School Readiness

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In 1989, then President Bush and the state governors established six goals for education in America. Goal number one was that “by the year 2000, all children in America will start school ready to learn.”1 There are few who would dispute the importance of this goal. Arriving at school healthy and developmentally ready to participate actively in classroom activities undoubtedly plays an important part in a child’s school experiences. On its face, and certainly in spirit, making sure that children start school ready to learn is a laudable goal.

Even though the goal of having children start school ready to learn is praiseworthy, as a guide to policy implementation, this statement is proving problematic. In general, to be an effective guide for policy, a goal statement should use well-defined terms, be clearly stated, and be measurable. However, the concept of “readiness” is poorly defined and is interpreted differently in different contexts. Even the basic assumptions of the goal statement have been contested: is it the children who should be ready for school or the schools that should be ready for the children, or the society that should provide appropriate support for the children and the schools? Regardless of who or what is to be ready, there is no system in place to measure how ready to learn our nation’s children are as they begin school or how well equipped schools are to receive children at different levels of development. This is due, at least in part, to the lack of consensus on what constitutes readiness and how to measure it. The decentralization of the U.S. education system, with monitoring and decision making shared by state governments and local school districts, also contributes to the difficulties in measuring school readiness.

Despite the general lack of agreement on what constitutes readiness or how to measure it, this Child Indicators article explores some of the issues surrounding measurement of the nation’s progress toward reaching its readiness goal. After all, most children born in 1995 will start kindergarten in the year 2000. It is therefore appropriate to ask not only how we can ensure that these children are, in fact, ready to learn by the time they start school, but also how we will know whether they are ready and whether
policies instituted between now and then can increase the likelihood of their being ready. This article also briefly considers the unresolved issue of where responsibility for readiness lies—whether it is the child’s responsibility to be ready for school at the appointed time or the school’s responsibility to be ready for the child no matter what his or her background, experience, and developmental status.

This short article is arranged in three parts. The opening section examines three concepts of readiness. The next section examines national survey data on parent and teacher ideas about what constitutes readiness for individual children. The data also provide a rough indication of how close the nation was to achieving the readiness goal in the early 1990s from the points of view of parents and teachers. Although these survey data do not offer an official or objective measure of the readiness status of children entering school, in the absence of other national data collection efforts, such survey data may provide the only means of directly evaluating progress on readiness for some time to come. The last section of this article examines some of the indicators and benchmarks that have been proposed to measure progress toward the readiness goal.

Defining Readiness

The statement that all children “start school ready to learn” combines in a single goal statement two historically different concepts—readiness for learning and readiness for school. Readiness to learn, generally, has been thought of as the “level of development at which an individual (of any age) is ready to undertake the learning of specific materials.”2 When applied to a population or group, it refers to the age at which the average individual has the specified capacity. This concept of readiness, although perhaps useful in some situations, is not very helpful in assessing progress toward the national goal. As the National Association for the Education of Young Children has pointed out, “Every child, except in extreme instances of abuse, neglect, or disability, enters school ready to learn.”3 Merely being “ready to learn” something may not, however, guarantee success in school.

The concept of school readiness tethers the notion of readiness for learning to a standard of physical, intellectual, and social development that enables children to fulfill school requirements and to assimilate a school’s curriculum.2 Unfortunately, while some idea of a standard is nearly universal in readiness discussions, there is little agreement as to exactly what that standard should include.4 Some studies have examined characteristics of children which are associated with higher achievement test scores, but there is little agreement regarding the totality of the necessary and sufficient ingredients for readiness.5 As a result, there is a lack of good tools for measuring the school readiness of individual children, and the meaning of the available data is often debated.

Faced with a dearth of good tools and a desire to make sure that only children who are developmentally ready enter school, some school systems have resorted to entrance testing. A 1989 survey (the most
recent data available) found that kindergarten or school entrance screening tests were required in 16 states, and in 7 additional states, more than half of the districts required testing. The use of readiness screening tests as tools for determining fitness to enter school is frequently denounced by educators and others. For instance, the American Academy of Pediatrics recently issued a statement declaring that readiness screening instruments should not be the sole criterion for determining when a child enters school. Holding children to a standard also introduces the possibility that children will be judged not ready because of the substantial variability in the rate of normal child development among children of similar ages. Variability in the environments to which children are exposed during their preschool years also contributes to variability in school readiness. And, because different schools have different requirements and curricula, children who may be considered ready for some schools might be judged unready for others. Moreover, whether children themselves are ready for school may not be an important issue in flexible school systems which are designed to accommodate entering children with different levels of ability and maturation.

