

Child **TRENDS** RESEARCH BRIEF

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School Readiness: Helping Communities Get Children Ready for School and Schools Ready for Children

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Many communities across the country have set for themselves the ambitious goal of enhancing school readiness. But what does school readiness mean, and how do communities know whether they have achieved it? Child Trends developed this Research Brief and other tools to help communities invest wisely in school readiness initiatives. The brief begins by summarizing recommendations from the National Education Goals Panel for defining and assessing school readiness and then presents a framework for community investments based on an "ecological" view of child development. In other words, this framework not only considers factors related to the child, but also to the child's family, early childhood care and education, schools, neighborhood, and the larger society. This Research Brief updates one that Child Trends published in August 2000. It includes some new research findings, as well as new sections on two additional factors that affect school readiness: emergent literacy and the media.

What is School Readiness?

The bipartisan National Education Goals Panel (NEGP) was established in July 1990 to assess and report on state and national progress in meeting the eight National Education Goals set for the nation. The first of these goals stated "by the year 2000, all children in America will start school ready to learn."¹ In addressing this important goal, the NEGP identified three components of school readiness: (1) readiness in the child; (2) schools' readiness for children; and (3) family and community supports and services that contribute to children's readiness.

Readiness in children. The NEGP went beyond the conventional wisdom that limited school readiness in children to "narrowly constructed, academically-driven definitions of readiness."² Instead, based on the research on child development and early education, the Panel argued for a broader definition that included physical, social, and emotional well-being, as well as cognitive readiness.² Ongoing research continues to confirm the need to think about children's readiness for school as

multi-faceted.^{3, 4} The NEGP and subsequent research highlighted five dimensions of children's school readiness in its report *Reconsidering Children's Early Development and Learning: Toward Common Views and Vocabulary*:

- **Physical well-being and motor development.** This dimension covers such factors as health status, growth, and disabilities; physical abilities, such as gross and fine motor skills; and conditions before, at, and after birth, such as exposure to toxic substances.
- **Social and emotional development.** *Social development* refers to children's ability to interact with others. A positive adaptation to school requires such social skills as the ability to take turns and to cooperate. *Emotional development* includes such factors as children's perceptions of themselves and their abilities to both understand the feelings of other people and to interpret and express their own feelings.
- **Approaches to learning.** This dimension refers to the inclination to use skills,

knowledge, and capacities. Key components include enthusiasm, curiosity, and persistence on tasks, as well as temperament and cultural patterns and values.

- **Language development.** This dimension includes verbal language and emergent literacy. Verbal language includes listening, speaking, and vocabulary. Emergent literacy includes print awareness (e.g., assigning sounds to letter combinations), story sense (e.g., understanding that stories have a beginning, middle, and end) and the writing process (e.g., representing ideas through drawing, letter-like shapes, or letters).
- **Cognition and general knowledge.** This aspect includes knowledge about properties of particular objects and knowledge derived from looking across objects, events, or people for similarities, differences, and associations. It also includes knowledge about societal conventions, such as the assignment of particular letters to sounds, and knowledge about shapes, spatial relations, and number concepts.

Readiness of schools. The NEGP urged a close examination of “the readiness and capacity of the nation’s schools to receive young children.”² To aid this examination, the Panel proposed ten characteristics of “ready schools” – schools that are prepared to support the learning and development of young children. As stated in the Panel’s report, *Ready Schools*, such schools:

- **smooth the transition between home and school.** For example, they show sensitivity to cultural differences and reach out to parents and children to prepare children for entering school.
- **strive for continuity between early care and education programs and elementary schools.**
- **help children learn and make sense of their complex and exciting world.** For example, they utilize high-quality instruction and appropriate pacing, and demonstrate an understanding that learning occurs in the context of relationships.

- **are committed to the success of every child.** They are sensitive to the needs of individual children, including the effects of poverty, race, and disability.
- **are committed to the success of every teacher and every adult who interacts with children during the school day.** They help teachers develop their skills.
- **introduce or expand approaches that have been shown to raise achievement.** For example, they provide appropriate interventions to children who are falling behind, encourage parent involvement, and monitor different teaching approaches.
- **are learning organizations that alter practices and programs if they do not benefit children.**
- **serve children in communities.** They assure access to services and supports in the community.
- **take responsibility for results.** They use assessments to help teachers and parents plan for individual students, and to measure accountability to the community.
- **have strong leadership.** They are led by individuals who have a clear agenda, the authority to make decisions, and the resources to follow through on goals, visibility, and accessibility.

