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

Child Trends Research Brief

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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? This research brief is intended to help communities invest wisely in school readiness initiatives. It begins by summarizing recommendations from the National Education Goals Panel (NEGP) for defining and assessing school readiness. The brief then presents a framework for community investments based on an ecological view of child development. In other words, this framework considers factors related not only to the child, but also to the child's family, early childhood care and education, schools, and neighborhood.

What is School Readiness?
The National Education Goals Panel (NEGP) was established in July 1990 and is comprised of a bipartisan group of federal and state officials who assess and report on state and national progress toward achieving the eight National Education Goals set for the nation. The first of these goals states "by the year 2000, all children in America will start school ready to learn." In addressing this first, 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." 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. Ongoing research continues to confirm the need to think about children's readiness for school as multi-faceted. The NEGP highlighted five dimensions of children's school readiness in their report, Reconsidering Children's Early Development and Learning: Toward Common Views and Vocabulary:

- **Physical well-being and motor development.** This dimension covers such things as health status, growth, and disabilities. It also includes physical abilities like gross and fine motor skills, as well as 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 socially. A positive adaptation to school requires such social skills as the ability to take turns and to cooperate. Emotional development includes a child's perception of him/herself, the ability to understand the emotions of other people, and the ability to interpret and express one's 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 emerging literacy. Verbal language includes listening, speaking, and vocabulary. Emerging 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 writing process (e.g., representing ideas through drawing, letter-like shapes, or letters).

**Cognition and general knowledge.** This 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, knowledge about shapes and spatial relations, and number concepts (e.g., one-to-one correspondence of numbers and objects, and the association of counting with the total number of objects).

**Readiness of schools.** Children's readiness is a necessary part of defining school readiness, but it is not sufficient. The NEGP urged a close examination of "the readiness and capacity of the nation's schools to receive young children." To aid this examination of schools, the NEGP proposed ten characteristics of "ready schools" - schools that are ready to support the learning and development of young children. As stated in the Panel's report, *Ready Schools*, ready schools:

- **smooth the transition between home and school.** For example, they show sensitivity to cultural differences and have practices to reach out to parents and children as they transition into 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, appropriate pacing, and an understanding that learning occurs in the context of relationships.

- **are committed to the success of every child.** Schools should be aware of the needs of individual children, including the effects of poverty and race. They should attempt to meet special needs within the regular classroom.

- **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 for purposes of accountability to the community.

- **have strong leadership.** Leaders should have a clear agenda, the authority to make decisions, the resources to follow through on goals, visibility, and accessibility.

**Family and community supports for children's readiness.** The NEGP identified three objectives that reflect important early supports or foundations for school readiness. 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 this end, 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 community-wide or statewide tracking of children's status at kindergarten entry and later on. But tests and other assessment tools can also be misused. 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, the four purposes are:

- to promote children's learning and development in order to shape instruction for individual children by identifying what they 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 and the Limitations of Assessment Tools. The Panel noted in particular that assessments should be used only for their intended purposes – i.e., tests intended for one purpose in a given situation should not be used for another purpose, and the sample used should be appropriate to the purpose of the assessment. For example, a public health department uses a different approach to track disease outbreaks than a pediatrician uses to identify illness in a child. In the same way, 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-appropriate and linguistically appropriate, and ideally should include multiple sources of information (for example, obtaining parent and teacher informants as well as direct assessments of the child, where possible). Educators who use assessments to make decisions about individual children should also recognize that assessment results might not be reliable until children are in third grade or older.

While a great deal of thought has been given to appropriate measures of children's readiness, there is not yet consensus on measures of the readiness of schools. Regarding supports for readiness, the NEGP was able to identify a delimited set of indicators for community supports of health, parenting, and early childhood care and education. But the Panel acknowledged that these are just starting points. For example, most of these indicators are only available at the national level, with common state indicators only available for health. Efforts are now underway to develop further state-level indicators?
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, and the neighborhood. 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. This approach may be especially helpful to communities as they set priorities for investments in school readiness.

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 rigorously evaluated 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 parents. Children participating in IHDP had gains in receptive language, cognitive development, visual-motor skills and spatial skills at 36 months.⁵,⁸

- **Immunizations.** Immunizations protect children from communicable diseases that can cause children to miss days of school and/or result in disabilities that can potentially limit their ability to achieve in school. States, communities, and private organizations across the country have experimented with a range of approaches to boost immunization rates. In general, child-specific "prompts," such as letters that contain information about individual children, combined with monetary incentives to families, appear to be helpful. A more cost-effective alternative to monetary incentives may be increased access to public health institutions.⁹

- **Nutrition.** Poor nutrition affects children's physical and intellectual development and may therefore hinder early school success.¹⁰ Programs such as the Special Supplement Nutrition Program for Women, Infants, and Children (WIC) and Food Stamps have been effective in increasing the nutritional intake of children.¹¹

- **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 like child safety features in automobiles, is an effective way to reduce injuries.¹² Community-wide or school-based education campaigns, reinforced by local legislation, may also be effective in preventing unintentional injury.

