

## EARLY EDUCATION COMMISSION

100 Edgewood Avenue N.E.  
Atlanta, GA 30303  
404.527.7200 tel  
404.527.7414 fax



# EARLY EDUCATION COMMISSION LITERATURE REVIEW

## Priority Populations

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### INTRODUCTION

There is a moderate amount of research, articles and opinion about priority populations in early care and education. Much of the literature centers on those characterized as being “at risk” or disadvantaged because of low income and does not address other populations, such as children with disabilities, the homeless, and children living with grandparents.

While some Pre-K programs are “universal” in that they are open to all, there is a fair amount of opinion around the thought that limited resources should be prioritized for disadvantaged children, who are likely to benefit most from early intervention. However, research shows that all children benefit from early interventions and, to a degree, this means that, if all groups are exposed to the same early programs, there may still be a “gap” between the disadvantaged and other children. At the same time, there is some evidence to support the fact that disadvantaged children do better when mixed with a broad population of non-disadvantaged.

Another way to look at the priority population question is heard from advocates of the Pre-K through 3<sup>rd</sup> grade approach (PK-3). Since many studies of preschool programs have shown that effects fade with time, it is suggested that emphasizing Pre-K through Grade 3 provides a continuum leans heavily on the benefits of consistency, especially for vulnerable children needing more than one or two years of intensive support. This view is a paradigm shift from the traditional view of “preschool” followed by “school.”

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Internet website article, accessed June 2009 (posted December 2008) *Many At-Risk Children Not Enrolled in Public Early Education Programs.*

National Association of Child Care Resource & Referral Agencies (NACCRRA)

<http://www.naccrra.org>

EXCERPTS: This article was posted on the NACCRRA website regarding the state of Pennsylvania, but its themes echo a fairly common situation in all states and one type of intervention which has been used to target priority populations.

"Despite evidence that early childhood education can be invaluable in getting kids started on the right foot, too many children fall between the cracks and are set up for failure, a new state school report shows. The report, "Program Reach and County Risk Assessment," by the Office of Child Development and Early Learning, shows that more children are enrolled in state and federally funded education than ever before and are doing better in school, helped by an expansion in the types of programs available and increased funding. However, six out of 10 children across the state are not being reached by these programs, the report shows. While some are enrolled in private programs not accounted for in the report, the vast majority are not receiving any specialized education until reaching kindergarten. And kindergarten can be too late, said Kathy Krivenko, program manager of the Nurse-Family Partnership program at the Behavioral Health Services of Wyoming Valley.

Ideally, education would begin before a first-time mother even became pregnant, so the mother would know what to do to encourage a healthy birth. Many of the women in the Nurse-Family Partnership begin receiving home visits from nurses during their pregnancy.

The Family Center offers various programs, including the Parent-Child Home Program, which bridges the gap for many families who don't trust the early childhood education programs and teachers. What the children learn in the educational programs is invaluable, said Susan Dinofrio, executive director of the Child Development Council of Northeast Pennsylvania Inc. Not only do they begin learning about reading, math and school subjects earlier, but they learn how to interact with other children and adults and how to adjust to school schedules, she said."

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Barnett, W.S. (September 2008). *Preschool Education and its lasting effects: Research and policy implications.*

National Institute for Early Education Research (NIEER)

Education and the Public Interest Center & Education Policy Research Unit

<http://epicpolicy.org/publication/preschool-education>

EXCERPTS: This is a policy brief which consists of a meta-analysis of a considerable body of research regarding the short- and long-term effects of preschool education on young children's learning and development. For purposes of this literature review, only the sections on priority populations are excerpted.

#### *State and Local Pre-Kindergarten Effects*

Two studies of preschool education that began in the 1960s stand out. They were well-implemented, randomized trials of public school programs. The two programs studied, which are discussed briefly below, differ from typical state and local pre-K programs in scale and in the extent of oversight, supervision, and teacher support. Both employed public school teachers who received intensive coaching and supervision,

regular in-depth discussion, and feedback regarding teaching practices. Other preschool programs with strong evidence of effectiveness have also had such teacher support, and it has been suggested that strong teacher support is likely to be important to replicating positive results. Teachers in both programs also conducted home visits.

The strongest evidence suggests that economically disadvantaged children reap long-term benefits from preschool. However, children from all other socioeconomic backgrounds have been found to benefit as well. Current public policies for child care, Head Start, and state pre-K do not ensure that most American children will attend highly effective preschool programs. Some attend no program at all, and others attend educationally weak programs. Children from middle-income families have least access, but many children in poverty also lack preschool experiences.