Family and community supports for children’s readiness. The NEGP identified three high-priority objectives that reflect important early supports for school readiness.⁵ As stated in the Panel’s *Special Early Childhood Report*:

- All children should have access to high-quality and developmentally appropriate preschool programs that help prepare them for school.
- Every parent in the United States will be a child’s first teacher and devote time each day to helping his or her preschool child learn. To accomplish this, parents should have access to the training and support they need.
- Children should receive the nutrition, physical activity, and health care they need to

arrive at school with healthy minds and bodies and to maintain mental alertness. To this end, the number of low-birthweight babies should be significantly reduced through enhanced prenatal care.

How Should School Readiness Be Measured?

Testing is a commonplace feature of American education. Used properly, tests and other assessment tools can help educators design and deliver the appropriate services for individual children and can facilitate communitywide or statewide tracking of children's status at kindergarten entry and later on. But tests and other assessment tools can also be misused.⁶ For example, they may result in labeling young children prematurely or inaccurately. They may also lead communities to focus just on the child's skills and overlook factors such as the readiness of schools and the availability of community supports.

Purposes of Assessment. Recognizing that tests and other assessment tools have both strengths and limitations, the NEGP identified four specific purposes for assessing the readiness of young children. As stated in the Panel's report, *Principles and Recommendations for Early Childhood Assessments*,⁷ the four purposes are:

- to identify what individual children already know and what they need more help with;
- to identify children who may need health or other special services (to determine whether follow-up testing is needed, *not* for diagnosis);
- to monitor trends and evaluate programs and services in order to inform aggregate decisions; and
- to assess academic achievement to hold individual students, teachers, and schools accountable for desired learning outcomes.

The Appropriate Uses of Assessment Tools. The Panel noted in particular that assessments should be used only for their intended purposes. Assessments designed to track achievement at the school district or community level need to differ from the tests used

to identify learning problems in a particular child. Assessments should also be age- and linguistically-appropriate, and ideally should be based on multiple sources of information (for example, obtaining parent and teacher informants as well as direct assessments of the child, where possible). Educators should also recognize that assessment results for individual children might not be reliable until children are in third grade or older.

A Framework for Community Investments in School Readiness

An extensive body of research on child development helps identify the factors that influence children's readiness for school, beginning with those closest to the child and moving outward to encompass the family, early care and education, schools, the neighborhood, and beyond that, the media. This *ecological view* of child development provides a useful framework for understanding where and how communities can intervene to support and promote healthy child development in general and school readiness in particular.

There are many programs across the country that may well be effective in promoting school readiness. In this brief, we limit our examples to several programs that have been evaluated rigorously or for which longitudinal data (with adequate consideration of background characteristics) are available.

Child Health. Children's early physical and mental health are important determinants of their later readiness for school and school success. Below we review findings on several important aspects of children's health.

- **Health in the early years** affects multiple dimensions of children's readiness for school. For example, low-birthweight, preterm infants are especially at risk for poor health and developmental outcomes. One effective intervention with infants in improving outcomes for these children is the Infant Health and Development Program (IHDP). It includes pediatric monitoring, referral and follow-ups, home visits, participation in high-quality early education, and support group meetings for par-

ents. Children participating in IHDP had gains in receptive language, cognitive development, visual-motor skills, and spatial skills at 36 months.⁸

- **Immunizations.** Immunizations protect children from vaccine-preventable diseases that can cause school absences and limit children's ability to achieve in school. Health providers, communities, and government agencies have tried to boost immunization rates by monitoring coverage rates and by providing child-specific prompts through reminder/recall systems or registry programs. Governmental purchase programs, such as Vaccines for Children, have also improved access to free or reduced-cost vaccines for some disadvantaged populations. Efforts are now under way to include recommended vaccines in all basic health care plans and to require private insurers to assess the immunization status of their enrollees.^{9, 10}
- **Nutrition.** Poor nutrition affects children's physical and intellectual development and may therefore hinder early school success.¹¹ Programs such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and Food Stamps have been effective in increasing the nutritional intake of children.¹²
- **Unintentional Injury.** Unintentional injuries (such as car crashes, bicycle accidents, or fires) can result in long-term deficits in cognitive, behavioral, and motor functioning. Parent education, accompanied by additional supports such as child safety features in automobiles, is an effective way to reduce injuries.¹³ Community-wide or school-based education campaigns, reinforced by local legislation, may also be effective in preventing unintentional injury.
- **Childhood Emotional and Behavioral Problems.** Children whose mothers are depressed or have other mental health problems are themselves at greater risk of behavioral and emotional problems.¹⁴ Addressing parents' psychological problems may have benefits for children.

