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Statistics in Brief

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Readiness for Kindergarten: Parent and Teacher Beliefs

Today, nearly all children attend a public or private kindergarten before first grade (West et al., 1991). As kindergarten enrollments have grown, so too has the range of backgrounds and experience that children bring to these programs. Kindergarten programs have also changed and often stress academic skills that were previously reserved for older children (Freeman and Hatch, 1989; Hitz and Wright, 1988; Karweit, 1988; Shepard and Smith, 1988). On the other hand, a leading professional association in early childhood education — the National Association for the Education of Young Children (NAEYC) — has adopted the position that kindergartens should have programs and practices that are more age appropriate and that better accommodate individual differences in background, learning, and experience (Bredekamp, 1987). This view seems to have gained wide acceptance among early childhood educators (Hitz and Wright, 1988).

As kindergarten has grown in popularity and as the nature of these programs changes, there has been discussion about the attributes and attitudes children need at entry to reach their full potential. Opinions about what young children should know or be capable of doing to be ready for kindergarten vary widely.¹ This paper looks at the beliefs held by two groups who play critical roles in the early education of children — parents of preschoolers and kindergarten teachers.

Parents hold a range of beliefs about what attributes and attitudes their children will need to succeed in kindergarten. Parent beliefs influence the activities they engage in with their children and the programs and experiences they arrange for the children (Graue, 1992). Parents may evaluate their child's readiness to start kindergarten on the basis of these beliefs and rely on these beliefs to decide when to enroll their child in kindergarten.

Kindergarten teachers, who are responsible for guiding the school-related development of children once they enter school, also hold beliefs about the attributes and attitudes children will need in kindergarten. A teacher's beliefs can influence his or her early evaluations of a child's abilities and expectations for the child's chances of succeeding in the program. These early evaluations may be used in determining the child's placement and in making decisions about his or her promotion (Shepard and Smith, 1986).

The extent to which parents of preschoolers and kindergarten teachers share a common understanding of the attributes and attitudes children need as they enter school is important. If parents and teachers hold similar beliefs, then there is a greater opportunity for congruence between the skills parents encourage in their children prior to school entry and the skills teachers look for as children enter kindergarten. Such congruence may contribute to a teacher's positive evaluation of the child early in his or her school life and to the child having a successful early school experience.

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National Data on Parents and Teachers

Two surveys sponsored by the U.S. Department of Education's National Center for Education Statistics and conducted in the spring of 1993 collected information on parent and teacher beliefs about characteristics important to a child's readiness for kindergarten. The 1993 National Household Education Survey (NHES:93) asked the parents of preschoolers² to rate several attributes and attitudes in terms of how important they were for any child to be ready for kindergarten.³ The Fast Response Survey System (FRSS) Kindergarten Teacher Survey on Student Readiness asked public school kindergarten teachers similar questions.⁴

The questionnaire items that were common to the two surveys represent a small set of the attributes that have traditionally been viewed as related to children's readiness for school. These questionnaire items were clustered into two groups—behavioral items and school-related items. The specific behavioral items were:

- Communicates needs, wants, and thoughts verbally;
- Takes turns and shares;
- Is enthusiastic and curious in approaching new activities; and
- Sits still and pays attention.

School-related items were:

- Is able to use pencils and paint brushes;
- Can count to 20 or more; and
- Knows the letters of the alphabet.

This report compares the beliefs expressed by parents of preschoolers and by public school kindergarten teachers about the importance of these two sets of items. The reported beliefs held by parents with different levels of educational attainment are also compared.

Parent and Teacher Beliefs

Parents of preschoolers and kindergarten teachers were asked to rate each of these characteristics in terms of how important it is for a child to know or do each in order to be ready for kindergarten.⁵ Both were asked whether each characteristic is not at all important, not very important, somewhat important, very important, or essential for any child to be ready for kindergarten.

Parents of preschoolers and the kindergarten teachers are similar in their beliefs about the importance of some characteristics and dissimilar in their beliefs about others.⁶ Parents and kindergarten teachers shared similar opinions on the importance of some characteristics. Parents and teachers agreed that it is very important or essential for the child to communicate his or her needs, wants, and thoughts verbally, and that the child be enthusiastic and curious in approaching new activities (see table 1).

While large percentages of both groups also believed it is very important or essential that a child be able to take turns and share, and to sit still and pay attention, there was a far greater disparity in the responses between parents and teachers for these characteristics. In fact, less than half (42 percent) of the kindergarten teachers believed that sitting still and paying attention are very important or essential, while 80 percent of the parents believed these are important characteristics for children to have as they entered kindergarten.

Parents of a majority of preschoolers believe that knowing the letters of the alphabet, being able to count to 20 or more, and using pencils and paint brushes are very important or essential for a child to be ready for kindergarten, while few kindergarten teachers share these beliefs.

