects on the children. Investing in a high quality preschool education has positive impacts in a child's development through high school and beyond.

The Chicago Child Parent Center (CPC) is the second oldest federal preschool program in the nation and the oldest extended early intervention in the country. Founded in 1967, CPC was started through ESEA Title I in order to prepare disadvantaged students to enter into elementary school ready to learn. CPC is comprised of 24 centers located in the poorest neighborhoods in Chicago, and each center serves between 100-150 three to five year old students. CPC has been identified as an exemplary early childhood program by the U.S. Department of Education.

CPC's program includes a comprehensive education, family services, and health services. The students in CPC participate in the program for up to six years

from ages 3-9, from preschool through third grade. The program includes half-day preschool at ages 3 and 4, half or full-day kindergarten, and school-age services linked to elementary schools from ages 6 to 9. The program emphasizes the acquisition of basic skills in language arts and math, and professional development for teachers and assistants is focused on pre-literacy. Since CPC is run by the Chicago Public School system, all CPC teachers must have a bachelor's degree and an early childhood teaching certificate.



Parent involvement is an important part of CPC. Each center has a parent resource room staffed by a full-time teacher. All parents must sign an agreement to participate the equivalent of half a day each week in the program.

The Perry Preschool is located in the Ypsilanti Public Schools in Ypsilanti, Michigan. In the late 1950's and early 1960's, Ypsilanti experienced a growth among

poor and minority students. Many of these young students who came from diverse parts of the country did not begin their education until after first grade and were experiencing academic difficulties. In 1962, David Weikart—a special education director at the Ypsilanti Public Schools, began the Perry Preschool Program as a measure to prevent school failure and grade retention in subsequent grades for these students. The Perry Preschool Project Study was initiated in the 1960's, and Weikart and his colleagues created the nonprofit High/Scope Education Research Foundation in 1970 to house their work in early childhood.

The High/Scope Perry Preschool Project was conducted in 1962-1967 from October through May each year. Students were ages 3 and 4 when they entered the Perry Preschool Program. In the course of the year, teachers taught daily 2.5-hour classes for children on weekday mornings, and the teachers made weekly home visits to each mother and child. There were 4 teachers per 20-25 students, a ratio that made it possible for the teachers to conduct the home visits. The Perry Preschool Program was founded upon a Piaget model that emphasizes children as intentional learners who learn best from activities that they plan, carry out, and review. The teachers supported the children's interests and encouraged children to engage in play activities in order to develop children's intellectual, social, and physical development.

The Carolina Abecedarian Project is an experiment in intensive early childhood services to children from low-income families from birth to age 5. The Abecedarian program operated between 7:30 a.m. and 5:30 p.m., 5 days per week, and 50 weeks out of the year. The program offered free transportation, and the children in the program received medical and nutritional services. The Abecedarian curriculum emphasized language development with each child receiving an individualized prescription of education activities.

The teachers at Abecedarian were provided ongoing professional development, and staff salaries were based on the public school pay scale. The teacher/child ratio ranged from 1:3 for infants and toddlers and 1:6 for older children.

Longitudinal studies were conducted at each of the preschool programs to evaluate the effects of the programs on at-risk children. In all three studies, the children who received the preschool intervention services (program group) were compared with children who did not receive the preschool intervention services (comparison group). Data from the three studies show that preschool made a positive impact on educational and social outcomes in the program group through adolescence and early adult-

LONGITUDINAL STUDIES

Chicago Child-Parent Center Study

Arthur J. Reynolds at the University of Wisconsin conducted the Chicago Child-Parent Center Study. The longitudinal study consisted of 1539 disadvantaged minority children born in 1980 in Chicago. 93% of the children were black and 7% of the children were Hispanic. He compared the lives of 989 children who attended CPC and 550 children who participated in alternative programs including Head Start and full-day kindergarten.

High/Scope Perry Preschool Study

The High/Scope Perry Preschool Study randomly assigned 123 children ages 3 and 4 to program or no program control groups. The children in the program group received high-quality preschool program, and the control group did not participate in a preschool program. All 123 children were African American children born into poverty and at high risk of failing in school.

Carolina Abecedarian Study

The Abecedarian Study followed 111 high-risk children born between 1972 and 1977 to evaluate the effects of a high quality preschool program. The children were randomly divided into two groups. The program groups consisted of 57 children who were continuously enrolled from infancy to age 5 in high quality early childhood program and the control group that consisted of 54 children received no services.

hood. In addition, the investment in early education provided a cost benefit to schools and to society. Below are selected highlights from the preschool studies.