Family Factors. Research consistently shows the importance of the family environment in shaping children's early development. Strengthening families is another approach communities can take to enhance children's readiness for school.

- **Family Economic Risk.** Poverty is related to child outcomes in many ways. Compared to more affluent children, poor children have worse nutrition and more physical health problems on average, as well as lower average scores on measures of cognitive development (such as verbal ability, reading readiness, and problem solving).^{15, 16} Poverty is also associated with an increase in emotional and behavioral problems.¹⁷ Government and private organizations have experimented with a broad range of approaches to lift families out of poverty or to address its negative consequences. One set of approaches seeks to raise family incomes through employment, income supplements, or a combination of the two. Another set of approaches seeks to address problems associated with poverty through quality early child care, improved health care and nutrition, and parenting education and family support. Some experimental interventions for low-income families (including the New Hope Project and the Minnesota Family Investment Program) have provided wage supplements or earnings disregards to increase family income and have seen some positive effects on children's cognitive and school outcomes.^{18, 19}
- **Family Structure.** Research suggests that wanted children who are raised by both of their biological parents in a low-conflict family have more optimal outcomes in the early years of school.^{20, 21} Children who live with only one parent may benefit from the active involvement of their other parent, as long as that contact is positive, although the research in this area is limited and mixed. Financial support from non-resident parents has been found to promote children's school success.^{22, 23} Since non-resident fathers' involvement tends to decrease over time, it

may be worth exploring ways to keep men involved when children are young (in terms of spending time, having a positive relationship with their children, and providing financial support) at this critical point in their children's development.

- **The Home Environment.** Several different components of the home environment can affect child outcomes. For example, the way parents and children interact and the physical environment have been found to be related to children's cognitive, social, and emotional development.^{26, 27} Results across multiple studies seem to suggest that programs that focus on parenting practices and parent-child interactions can be effective, although the particular program model and its implementation are important.^{25, 28}

Early Childhood Care and Education.

Quality early childhood care and education programs can enhance cognitive, emotional, and social development, especially among low-income preschoolers.²⁹ Participation in such programs can lead to gains in cognitive test scores, better kindergarten achievement, lower rates of grade retention and special education placement, and higher rates of high school graduation.³⁰ Several studies have demonstrated the effectiveness of quality early childhood education programs, particularly for children in poverty. These include the High/Scope Perry Preschool Project³¹ and the Carolina Abecedarian Project.³² When community-based child care is of higher quality, this also has implications for children's academic achievement in the early years of elementary school.³³

Children benefit from environments that not only provide basic care, but that also promote the development of cognitive, language, social, and emotional skills, as well as health. Higher quality care settings, in addition to having better health and safety practices, are also more likely to have caregivers who offer care that is more stimulating and supportive. Structural features of care that facilitate such interactions include better staff-child ratios,

group size, the education and training of caregivers, and the compensation of caregivers.³⁴

School Transitional Practices. A smooth transition into kindergarten and formal schooling can help set young children on a course for academic achievement and success. For many five-year-olds, the transition from preschool or home to kindergarten can be stressful. Children face new expectations for independence and responsibility, as well as goals that are more formal than those in preschool or home settings. They also must learn to interact with teachers in ways that center on academic progress and must negotiate more formalized routines. They often face larger class sizes (or a group learning setting for the first time) as well.³⁵

Despite the fact that kindergarten entry is a critical period in children's lives, many schools lack specific guidelines to facilitate this transition; nor is there extensive research on best practices in this area. The broader literature on child development and early childhood education offers some general guidance for transition practices that may be promising:

- contact between kindergartens and preschools so that kindergarten teachers can plan for individual students and so that children know what to expect during the transition;³⁶
- contact between schools and homes, before and after entry into school, so that parents can be actively involved in their children's education;^{37, 38} and
- connections between schools and community resources so that children can receive services they need as soon as possible.

Emergent Literacy. Emergent literacy refers to the earliest signs of interest in and ability to read and write. Emergent literacy skills at kindergarten entry are a good predictor of children's reading abilities throughout their educational careers. Exposure to literacy activities early in life, both at home and in early childhood care and education programs, is essential to the development of these skills.³⁹

■ **Family Settings.** Children who live in homes where reading and writing are common and valued tend to experience more success with reading as they begin school.⁴⁰ Children also benefit when they have access to books and when their parents read to them.⁴¹ Low-income households often face challenges, financial and otherwise, in exposing their children to books and reading. A number of approaches have been taken to address this situation. One promising family-based intervention is to provide free children's books to low-income families through such programs as Reach Out and Read.⁴² Several other interventions have been tried, with varying degrees of success, including home visitation programs, such as the Home Instruction Program for Preschool Youngsters,⁴³ and family literacy programs, such as Even Start.⁴⁴ Research suggests that the effectiveness of such programs depends on such factors as the extent of families' participation.