The greatest disparity between parent and teacher beliefs centered on the importance of children being able to count to 20 or more, knowing the letters of the alphabet, and using pencils or paint brushes. The percentages of parents who rated counting and knowing the alphabet as very important or essential were about six to eight times greater than those of teachers. Parents were three times more likely than teachers to rate the ability to use pencils and paint brushes as very important or essential for kindergarten readiness.

Table 2 presents the percentage of parents and teachers who rated *all* of the behavioral items and *all* of the school-related skill items as very important or essential. Examining parent and teacher beliefs in this way helps to focus on the intensity of their beliefs about these attributes.

Parents are far more likely than teachers to rate all of the behavioral items as very important or essential. Parents rated the school-related skill items similarly.

Nearly two-thirds of preschoolers' parents rated all four of the behavioral items as very important or essential for a child entering kindergarten as compared with less than one-third of public school kindergarten teachers. Differences between parents and teachers are also large for the school-related skill items. A higher percentage Table 1.— Percentage of preschoolers' parents and public school kindergarten teachers who rate selected child characteristics as "essential" or "very important" to being ready to start kindergarten: 1993

	Preschoo	lers' parents	Kindergarten teachers		
Child characteristic	Estimate	Standard error	Estimate	Standard error	
Estimated number (thousands)	8,441	44	119	19	
Communicates needs, wants, and thoughts verbally	92%	0.5%	84%	1.1%	
Takes turns and shares	92	0.5	56	1.4	
Is enthusiastic and curious in approaching new activities	84	0.7	76	1.7	
Sits still and pays attention	80	0.9	42	1.1	
is able to use pencils or paint brushes	65	1.0	21	1.3	
Can count to 20 or more	59	0.9	7	0.8	
Knows the letters of the alphabet	58	0.8	10	0.8	

NOTE: The unit of analysis in the NHES:93 is the child. The base for the percentages is the number of preschoolers, not the number of parents. The FRSS is based on an independent sample of public school kindergarten teachers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, FRSS Kindergarten Teacher Survey of Student Readiness and National Household Education Survey (parents), spring 1993.

of parents of preschoolers (41 percent) rated all three of these items as very important or essential, compared with only 4 percent of the teachers.

Parent Education and Parent Beliefs

The relative importance that parents as a whole attributed to some characteristics versus others for a child's kindergarten readiness holds for parents with different levels of education.

Research has found that parents' educational attainment levels influence the types of activities and programs in which children participate (West et al., 1992, 1993). Parents with less than a high school education, high school educated parents, and college educated parents alike were more likely to rate behaviors that pertain to children's social and emotional behaviors (taking turns, sharing, sitting still and being attentive), their verbal skills, and their curiosity and enthusiasm for learning as very important or essential than they were school-related skills (see table 3).⁷ With the lone exception of college completers, a majority of parents continue to rate a child's school-related skills as very important or essential for kindergarten entry.

There are large differences in the percentages of parents with higher and lower levels of education who believe that specific school-related skills and behaviors are very important or essential to a child's readiness for kindergarten.

Parents with less formal education are more likely than parents with higher levels of education to rate sitting still and paying attention, counting, knowing the alphabet, and using pencils or paint brushes as very important or essential for a child about to enter kindergarten. The majority of parents at each education level rated a child's ability to share and take turns, communicate his/her needs, wants, and thoughts verbally, and approach new activities with enthusiasm and curiosity as very important or essential. Furthermore, parents at each level of education continue to give more weight to these skills and behaviors than kindergarten teachers.

In addition to the relationship of each individual measure to parent education, the chances that parents rate *all* of the characteristics as very important or essential is associated with their level of education (see table 4). The percentages of parents who rated all three of the school-related skill items as very important or essential declined steadily from a high of 55 percent of parents with less than a high school education to a low of 29 percent of parents with at least a bachelor's degree. A similar pattern is found for the behavioral items, with 77 percent of parents with less than a high school

education rating all four behaviors as very important or essential compared with 54 percent of college completers.

Discussion

The patterns in parent and teacher beliefs that were identified by comparing the responses from the NHES:93 and FRSS Kindergarten Teacher Survey are consistent with earlier research that has examined the emphasis parents and teachers place on different skills and attributes and their attitudes and opinions about kindergarten. Earlier research has found that parents place a greater emphasis on the child's social and emotional maturity than on school-related academic skills when deciding whether the child is ready for kindergarten (Eisenhart and Graue, 1990). However, compared with teachers, parents place greater importance on academic skills (e.g., counting, writing, and reading) and prefer classroom practices that are more academically oriented (Knudsen-Lindauer and Harris, 1989). One reason for this may be that parents perceive that there are specific activities they can do to teach their children school-related basic skills, whereas ways of changing the social maturity or temperamental characteristics of their children are less apparent.

