

# Review of Early Childhood Education Research

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Research demonstrates a variety of early childhood education outcomes, generally quite positive, ranging from improved kindergarten behavior to increased earnings as an adult. Some representative examples from around the country include:

- Participation in inner-city Illinois preschools during the 1980s was associated with short-term and lifetime benefits to participants, their families, and society estimated at seven times program costs.
- Tennessee kindergarten teachers found children who attended preschool from 2009 to 2011 were more prepared for kindergarten and demonstrated better social behavior than those without pre-K.
- Special education placements during K–12 were 13 percent less frequent for students who attended preschool, based on 23 pre-K programs over several decades with varying degrees of assessment rigor.
- Controlling for family differences, a nationwide sample of individuals who attended preschool between 1968 and 1981 were 7 percent more likely to graduate from high school and 15 percent more likely to attend college.
- Children with two years of preschool and weekly home visits near Ann Arbor, Michigan in the 1960s were 9 percent less likely to be arrested as juveniles and on average earned \$79,000 more over their careers.
- Participation in a high-quality preschool program in Tennessee from 2002 to 2004 was associated with short-term cognitive, social-emotional, and health gains, none of which persisted through the third grade.
- Reduced grade repetition and lower crime rates for pre-K participants were observed for some racial groups, but not for others, according to nationwide studies of preschools from the 1960s to 1980s.

Early childhood education programs can produce lifetime benefits to participants and society in excess of program costs. Research supporting this finding pertains to three local pre-kindergarten (pre-K) programs operating in Illinois, Michigan, and North Carolina three to five decades ago (see Table 1). Evaluations of these programs benefit from follow-up assessments and interviews with participants into adulthood. Robust research designs are randomized or quasi-experimental. While outcomes are context-specific, less thorough studies of other pre-K programs yield mixed but largely supportive results. At least for certain subsets of the population and certain types of preschools, pre-K participation can favorably affect whether an individual needs special education services, repeats a grade, graduates high school, undertakes postsecondary education, commits crime, maintains employment, has good earnings, relies on welfare programs, and avoids harmful substances.

Recent longitudinal assessments of state-run preschools, Head Start, and other pre-K programs have shown favorable results in terms of participants' kindergarten preparedness, health throughout grade school, high school graduation, and crime rates. However, two studies with excellent data found cognitive and behavioral outcomes for pre-K participants had faded by the third grade from comparable students not enrolled in pre-K. A nationwide study found no adult earnings advantage for children who attended preschool. One cannot assume pre-K outcomes in a particular setting will include a complete array of lifetime benefits documented for other pre-K programs, even if immediate or third-grade improvements are found.

Pre-K outcomes for subgroups can be revealing. For example, kindergarten preparedness associated with pre-K was higher for children learning English as a second language, and various third grade outcomes were especially favorable for the children of parents who were unemployed, received TANF or Food Stamp assistance, had not graduated from high school, or were otherwise considered high-risk. As another example, pre-K benefits of grade repetition avoidance and above-average scores on standardized third-grade tests only occurred for some participant groups defined by characteristics of race and ethnicity. Across participant subcategories, outcomes for a particular pre-K program may be outsized, temporary, or diminished.

**Table 1**  
**Per-Child Cost and Benefit Estimates for**  
**Three Preschools with Robust Long-Term Evaluations**

<i>Pre-Kindergarten Program</i>	<i>Program Cost</i>	<i>Lifetime Benefits</i>
Michigan, 1960s	\$20,900	\$179,400
North Carolina, 1970s/80s	\$83,500	\$208,300
Illinois, 1980s	\$9,700	\$98,700

Note: Amounts per participant in 2014 dollars, adjusted for inflation  
 Table 1 in the full report provides sources, notes, and more data points.

In summary, pre-K outcomes are favorable and enduring, according to the most definitive studies available, although these are from outside Utah and are quite dated. Several more recent studies have found mixed and nuanced results regarding cognitive, behavioral, economic, and health benefits associated with pre-K participation.

For sources and further discussion, please refer to the full report, "Preschool Outcomes: A Literature Review," 22 pages, from the Kem C. Gardner Policy Institute, December 14, 2015.