Historically, chronological age has served as the major criterion for school entry. Because children develop at different rates, however, the establishment of a specific chronological age range for children to begin school ensures that some children who satisfy the chronological age criteria will not be as able to fulfill rigorous school requirements as others. This variability in readiness due to the large normal variability in development among children of the same age is compounded by the variability in the ages at which children actually enter kindergarten. While many children enter kindergarten as young as age four, the majority enter at age five, and about 8% are held back each year to begin school when they are age six. Because some aspects of development, such as language skills, are strongly related to chronological age, older children typically do better in school during the early grades than do their younger classmates. This has led to the policy of deferring school entry for some children—who are judged, either on the basis of age or ability, not ready for school—so that they may be better prepared for school entry in subsequent years. The policy of delaying kindergarten entry is carried to its extreme in those school districts and states that have systematically raised the official age for school entry. For instance, the state of Florida has raised the entrance age by four months since 1975 by moving the cutoff birth date for entry from January 1 back to September 1. This policy, however, does not really address age-related variability in the abilities of children in an entering class because the average age of the students simply increases; the age span in a class remains unchanged.

Increasing the age of entry encourages schools to make kindergarten curricula more demanding because some children who once would have been first grade age are now in kindergarten instead. Downward displacement of academic content and expectations to earlier and earlier grades, partly a result of school reform and efforts to hold schools accountable for measurable outcomes, means that some children who might at one time have been able to take kindergarten in stride may no longer be able to keep up. Therefore, in an effort to keep up with societal demands for rising standards of educational achievement in the later grades, schools may raise the age of entry to increase the likelihood that kindergartners will succeed in the more demanding environment.

Despite these and other problems that arise in attempting to define and apply concepts of school readiness, parents, teachers, and school administrators frequently make critical decisions for individual children based on their own notions of this concept. The next section examines what can be learned from national surveys about parent and teacher perceptions of the components of school readiness and the status of America’s children.
Surveys
As discussed above, one result of the recent increase in public attention to readiness is an illumination of the problems with the available data on school readiness and the lack of tools for measuring it. At present, direct measurement of kindergarten readiness is nearly impossible because of the lack of agreed-upon definitions and standards and of data about children’s capacities as they enter school.

Because of concern about the readiness status of children in the United States, several surveys have attempted to address the readiness question despite the lack of good measurement criteria. To circumvent this problem, they did not attempt to directly measure the proportion of children who were ready for school but instead asked parents and teachers their opinions about children’s readiness and the characteristics that are necessary for a child to be ready for school. Kindergarten teachers and parents are key figures in decisions about school readiness, often making the final determination of whether or not a child will enter kindergarten in a given year. Therefore, it is helpful to know what they consider to be the key aspects of being ready and the proportion of children they believe are ready for school.

This article discusses three national surveys in which teacher and parent opinions about readiness are elicited. The first is the school readiness component of the 1993 National Household Education Survey (NHES), sponsored by the National Center for Education Statistics. In the spring of 1993, the NHES surveyed the parents of 2,126 kindergartners (as well as parents of 8,762 other children) in the United States about their child’s educational experiences. Parents responded to a series of questions concerning their opinions about the generic importance of several characteristics in determining whether any child was ready for school. Parents also reported what their child’s teacher had told them about their child’s performance in school in several areas such as sleepiness, spoken communication, enthusiasm, restlessness, and taking turns, and answered several questions about their child’s educational experiences (such as being held out or retained).

The second survey, also sponsored by the National Center for Education Statistics, was designed to learn specifically about the beliefs and judgments held by kindergarten teachers concerning school readiness. The Kindergarten Teacher Survey on Student Readiness (KTSSR) surveyed 1,339 public school kindergarten teachers primarily by mail in the spring of 1993. This survey asked questions similar to those asked as a part of the NHES about the importance of certain attributes and attitudes to any child’s readiness for kindergarten, as well as other characteristics of the teacher’s classroom and experiences. The KTSSR did not, however, ask the teachers what proportion of their students were ready for school, data which might have provided a helpful indicator of teacher’s perceptions of the general level of readiness among children. The most recent survey asking that question was the National Survey of Kindergarten Teachers (NSKT) sponsored by the Carnegie Foundation for the Advancement of Teaching. Conducted in the fall of 1991 as a supplement to the Foundation’s report on school readiness, the NSKT recorded the opinions of kindergarten teachers about the readiness of the children in their classes who entered school in the fall of 1990. Surveys were mailed to more than 20,000 kindergarten teachers, and approximately 7,000 responded, for a response rate of about 35%. Because this response rate is low, the representativeness of the sample is difficult to determine. The results should be interpreted with caution. Two NSKT questions are of particular interest for this discussion: “What percentage of your students are not ready to participate successfully in school?” and “How
does the readiness of your students compare to five years ago?”