- **Childhood Emotional and Behavioral Problems.** Studies suggest that children are strongly affected by their parents' mental health. For example, children whose mothers are depressed are themselves at greater risk of behavioral and emotional problems.¹³ Addressing parents' psychological problems may have benefits for children, as may interventions that jointly address parent and child problems, such as depression.

* A supplementary table summarizing findings from the research literature and their implications for targeted activities to improve school readiness is available for free from www.childtrends.org, publication#2000-16.
Family Factors. Research consistently shows the importance of the family environment in shaping children's early development. Family circumstances at the time of a child's birth and during the first few years of life can have long-lasting effects on children's development in general, and on children's adjustment to school in particular. Strengthening families is another approach communities can take to enhancing children's readiness for school.

Family Economic Risk. Poverty is related to child outcomes in many ways. Poor children have worse nutrition and more physical health problems on average than children who are not poor. While there is wide variability, on average, poor children score lower on standardized tests for verbal ability early in development. Negative effects of poverty have also been found by age five on cognitive skills, including reading readiness, number skills, problem solving, creativity and memory. Poverty is also associated with an increase in emotional and behavioral problems. 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.

School. 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. Since non-resident fathers' involvement tends to decrease over time, it may be worth exploring ways to keep men involved (in terms of spending time, having a positive relationship with their children, and providing financial support) at this critical point of their children's development.

Interventions that delay or reduce childbearing among young women and men, and/or increase the spacing between children seem important as well. One particularly promising strategy is to provide first-time teen mothers with home visits from a public health nurse who provides important information on prenatal care, child development, and family planning. Another promising strategy is to expand outreach to men of all ages for pregnancy prevention services.

The Home Environment. Several different components of the home environment can affect child outcomes. For example, the way parents and children interact, the physical environment, and parents' emotional well-being have all been found to be related to children's cognitive, social, and emotional development. 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.

Early Childhood Care and Education. Quality early childhood care and education programs can enhance cognitive, emotional and social development, especially among low-income preschoolers. Participation in such programs can lead to immediate gains in cognitive test scores, better kindergarten achievement, lower rates of grade retention and special education placement, and
higher rates of high school graduation.\textsuperscript{28} Several studies have demonstrated the effectiveness of quality early childhood education programs, particularly for children in poverty. These include the High/Scope Perry Preschool Project,\textsuperscript{29} the Carolina Abecedarian Project,\textsuperscript{30} and the Cost, Quality, and Outcomes Study.\textsuperscript{31} Two lessons about best practices in early childhood care and education can be derived from these studies:

- **Quality matters.** Children benefit from environments that not only provide basic care, but that 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.\textsuperscript{32} Higher quality care involves interactions with care providers who are both more responsive and sensitive to individual children's needs, and cognitively stimulating, providing language input and guiding the child to explorations of the environment. 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.\textsuperscript{32}

- **Contact between parents and the program is important.** Parent involvement should be sought and encouraged so that parents know what their children are learning and are able to extend early education into their homes. The Head Start model emphasizes these collaborations between schools and homes, as well as with community programs and service providers to increase the likelihood that children will receive all of the services they need.\textsuperscript{33}

**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. They also must learn to interact with teachers in ways that center around academic progress and must negotiate more formalized routines. They often face larger class sizes as well.\textsuperscript{34}

Despite the fact that kindergarten entry is a critical period in children's lives, many schools do not have specific guidelines to facilitate this transition, nor is there extensive research on best practices in this area. Nevertheless, the broader literature on child development and early education does offer some general guidance for easing the transition to kindergarten:

- There should be 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.\textsuperscript{35}

- There should be contact between schools and homes, before and after entry into school, so that parents can be actively involved in their children's education.\textsuperscript{36,37}

- There should be connections between schools and community resources so that children can receive services they need as soon as possible.

- Little evidence has been found to support the practice of holding children out of kindergarten for a year, and the effects can be detrimental, especially for poor and minority students.\textsuperscript{38}

**Community/Neighborhood Factors.** Neighborhood poverty is associated with less favorable child and youth outcomes, including school readiness and long-term academic attainment.\textsuperscript{39} For example, children in high poverty areas are at a greater risk for low birth weight, infant mortality, child abuse, behavior problems, teen pregnancy, and school dropout.\textsuperscript{40} 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 fami-
ly characteristics. Relatively more affluent neighbors become more important as children enter school. For example, they model important behaviors, such as regular school attendance and parental employment. Young children's behavioral and physical outcomes also appear to be influenced by the level of male unemployment in neighborhoods, beyond family characteristics.

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. 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 on children.

**Implications for Community Action**

As communities begin to initiate new or augment existing school readiness efforts, it is essential that decision makers, funders, and other community leaders marshal the full measure of their resources. In particular, they 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 the 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) are 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, neighborhood). Finally, the research provides examples of effective initiatives which 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 providing ready schools and ready students.

This research brief is 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, Zaslows, Zaff, & Calkins, 2000) prepared for the John S. and James L. Knight Foundation.

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

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