

Clearinghouse on Elementary and Early Childhood Education

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ERIC DIGEST

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Recent Evidence on Preschool Programs

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Growing evidence indicates that high-quality preschool child development programs contribute to the short- and long-term development of children living in poverty. Recent literature reviews summarize this evidence (Barnett, in press; Currie, 2000; Karoly et al., 1998). Some recent studies have been experimental, involving random assignment of children and families to program and no-program groups and providing the most unequivocal evidence of program effects. Other recent studies have been quasi-experimental, involving a no-program group not randomly assigned or no comparison group at all; these studies never completely rule out alternative explanations, but they do permit examination of evidence in situations where experimental design was impossible. This Digest summarizes recently reported experimental and quasi-experimental studies of Head Start and similar programs.

Recently Reported Experimental Studies

An evaluation of the Head Start Comprehensive Child Development Program (Goodson et al., 2000) randomly assigned 4,410 children and families living in poverty at 21 sites to this program or no program and followed them for 5 years. Although the program's comprehensive services centered on the assignment to each family of a case manager to help them meet their needs, only 58% of the program group actually met with a case manager, as did 18% of the control group, due to participation in other programs. Perhaps partly because this group difference in case management was only 40% rather than the 100% that might be expected, the study found no statistically significant effects on either child or parent outcomes, raising the question of whether families who use early childhood programs really profit from case management.

An evaluation of some 3,000 infants and toddlers and their low-income families in the Early Head Start program, the federal program that began in 1995, has found program effects through age 2 (Administration on Children, Youth, and Families, 2001b). When compared to a randomly assigned control group, Early Head Start children did modestly but significantly better on measures of cognitive, language, and social-emotional development, and their parents scored significantly better than control-group parents on measures of parenting behavior and knowledge of infant-toddler development. The evaluation is continuing, to see if these early effects are sustained as children grow older.

Two evaluations of the Even Start Family Literacy Program (Planning and Evaluation Service, 1998) randomly assigned children and families to Even Start or not. Somewhat greater percentages of the Even Start group than the control group received various services, for example, 95% versus 60% participating in early childhood education. Consequently, both groups experienced gains, with the Even Start group experiencing some greater gains—the pattern for adult literacy, adult GED attainment (22% vs. 6% in one of the studies), cognitive stimulation and emotional support by the

family, and children's vocabulary. Even Start children improved their basic school readiness skills (e.g., recognition of colors, shapes, and sizes), but their non-Even Start peers caught up with them a year later, a common finding for intellectual achievement in preschool programs.

The Carolina Abecedarian Project study randomly assigned 111 infants from low-income families to program and no-program groups and collected data on 104 of them at age 21 (Campbell et al., 2001). The full-time child care program focused on game-like educational activities to foster young children's cognitive, motor, and social development. This is the first such study to find program benefits throughout participants' schooling on their intellectual performance and academic achievement. Other findings include more participants being in school at age 21 (40% vs. 20%), more ever attending a 4-year college (35% vs. 14%), and a higher average age at birth of first child (19.1 vs. 17.7).

In 1997, the U.S. General Accounting Office observed that no studies had evaluated effects of typical (rather than model) Head Start programs using experimental designs that randomly assigned children to program and no-program groups. Head Start's 1998 reauthorization empaneled an Advisory Committee on Head Start Research and Evaluation (1999) to recommend a framework for studying the impact of Head Start. The National Head Start Impact Study, now under way, should provide useful results in a few years.

Recently Reported Quasi-Experimental Studies

FACES is a continuing longitudinal study of 3,200 children and families who entered 40 representative Head Start programs in fall 1997. Although the study did not have a no-program group for comparison, results (Administration on Children, Youth, and Families, 2001a) showed that Head Start children improved their vocabulary, writing skills, and social skills more than expected on these measures for children their age and continued to have better literacy and mathematics skills during their kindergarten year. Parents were found to be very satisfied with Head Start, more so than for other federal programs. Head Start classrooms received high-quality ratings by trained outside observers, and most Head Start teachers were found to have the requisite teaching qualifications.

Gilliam and Zigler (2000) report that as of 1998, evaluations had been conducted on 13 of the 33 state preschool programs. They summarize these evaluations as finding modest support for positive program effects on children's developmental performance, school performance and attendance, and reduced percentages of children held back a grade. Similarly, an evaluation of North Carolina's Smart Start programs, not included in this review, found evidence of modest improvements in children's skills as rated by teachers at kindergarten entry (Smart Start Evaluation Team, 1999).

Oden, Schweinhart, and Weikart (2000) studied 622 22-yearolds born in poverty who had or had not attended Head Start. Of the females at the site that permitted such comparisons, more of the Head Start graduates graduated from high school or got a GED (95% vs. 81%), and only one-third as many had been arrested for a crime (5% vs. 15%). At the same site, the study compared children who had participated in regular Head Start classes to children in Head Start classes using the High/Scope curriculum framework, in teachers systematically supported intentional learning activities. Both males and females who had experienced High/Scope rather than regular classes achieved a higher elementary grade point average (3.2 vs. 2.4 on a 4-point scale) and had only 38% as many criminal convictions by age 22 (0.54 vs. 1.41 convictions per person). Independent analyses suggested that program effects were probably underestimated.