Parent and Teacher Conceptions of Readiness

Figure 1 illustrates the views of parents and teachers about the characteristics a child needs to be ready for school, using data from the 1993 NHES and KTSSR.18 From the KTSSR, we learn that teachers believe that being physically healthy, rested, and well nourished is the most important part of readiness for school; nearly 75% said that it was “essential,” and no teacher rated health below “somewhat important.”19 The next few bars in Figure 1 represent other nonacademic characteristics, including communication skills, enthusiasm, and taking turns, which both a majority of teachers and parents felt were essential or very important for kindergarten readiness.

While parents and teachers are in basic agreement about the order of importance of the different characteristics of school readiness, parents were more likely than teachers to judge basic academic skills as important. For example, while nearly 60% of parents felt that knowing the alphabet before entering kindergarten was “essential” or “very important,” only 10% of teachers agreed.

Are Children Ready?

In this section, several data sources are used to examine the proportion of children that parents and teachers feel are ready. The Carnegie NSKT asked kindergarten teachers directly about their perceptions of the readiness of their students. The teachers indicated that, in the fall of 1990, approximately 65% of their students were ready for school.20 While this seems to be a straightforward measure of teacher perceptions of readiness, the survey’s low response rate (35%) and lack of a clearly stated definition of school readiness suggest that it may be helpful to look to other sources for estimates of the proportion of kindergartners who are ready for school.

Using what is known about what teachers believe to be important, along with parental reports of teacher assessments, one can roughly assess teachers’ views of the readiness status of the kindergartners represented in the NHES. First, consider how kindergartners were rated on each of the five characteristics (health, communication, enthusiasm, taking turns, and restlessness) on which data are available and which teachers most frequently identified as essential or very important for kindergarten readiness.21 The five bars of Figure 2 represent answers to the NHES survey questions that match most closely the top readiness characteristics according to teachers who responded to the KTSSR. While data from the NHES do not match the KTSSR questions exactly, the NHES provides a sense of the proportion of kindergarten children who have problems in school with each characteristic.

Figure 3 shows the proportion of students whose parents reported positive assessments from their children’s teachers on five, four, three, or fewer than three of the five characteristics of readiness presented in Figure 2. Readiness is a multidimensional concept, and these data do not include all the attributes of readiness that a majority of the teachers identified as important in the KTSSR. Nonetheless, it is noteworthy that 63% of children were reported as having received positive assessments on all five characteristics. The proportion is comparable to the proportion of students reported as ready to participate successfully in school in the Carnegie NSKT. The remaining 37% of kindergartners who did not receive positive assessments on all five were presumably on average less ready than those students with five positive assessments, but without more information, it is not possible to determine the proportion of children in this group who were not ready to participate successfully in school.

Another very crude measure of school readiness is actual student experiences related to kindergarten. Some children are held out of school when they are old enough to be eligible to enroll, usually by
Parents and teachers are arguably the most important forces in a child's early school experiences. This graph, which uses parent responses from the 1993 National Household Education Survey (NHES) and teacher responses from the 1993 Kindergarten Teacher Survey on Student Readiness (KTSSR), presents the characteristics that parents and teachers believe are important for being ready to begin kindergarten. For some characteristics, such as physical health and following directions, data is available only for teacher responses from the KTSSR because no parallel question was asked of parents in the NHES.