### *Effects of Very Early Educational Intervention*

Researchers also have studied the effects of early education and child care beginning before age 3, sometimes during the first year of life. The Abecedarian study employed a randomized trial to evaluate the effects of a full-day (six to eight hours) year-round educational program from about four months of age to kindergarten entry. Effects on reading and math achievement averaged about 0.40 standard deviations from ages 8 to 21, with only a very slight decrease in magnitude over time. The program had large effects on grade retention and special education, reducing each by 23 percentage points. Other randomized trials replicate or partially replicate the Abecedarian findings.

Multiple randomized trials have been conducted on early childhood interventions that seek to comprehensively intervene with parents and children beginning in the first years of life. These do *not* typically provide an intensive educational program to children. Overall, they have not produced the same magnitude of effects as programs focused on educating the child, and studies do not find substantive cognitive effects persisting to kindergarten entry. Examples include the Comprehensive Child Development Program (CCDP), Avance family support program, Child and Family Resource Program, New Chance, and Even Start.

The recent large-scale multi-site randomized trial of Early Head Start (birth to age 3 programs delivering center-based and home visitation services) is perhaps the most positive. It found small effects on development (0.10 for cognitive and language abilities) for children age 3 and for parent outcomes.<sup>103</sup> At age 5, no effects persisted on cognition, language, or achievement; however, small improvements (0.10 standard deviations) were found for children's behavior problems, parenting, and maternal depression.

### Recommendations

- Policy makers should not depart from preschool education models that have proven highly effective. These models typically have reasonably small class sizes and well-educated teachers with adequate pay.
- Teachers in preschool programs should receive intensive supervision and coaching, and they should be involved in a continuous improvement process for teaching and learning.
- Preschool programs should regularly assess children's learning and development to monitor how well they are accomplishing their goals.
- Preschool programs, in order to produce positive effects on children's behavior and later reductions in crime and delinquency, should be designed to develop the whole child, including social and emotional development and self-regulation.
- Because an earlier start and longer duration does appear to produce better results, policies expanding access to children under 4 should prioritize disadvantaged children who are likely to benefit most. More broadly, preschool education policy should be developed in the context of

comprehensive public policies and programs to effectively support child development from birth to age 5 and beyond.

123 citations

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Schumacher, Rachel and E. Hoffman (August 2008). *Continuity of Care: Charting Progress for Babies in Child Care Research-Based Rationale*

Center for Law and Social Policy (CLASP)

[www.clasp.org](http://www.clasp.org)

EXCERPT: This paper is a research-based rationale regarding baby and toddler care supported by the Birth to Five Policy Alliance, the Irving Harris Foundation, the John D. & Catherine T. MacArthur Foundation and an anonymous donor.

What does the research say about babies and toddlers and continuity of care? The most important relationships usually begin in the family, when an infant forms an attachment relationship with the person who is primarily responsible for the infant's care. If the baby's needs are met, the infant forms a secure attachment—or base—that creates a foundation for healthy development in early childhood and beyond. When early relationships are nurturing, individualized, responsive, and predictable, they increase the odds of desirable outcomes— building healthy brain architecture that provides a strong foundation for learning, behavior, and health. Young children with a weak early foundation have an increased risk for problems later, when they will need to build on those basic capabilities established in the early years to develop more complex skills.

Young children also need a secure base from which to explore in their *non-parental care settings*. Research has found that infants with secure attachment relationships with their care providers are more likely to play, explore, and interact with adults in their child care setting. When very young children transition from room to room according to pre-determined developmental stages or ages, they can experience high levels of distress. Higher numbers of changes in center or family child care providers in the earliest years has been linked to less outgoing and more aggressive behaviors among children at ages four and five.

A continuity of care approach can enhance the relationship between caregivers and young children in center-based child care programs by keeping young children within the same setting and with the same team of providers for an extended period, usually for the first three years of their lives. Researchers have found that the number of child care providers that support the idea of continuity of care for babies and toddlers is greater than the number that have been able to implement it.

State policymakers can take steps to provide information and training, create supportive licensing rules, and support implementation of continuity of care strategies. A critical feature to moving toward this recommendation on continuity of care is providing state funds to help child care providers learn and implement these approaches. States can use their Quality Rating and Improvement Systems (QRIS) and child care subsidy systems as vehicles for providers to meet and maintain continuity of care standards. Further, states can provide accessible information to caregivers and parents about the critical nature of early relationships.

Continuity of care practices can be supported by broader state initiatives to improve the quality and reduce turnover of the child care workforce. Reducing turnover of providers is critical; a study of three California communities at three points in time found average annual turnover rates of 30 percent for all child care center staff, and over half the centers with turnover in the last year had not been successful in replacing all the staff they had lost. The same study found that child care staff wages compared unfavorably with those of K-12 public school teachers, were not keeping pace with inflation, and were identified by teaching staff as needing improvement in order to reduce turnover. State quality enhancement policies and workforce policies, such as wage and benefits programs for child care providers and scholarship programs, can influence turnover and thus continuity of care.