Currie and Thomas (1999) examined the effects of Head Start in the representative National Longitudinal Survey of Youth by comparing Head Start children to their siblings who did not attend Head Start. They identified who had attended Head Start by asking the children's mothers. Focusing on 750 Latino children, they found that relative to their siblings, Head Start children had higher vocabulary and mathematics test scores and were less likely to repeat a grade. Applying the same method to the nationally representative Panel Study of Income Dynamics data, Garces, Thomas, and Currie (2000) found long-term effects of Head Start programs in a sample of 255 young adults on the high school completion and college attendance of Whites and the crime convictions of African Americans.

A follow-up study of the federally funded Chicago Child-Parent Centers (Reynolds et al., 2001) examined 1,539 20-year-olds, two-thirds of whom attended this comprehensive, part-day preschool program at ages 3 and 4. Program participants achieved a higher rate of high school completion (50% vs. 39%) and lower rate of juvenile arrests (17% vs. 25%). The program provided an economic return of \$7.10 per dollar invested, \$3.83 of it to taxpayers.

In summary, recently reported short-term studies have questioned the value of case management as part of early childhood programs, provided guarded support for infant-toddler programs, and found that programs for 4-year-olds contribute to children's readiness to enter school and remain on grade. Recently reported long-term studies have found evidence of good preschool programs improving high school graduation rates and reducing the criminal activity of certain categories of participants.

For More Information

Administration on Children, Youth, and Families. Commissioner's Office of Research and Evaluation and the Head Start Bureau. (2001a). Head Start FACES: Longitudinal findings on program performance. Third progress report. Washington, DC: U.S. Department of Health & Human Services. Available: http://www.acf.dhhs.gov/programs/core/pubs_reports/faces/meas_99_intro.html.

Administration on Children, Youth, and Families. Commissioner's Office of Research and Evaluation and the Head Start Bureau. (2001b). Building their futures: How Early Head Start programs are enhancing the lives of infants and toddlers in low-income families: Summary report. Washington, DC: U.S. Department of Health & Human Services. Available: http://www2.acf.dhhs.gov/programs/hsb/programs/ehs/ehs2.htm. ED 448 894.

Advisory Committee on Head Start Research and Evaluation. (1999, October). *Evaluating Head Start: A recommended framework for studying the impact of the Head Start program.* Washington, DC: U.S. Department of Health & Human Services. Available: http://www2.acf.dhhs.gov/programs/hsb/research/hsreac/1999report/toc.htm.

Barnett, W. S. (in press). Does Head Start have lasting cognitive effects? In E. Zigler & S. Styfco (Eds.), *The Head Start debates (friendly and otherwise)*. New Haven, CT: Yale University Press.

Campbell, F. A., Pungello, E. P., Miller-Johnson, S., Burchinal, M., & Ramey, C. T. (2001). The development of cognitive and academic abilities: Growth curves from an early childhood educational experiment. *Developmental Psychology*, 37(2), 231-242. See also: http://www.fpg.unc.edu/~abc/.

Currie, J. (2000, April). *Early childhood intervention programs: What do we know?* Chicago: Joint Center for Poverty Research. Available: http://www.brook.edu/es/research/projects/cr/doc/currie 20000401.pdf. ED 451 915.

Currie, J., & Thomas, D. (1999). Does Head Start help Hispanic children? *Journal of Public Economics*, 74(2), 235-262.

Garces, E., Thomas, D., & Currie, J. (2000, December). *Longerterm effects of Head Start.* Working Paper 8054. Cambridge, MA: National Bureau of Economic Research. Available: http://www.nber.org/papers/w8054.

Gilliam, W. S., & Zigler, E. F. (2000). A critical meta-analysis of all evaluations of state-funded preschool from 1977 to 1998: Implications for policy, service delivery, and program implementation. *Early Childhood Research Quarterly*, 15(4), 441-473.

Goodson, B. D., Layzer, J. I., St. Pierre, R. G., Bernstein, L. S., & Lopez, M. (2000). Effectiveness of a comprehensive, five-year family support program for low-income families: Findings from the Comprehensive Child Development Program. *Early Childhood Research Quarterly*, *15*(1), 5-39.

Karoly, L. A., Greenwood, P. W., Everingham, S. S., Houbé, J., Kilburn, M. R., Rydell, C. P., Sanders, M., & Chiesa, J. (1998). *Investing in our children: What we know and don't know about the costs and benefits of early childhood interventions.* Washington, DC: Rand Corporation. Available: http://www.rand.org/publications/MR/MR898/. ED 419 621.

Oden, S., Schweinhart, L. J., & Weikart, D. P. (2000). *Into adulthood: A study of the effects of Head Start.* Ypsilanti, MI: High/Scope Press. ED 444 730.

Planning and Evaluation Service. (1998). Even Start: Evidence from the past and a look to the future. Washington, DC: U.S. Department of Education. Available: http://www.ed.gov/pubs/EvenStart/. ED 427 890.

Reynolds, A. J., Temple, J. A., Robertson, D. L., & Mann, E. A. (2001, May 9). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest: A 15-year follow-up of low-income children in public schools. *Journal of the American Medical Association*, 285(18), 2339-2346. See also: http://www.waisman.wisc.edu/cls/index.html.

Smart Start Evaluation Team. (1999, September). A six-county study of the effects of Smart Start child care on kindergarten entry skills. Chapel Hill, NC: Frank Porter Graham Child Development Center (Report to North Carolina Dept. of Health and Human Services). Available http://www.fpg.unc.edu/%7Esmartstart/reports/six-county.PDF. ED 433 154.

U.S. General Accounting Office. (1997). Head Start: Research provides little information on impact of current program. Washington, DC: U.S. General Accounting Office. See also: http://www.gao.gov, search for HEHS-97-59. ED 407 167.

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