- Teachers were more likely to rate good health as essential or very important than any other characteristic.
- Parents and teachers agree that both the ability to communicate needs, wants, and thoughts verbally in a child's primary language and the qualities of being enthusiastic and curious in approaching new activities are very important aspects of school readiness.
- Substantially more parents than teachers believe that the more academic items, such as counting to 20 or knowing the letters of the alphabet, are important for school readiness.

their parents or teachers. The 1993 NHES shows that between 8% and 9% of children eligible for kindergarten by chronological age wait to enroll until the following year. Studies of small areas have found that many schools have substantial numbers of over-age kindergartners, particularly among boys. Parents and teachers may feel that children who are born close to the enrollment cutoff date or who have other perceived or real disadvantages would be better served by waiting a year and being among the older students in their class. Although it has been shown that older students are inclined to do better than younger ones in kindergarten, these differences tend to disappear by the third grade. A large problem with holding out is that it doubles the age span represented in the kindergarten class from 12 to 24 months. As a result, students who are of typical kindergarten age may be at a disadvantage throughout their academic careers if they continue to be grouped with classmates who are more than a year older than they. In addition, children who are held out may experience problems if they feel “too old” for their classmates as they mature. The increased age span also presents problems for teachers, who must now teach groups of children who are more diverse in age and experience than before. In any event, the parent or teacher making the decision to hold a child out feels that, for some reason, the child is not as ready at the time as he or she will be in a year.

Some kindergarten students are retained in grade, repeating their kindergarten
The figure on top shows the proportion of students whose parents reported positive assessments from their children’s teachers on five, four, three, or fewer than three of the five characteristics of readiness presented in Figure 2. The parent reports of teacher assessments of their children come from the 1993 National Household Education Survey (NHES). These characteristics, shown in Figure 2, are the ones that teachers frequently reported as at least “very important” for readiness in the Kindergarten Teacher Survey on Student Readiness (KTSSR). The figure on the bottom illustrates teacher responses to a question on school readiness from the 1991 Carnegie National Survey of Kindergarten Teachers (NSKT).

- Sixty-three percent of students received positive teacher ratings on all five readiness characteristics in the NHES. The Carnegie NSKT found that, according to teachers, about 65% of kindergarten students were ready to participate successfully in school.
- Almost 90% of children received positive ratings on at least four of the five characteristics reported in the NHES.

year. Students who are retained in kindergarten are, by some measure, not considered to be ready enough to go on to the next grade. According to the 1993 NHES, approximately 6% of kindergartners attend two or more years of kindergarten. Other studies have found that even higher proportions of students are retained in the first grade—between 5% and 14% in individual states. While retention does indicate that a child at the conclusion of one grade was not felt to be prepared for the next grade, it may not by itself be a good indicator of the readiness of children. Retention might also be an indicator of the ability of a school to deal with the needs of a particular child.

The goal for the year 2000 is that all children start school ready to learn. According to the data from the surveys considered in this article, as many as one-third of kindergartners may not have been ready in the early 1990s. Therefore, it is helpful to consider the direction of any trend in readiness to assess progress toward the national goal. There are no trend data available on readiness per se, but the recollections of kindergarten teachers are suggestive. In the Carnegie NSKT, kindergarten teachers responded to the question, “How does the readiness of your students today compare to five years ago?” The basis for the teachers’ answers was left to the teachers themselves: they were to compare their students today with their recollections of their students five years ago on whatever characteristics they considered to be important. Some 25% of teachers felt that today’s kindergarten students were more ready than those of five years ago, while 42% felt that fewer students were ready now than before. The trend, based on this single survey question, is not encouraging. However, teacher perceptions and expectations may change over time, and the relationship between teacher reports and actual readiness is unknown.

National Benchmarks for Readiness

America 2000, the education strategy that placed readiness at the top of the agenda, includes a plan for measuring the nation’s success in achieving the goal that all children in America will start school ready to learn by the year 2000. Under the plan, success in reaching this goal will not be measured directly because direct measurement would involve collection of data about individual children which is not routinely collected and for which no commonly accepted measures exist. Instead, success will be determined by progress toward three major subgoals, or objectives, which focus on the broader themes of access to services for which ongoing data are more routinely available:

Objective 1: All children will have access to high-quality and developmentally appropriate preschool programs that help prepare children for school.

Objective 2: Every parent in the United States will be a child’s first teacher and devote time each day to helping such parent’s preschool child learn, and parents will have access to the training and support parents need.

Objective 3: Children will receive the nutrition, physical activity experiences, and health care needed to arrive at school with healthy minds and bodies, and to maintain the mental alertness necessary to be prepared to learn, and the number of low birth weight babies will be significantly reduced through enhanced prenatal health systems.