17 citations

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Reynolds, Arthur. (January 2006). *PK-3 Education: Programs and Practices that Work in Children's First Decade*.

Foundation for Child Development

[www.fcd-us.org](http://www.fcd-us.org)

**ABSTRACT:** This FCD Working Paper reviews the history of the Pre-K to Third Grade (PK-3) programs and their rationale, and reviews features of the programs, the CPC Model (center-based early intervention with comprehensive educational and family support services to economically disadvantaged), and findings.

PK-3 programs began in the 1960s, but have been somewhat eclipsed by the attention given to Head Start and other preschool-only programs. The rationale for PK-3 initiatives lies in the realization that studies of preschool programs have indicated that, for some outcomes, effects fade with time. It is theorized that continuation of programs into the primary grades will both help prevent fading effects of early interventions and make transitions more successful. Key principles of PK-3 are continuity (consistency in time in learning environments), organization (structural features to increase quality), instruction (coordination of curriculum & teaching practices), and family support services.

Several extended intervention programs have successfully provided preschool and school-age services to economically disadvantaged children and families. Some of the best known include: Carolina Abecedarian Project, Head Start/Follow Through, the Chicago Child-Parent Center and Expansion Program, and the National Head Start/Public School Early Childhood Transition Demonstration Project. Components of these programs are reviewed in the Working Paper, along with excerpts from research studies conducted at various times on each of the programs, some of which show statistically significant positive results.

In its conclusion, the Foundation's Working Paper states that there is "growing empirical support for PK-3 programs and practices." Each of the four programs reviewed showed evidence of positive effects on children's schooling and development. Economic analysis shows the return to society at large ranging from \$4-\$10 per dollar invested. Linked to better school performance in third grade for participating children were these elements: preschool, reduced class sizes, teacher background and training, the quality of teacher-child relationship, parent involvement and school stability.

While the Working Paper acknowledges that integration of all PK-3 practices may not be possible or reasonable everywhere, it cites these elements of successful programs that could be emphasized separately or in combination for positive effects:

- Preschool programs focusing on language-based school readiness skills

- Reduced class sizes or additional aides to facilitate individual attention in early grades
- Promotion of parent involvement/support which promotes commitment to the child's education and promotes parents' personal growth
- School continuity and stability, with programs that do not "presume that intervention at any stage of development alone can prevent children from future under-achievement"

Four major recommendations are offered with specific strategies included in each:

- Disseminate PK-3 programs and practices based on key principles of effectiveness;
- Use evidence on cost effectiveness to better prioritize funding of PK-3 programs;
- Educate policy makers and administrators about the advantages of PK-3 programs;
- Develop new funding mechanisms for establishing PK-3 programs.

81 citations

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Gormley, William T. Jr., T. Gayer, D. Phillips and B. Dawson (2005). *The Effects of Universal Pre-K on Cognitive Development*.

American Psychological Association

[www.apa.org](http://www.apa.org)

EXCERPTS: This is a study of Tulsa, Oklahoma's universal pre-K program, comparing "young" kindergarten children who just completed pre-K (1,461) to "old" pre-K children just beginning pre-K (1,567) using Woodcock-Johnson Achievement test scores. This is a regression-discontinuity study design to reduce the threat of selection bias.

Enrollment in a state-funded prekindergarten (pre-K) program is becoming a common pathway into kindergarten for preschoolers in the United States (Pianta & Rimm-Kaufmann, in press). The number of states that administer publicly funded pre-K services has soared from 10 in 1980 to 38 in 2002, with combined enrollments exceeding 700,000 children and total state spending exceeding \$2.5 billion (Barnett, Hustedt, Robin, & Schulman, 2004; Gilliam & Zigler, 2004). Propelled by national school readiness goals, these programs have as their central aim promoting the acquisition of skills, knowledge, and behaviors that are associated with success in elementary school. Most state pre-K programs are targeted to disadvantaged children, but six states have established programs that might be described as universal in reality or aspiration: Florida, Georgia, Massachusetts, New York, Oklahoma, and West Virginia. In practice, a universal program means that the program is universally available (or nearly so) but that parents are free to enroll their children or not as they see fit. The existing universal programs— some mature (Georgia, New York, Oklahoma), some just beginning (Florida, Massachusetts, West Virginia)—are aimed at 4-year-olds.