All three studies found that the program group had a higher rate of high school completion than the comparison group. The children who participated in CPC were more likely to finish high school with an official diploma or were awarded a GED and less likely to drop out than the comparison group. By age 20, nearly half of the CPC program members had completed high

school. The effects of school dropout and high school completion were evidenced profoundly in the boys who participated in CPC. Although the CPC program group's high school completion rate is the average high school completion rate for Chicago and may seem unimpressive, the program group was 30% more likely to remain in school and finish high school than the comparison group. The Perry Preschool Study found similar results. By age 27, 71% of the children who participated in the Perry preschool either graduated high school or attained a GED measured against 54% of the comparison group. The Abecedarian Study found that by age 21, the program group members completed more years of education and were more likely to attend a four-year college than the comparison group.

In addition to an increased high school completion rate, a greater number of children who received preschool services performed better in school than the comparison groups. The program group was less likely to be held back a grade and less likely to be placed in special education classes than their respective comparison group. By the end of ninth grade, the Abecedarian, Perry Preschool, and CPC program groups experienced lower levels of grade retention and lower levels of children who had ever received special education services. This is good news for the students and for the school system. A decrease in special education placement saves the school system from costly special education services expenditures, more than double the amount of regular education. (The cost differential between regular education and special education is estimated at \$7931 and \$18341 respectively by Masse and Barnett 2002.) The money that is invested in the preschool programs can be recouped in the savings for the expenditures on special education services.

The children who received preschool services were less likely to drop out of school, be held back a grade, and be placed in special education classes than their respective comparison groups.

The most significant outcomes like high school completion and delinquency reduction are being driven mostly by preschool.

- Arthur Reynolds, Director of the Chicago Longitudinal Study

The lower rate of grade retention and special education placement can be attributed in part to higher literacy and mathematics skills. All three preschool programs were designed to prepare the program group members for formal instruction, especially in language and literacy. The focus on literacy is crucial because an excellent preschool program can prevent or reduce reading difficulties in at-risk children (Snow 1998). The findings from the preschool studies show that the preschool programs did just that. The Perry Preschool Study found that at age 19, the program group had a significantly higher average literacy score than the comparison group. The Abecedarian Study also found that the academic achievement for the program group in both reading and math was higher from the primary grades through young adulthood than for the comparison group.

The evidence presented thus far points to educational outcomes that were affected by the preschool interventions. The data from the preschool studies show that preschool interventions positively impacted other life choices as well. These life choices include criminal activity, pregnancy, and smoking. Both the Perry Preschool Study and the CPC Study show that participation in the preschool program helped to prevent crime. From the ages of 10-18, the children in the CPC had one third fewer juvenile arrests overall and 41% fewer arrests for violent crimes than their comparison group. By age 28, the Perry Preschool program group members averaged half the number of arrests compared to the control group members. (Interestingly, the Abecedarian Study did not find any difference in rates of crime between the program group and the comparison group.)

The Abecedarian program was effective in raising the average age of pregnancies and a decrease in the number of smokers. Teenage pregnancies dramatically

For every \$1 invested into the preschool programs described in this paper \$7 is saved in public expenditures. The benefits resulting in the preschool programs, including reduced incidence of special education and crime, were calculated into a dollar figure.

affect the chances that a young mother will complete high school and have the skills and abilities to support herself financially (CCSSO 1999). The Abecedarian Study data shows that the program group members were older, on average, when their first child was born which increases likelihood that more young women from the program group completed high school.

Data on smoking was collected because the assumption is that individuals with higher education can make better and more informed decisions concerning their personal health (Masse and Barnett). National data (USDHHS, 1997) show that individuals with a high school degree currently smoke at a rate of 47%, which is nearly four times the rate of 12% for college graduates. In a 1993 survey by the Frank Porter Graham Center on smoking by Abecedarian participants, 55% of the comparison group were smokers versus 39% for the program group. Although decisions regarding these life choices were not on the preschool agenda, the program group was able to make productive choices about pregnancy and smoking.

From strictly a cost perspective, quality preschool programs such as the Perry Preschool, Chicago Child-Parent Centers, and Abecedarian Program are good investments. The money invested into quality preschool programs has large savings in the future. For every \$1 invested into the preschool programs described in this paper \$7 is saved in public expenditures. The benefits resulting in the preschool programs, including reduced

incidence of special education and crime, were calculated into a dollar figure.

According to Arthur Reynolds, the most significant outcomes like high school completion and delinquency reduction are being driven mostly by preschool. The data on the effectiveness of the three preschool programs show that a high-quality preschool can make a large impact in a child's life. Participation in high quality preschool programs have the potential to prevent school failure for at-risk children, and it increases the likelihood that these children experience success far into their futures.



For additional information on early childhood and family education at the Council, visit [Http://www.ccsso.org](http://www.ccsso.org) or write the author at jinheel@ccsso.org.

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As part of the Trusts' early education initiative, "Starting Early, Starting Strong," CCSSO will educate and serve its membership to build support among the chiefs for expansion of high quality, universal preschool opportunities for 3 and 4 year-olds. As a primary activity of the project, CCSSO will enlist a cadre of champions from among its member superintendents and commissioners to oversee and advise the project and to serve as national, regional and state spokespersons for expanded quality and access to early childhood education.