These objectives make intuitive sense. For example, with rare exceptions, increasing parent involvement in a child’s life should improve the child’s confidence and readiness for school, and teachers report that good health and nutrition are essential to readiness (see Figure 1).

There is more than one effort to try to determine the nation’s progress toward the three objectives. The National Education Goals Panel, which was established
as an independent federal agency in 1994, has chosen four indicators to measure progress toward the objectives: a children’s health index (the percentage of infants born with two or more health or developmental risks), immunization rates, family-child reading and storytelling, and participation in preschool. These four indicators do not directly measure progress toward all parts of the objectives, but rather focus on the more measurable portions. The indicators are tracked each year in a series of reports published by the Panel. The reports also track where the nation should be on each indicator each year to reach the objectives by the year 2000. Members of the National Governor’s Association (NGA) have also proposed a more extensive group of indicators (or “benchmarks”) of progress toward each of the three objectives based on available and potentially available data sets. For example, one benchmark they propose for the first objective is the percentage of eligible children enrolled in Head Start and public preschool programs. In general, the benchmarks relate to specific outcomes which together cover various aspects of the health, welfare, and service utilization of young children. However, unlike the National Education Goals Panel indicators reports, the NGA does not prescribe specific goal levels for the individual benchmarks. The lack of specified goal levels would make it difficult to know whether the nation has achieved its readiness goals using these criteria.

Conclusion

Two closely related questions lie at the heart of the uncertainty surrounding the measurement of school readiness and the readiness goal for education in America: How will measurement of readiness be used? Who is responsible for ensuring that children are ready?

Frequently, the measurement of readiness in school settings has involved the testing or screening of kindergarten-age children to determine whether they meet the entry standards of the school. This use of readiness measurement places responsibility on parents and children to meet a standard set by the school. The relatively recent phenomenon of holding out is another example of parents themselves taking the responsibility for determining the proper time for school entry based on some concept of readiness. Even the wording of the national goal suggests that it is the child who should be ready for learning and for school, not the school that should be ready for the child.

An alternate perspective, however, is that readiness be considered a quality of the schools, rather than of the children. Under such a scenario, entry standards could be based solely on age so that all children, regardless of their language, income, or gender, would start school at a specific time, and school services would be individualized to meet each child’s needs. Measurement of progress in readiness would then focus on school characteristics, such as the number of kindergarten-age children in kindergarten or the availability of varied levels and forms of instruction. However, shifting the onus for readiness from the child to the school may frequently require difficult institutional changes (such as increased individualization of curricula and classrooms for students at different levels), and changing to this concept of readiness will take time.

The objectives for the national readiness goal place a large measure of responsibility on society at large. They widen the definition of readiness to include many aspects of child health and well-being, while placing little responsibility on the schools for accommodating children. A limitation of this approach is that it may give insufficient attention to traditional concepts of readiness as perceived and acted upon by parents and teachers. It does not directly acknowledge the roles that parents and schools can play in facilitating readiness. In addition, diffusion of accountability to the level of society at large may result in dissipation of desire, focus, and effort and render the goal more difficult to achieve.
Reaching a consensus on where responsibility lies or how responsibility should be shared among families, schools, and society at large should be a critical first step in developing better indicators of school readiness. Shared responsibility may imply that more than one single measure of readiness will be appropriate. Progress toward the goal that all children start school ready to learn will likely require that more attention and resources be directed toward the determination of what it is that the nation means by school readiness.

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18. The 11 characteristics shown in Figure 1 do not include all of the characteristics asked about in the KTSSR. The survey also asked teachers the importance of these characteristics: finishes tasks, has good problem-solving skills, knows the English language, and identifies primary colors and basic shapes. (See note no. 16, Fast Response Survey System.)


20. While the survey asked teachers to refer to their class in the fall of 1990, it is not clear that the teachers used this group as their reference. (Personal communication with Sharon Lynn Kagan, senior associate, Bush Center in Child Development and Social Policy, Yale University, April 19, 1995.)

21. However, as previously noted, in the KTSSR there were other attributes that teachers more frequently considered to be “very important” or “essential” for readiness than taking turns, including not being disruptive, being sensitive to other children’s feelings, and following directions. Because we want to examine child-level readiness characteristics found in the NHES, the information presented here is for only those characteristics for which there is information from both the NHES and the KTSSR.


25. See note no. 1, Action Team on School Readiness, p. 6.