Preliminary results from a growing body of research on the effects of pre-K programs are encouraging, but not entirely convincing. A careful meta-analysis of state-funded preschool programs in 13 states found statistically significant positive impacts on some aspect of child development (cognitive, language, or social) in all of the states. A study of Georgia's universal pre-K program found that 82% of former pre-K students rated average or better on third-grade readiness in comparison to national norms (Henry, Gordon, Mashburn, & Ponder, 2001). A more recent study found that economically disadvantaged children attending Georgia's pre-K program began preschool scoring below national norms on a letter and word recognition test but began kindergarten scoring above national norms (Henry et al., 2003).

In many instances, these child outcome findings were not disaggregated by characteristics of the child or the pre-K setting. Some pre-K evidence, however, as well as the early intervention literature, suggests that

*the largest effects of such programs accrue to children from lower income families and from non-White racial groups* (Campbell et al., 2002; Gormley & Gayer, 2005; Reynolds, Temple, Robertson, & Mann, 2001).

This study examines the effects of school-based universal pre-K attendance on children at the point of kindergarten entry. The results provide solid support for the benefits that such a program can have on the test scores of young children of differing ethnic and racial groups and from differing socioeconomic backgrounds. Specifically, for those who select into the pre-K program, the program was found to have statistically significant effects on children's performance on cognitive tests of prereading and reading skills, prewriting and spelling skills, and math reasoning and problem-solving abilities.

*The pre-K program was found to benefit children from all racial- ethnic groups comprising substantial portions of the Tulsa population: Hispanics, Blacks, Native Americans, and Whites. The pre-K program was also found to benefit children from diverse income brackets, including children eligible for a full-price lunch, a reduced-price lunch, and no lunch subsidy at all.*

Can the Oklahoma experience be replicated elsewhere? Although it is difficult to generalize, we should note Oklahoma's high teacher education requirements, which other researchers have found to be a strong predictor of high-quality environments for young children (NICHD Early Child Care Research Network, 1999, 2002). Also noteworthy is Oklahoma's willingness to compensate pre-K teachers at the same level as elementary and secondary school teachers in the public schools, which helps pre-K programs to recruit and retain talented teachers.

45 citations

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Ramey, Craig T. and F. Campbell, M. Burchinal, M. Skinner, D. Gardner, S. Ramey (January 2000).  
***Persistent Effects of Early Childhood Education on High-Risk Children and Their Mothers.***  
Applied Developmental Science, Vol. 4, Issue 1

**ABSTRACT:** Child and mother outcomes are reported for the Abecedarian Project, an early childhood education, pediatric healthcare, and family support program for high-risk children and their mothers. Three randomized intervention conditions for at-risk participants were compared to a control condition. Randomized control group participants received family support social services, low-cost or free pediatric care, and child nutritional supplements but no additional educational program beyond what the parents and the local school system provided. The local community was generally affluent and well educated; disadvantaged families represented a small minority whose welfare was a high social and educational priority.

The educational intervention conditions were (a) preschool education for the first 5 years of life plus a supplementary kindergarten through 2nd grade Educational Support Program (Preschool plus K-2 Support), (b) preschool education (Preschool Only), and (c) K-2 Educational Support Program (K-2 Only). Child outcomes were assessed with respect to cognitive development, academic achievement, grade retention, and special education placements. For mothers, the effect of having educational childcare during the preschool period was examined with respect to maternal educational gains and employment. Positive and systematic cognitive and academic achievement differences were found for children in the preschool treatment conditions, particularly when that condition was combined with the K-2 Educational Support Program. High-quality, consistently available preschool education was also associated with greater maternal educational advancement and higher levels of employment particularly for teenage mothers.

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*Program Viewpoint, EEC Field Trip to Drew Charter School Pre-K program.*

Remarks to attendees, Comer Yates

March 19, 2009

Drew Charter School Pre-K is a research-based program created as a partnership among Drew Charter Elementary, the Rollins Center for Language and Learning of the Atlanta Speech School and the CF Foundation, Inc. The program is focused on language and literacy to close the achievement gap in reading and learning readiness among disadvantaged children with significantly fewer vocabulary words than their non-disadvantaged counterparts.

Teachers are taught to stimulate language and to be appropriate role models for language. The model is focused on language and literacy, specifically the language deficit or vocabulary gap between advantaged and disadvantaged children. The program is designed to make children "home proof" and, by design, does not include a parent support or involvement component, which differs from many similar programs. The focus is on intense, language-based activities with the children during the school day. The ultimate focus is on 3<sup>rd</sup> grade readiness.

Drew opened its first Pre-K class for 20 students in the fall of 2007 and a second Pre-K class to serve a total of 40 students in 2008. Paramount to the Pre-K program is an emphasis on the oral language development of the children in the class. They believe that the importance of oral language development in fostering the cognitive, literacy, social and emotional development of young children through explicit instruction, classroom discourse, and dialogue between and among teachers and students is essential to helping young children reach their fullest potential and to be successful in school and eventually the work place.