■ **Early Childhood Care and Education Settings.** Access to books and printed material and being read to one-on-one or in small groups in early childhood care programs also help prepare preschoolers to become readers.⁴⁵ Research on interventions in early childhood care and education settings suggests that a combined approach of book reading in which children are highly engaged, along with some phonological training (for example, teaching children to detect rhymes and categorize sounds), is effective in improving emergent literacy skills.⁴⁶ Teaching children to recognize the sounds of letters has also been shown to help children learn to read.⁴⁵

Community/Neighborhood Factors. Neighborhood poverty is associated with less favorable child and youth outcomes, including school readiness and long-term academic attainment.⁴⁷ In contrast, residing in a neighborhood with less than 10 percent poverty appears to predict more favorable scores on tests of cognitive abilities, beyond the influence of family characteristics.⁴⁸ Having relatively more affluent neighbors appears to become more important as children

enter school. Young children's behavioral and physical outcomes also appear to be influenced by the level of unemployment in neighborhoods, beyond family characteristics.⁴⁹

These findings suggest that interventions focused on aiding low-income families to relocate to more affluent neighborhoods might improve children's chances of school success. In the Moving to Opportunity demonstration project sponsored by the U.S. Department of Housing and Urban Development, findings from the Baltimore site indicate that families given housing vouchers restricted to low poverty areas tend to move to suburbs or low poverty urban areas, and in doing so, increase their children's educational opportunities.⁵⁰ The alternative strategy of investing in new businesses and industry in areas with high unemployment, or providing job-training and/or job-placement assistance for unemployed individuals, should also be evaluated for its implications for children.

Beyond the Community: Media Effects. Most studies of the effects of media on children have focused on television, due in part to the relative newness of other types of media (e.g., video games and the Internet). Research indicates that educational programs such as *Sesame Street* can contribute to young children's letter and number recognition, vocabulary, and positive attitudes towards school, whereas cartoons and adult programs do not.⁵¹ Programs designed to improve the way children treat and regard others and to instill moral values, such as *Mr. Rogers' Neighborhood*, when combined with related, reinforcing activities, have the potential to increase preschoolers' positive social behavior.⁵² Research also finds that watching violent programs can contribute to children's aggressiveness. It is also associated with a decrease in fantasy play among preschoolers.⁵³

Parental behavior can be an important determining factor in how much and what young children watch on television. Parents and other adults can monitor the type and amount of television that young children watch and, by doing so, help shape children's viewing habits and preferences.⁵⁴ Adults also can mediate the effects of television

on children's social, creative, and aggressive behaviors by discussing and interpreting the behavior of characters on the shows children watch.⁵⁵

Implications for Community Action

As communities begin to initiate new or augment existing school readiness efforts, decision makers, funders, and other community leaders can combine knowledge of their particular community's needs, resources, and priorities with information available from research. One important resource is the work carried out by the National Education Goals Panel, building on child development and early education research. The NEGP's work on defining the components of school readiness and the uses and misuses of readiness assessments (and more recent research building on this work) is essential background information for any local initiative. The research base also provides a structure for thinking about where to target community initiatives to strengthen children's school readiness (the child, family, school, and/or neighborhood). Finally, research provides examples of effective initiatives that helped shape positive early school outcomes, as well as promising directions for further initiatives. Building on a research base of what works, communities will be able to put their resources to use more effectively in developing ready schools and ready students.

This *Research Brief* is based on the executive summary of a longer Child Trends' report, *Background for Community-Level Work on School Readiness: A Review of Definitions, Assessments, and Investment Strategies* (Halle, T., Zaslow, M., Zaff, J., Calkins, J., & Margie, N., 2000) prepared for the John S. and James L. Knight Foundation. The full report can be ordered through our Web site, www.childtrends.org, or by calling our Publications Office at (202) 362-5580. In addition, a supplementary "What Works" table summarizing findings from the research literature and their implications for targeted activities to improve school readiness is available for free on the Child Trends Web site.

For more information on the National Education Goals Panel, visit its Web site: www.negp.gov.

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