The analyses reported here suggest that parental beliefs about what attributes and behaviors their children will need to succeed in kindergarten are influenced by their educational attainment. One possible explanation for this is that parents with higher education levels are more apt to have been exposed to a perspective on early childhood education that reflects the position that kindergarten programs and practices should be age appropriate and accommodate individual differences in background, learning, and experience, either in their formal schooling or through outside reading. Similar findings were reported by Harris and Knudsen-Lindauer (1988) in their study on parental and teacher priorities for kindergarten preparation. These authors found that parents in the lower socioeconomic groups were more likely to place a greater value upon the observable and concrete skills of self-sufficiency and independence than upon the more abstract development in the emotional and receptive language domains. They surmise that this may be due to the less formal education and limited access to educational material within lower SES groups.

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While it is reasonable to believe that some of the disparity between parent and teacher responses in the NHES:93 and FRSS Kindergarten Teacher Survey on Student Readiness may be related to mode of administration (telephone versus mail) or other methodological factors or respondent characteristics,

Table 2.— Percentage of preschoolers' parents and public school kindergarten teachers who rate all behavioral characteristics or all basic skills as "essential" or "very important" to being ready to start kindergarten: 1993

	Preschoo	lers' parents	Kindergarten teachers		
Child characteristic	Estimate	Standard error	Estimate	Standard error	
Estimated number (thousands)	8,441	44	119	19	
All 4 behavioral characteristics	65%	1.0%	29%	1.1%	
All 3 school-related skills	41	0.9	4	0.6	

NOTE: The unit of analysis in the NHES:93 is the child. The base for the percentages is the number of preschoolers, not the number of parents. The FRSS is based on an independent sample of public school kindergarten teachers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, FRSS Kindergarten Teacher Survey on Student Readiness and National Household Education Survey (parents), spring 1993.

Table 3.— Percentage of preschoolers whose parents rate selected child characteristics as "essential" or "very important" to being ready to start kindergarten by parent education level: 1993

	Less than high school		High school/ high school equivalent		Vocational/ technical or some college		College graduate or graduate/ professional	
Child characteristic	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
Estimated number (thousands)	1,026	50	3,191	74	2,644	63	1,579	55
Communicates needs, wants, and thoughts verbally	96%	1.0%	94%	0.7%	91%	0.9%	88%	1.3%
Takes turns and shares	92	1.5	94	0.7	92	0.7	85	1.3
ls enthusiastic and curious in approaching new activities	86	2.3	86	1.0	82	1.4	81	1.3
Sits still and pays attention	95	1.2	84	1.1	76	1.4	69	1.8
Is able to use pencils or paint brushes	78	2.5	68	1.7	64	1.7	54	1.5
Can count to 20 or more	70	2.6	62	1.6	57	1.5	50	1.8
Knows the letters of the alphabet	73	2.9	63	1.4	55	1.4	41	1.7

NOTE: The unit of analysis in the NHES:93 is the child. The base for the percentages is the number of preschoolers, not the number of parents. Because of rounding, details may not sum to the totals in tables 1 and 2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, spring 1993.

Table 4.— Percentage of preschoolers whose parents rate all behavioral characteristics or all basic skills as "essential" or "very important" to being ready to start kindergarten by parent education: 1993

	Less than high school		High school/ high school equivalent		Vocational/ technical or some college		College graduate or graduate/ professional	
Child characteristic	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
Estimated number (thousands)	1,026	50	3,191	74	2,644	63	1,579	55
All 4 behavioral characteristics	77%	2.5%	70%	1.3%	61%	- 1.5%	54%	1.9%
All 3 school-related skills	55	2.9	44	1.4	38	1.6	29	1.6

NOTE: The unit of analysis in the NHES:93 is the child. The base for the percentages is the number of preschoolers, not the number of parents. Because of rounding, details may not sum to the totals in tables 1 and 2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Household Education Survey, spring 1993.

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the magnitude of the differences on some measures suggest that there are real differences between parent and teacher beliefs. Knudsen-Lindauer and Harris (1989) have suggested that the disparity between parent and teacher beliefs illustrates the need for greater parent and teacher dialogue as well as parent education programs to assist parents and teachers in defining similar goals. They go on to state that continuity and clarity of goals are imperative to children's successful transition into kindergarten, the higher the degree of similarity that parents and teachers achieve in their goals and expectations, the stronger the effect these expectations will have on children's performance.

While it is assumed that personal beliefs affect behaviors, correspondence between verbally expressed beliefs and actual behaviors has always been one of the classic and most troublesome research issues (Kochanska et al., 1989). What parents and teachers say is important may differ from what is practiced in the home or the classroom (Amos-Hatch and Freeman, 1988; Spidell-Rusher et al., 1992). If we are to understand more fully how beliefs about children's readiness influence practices, researchers need to examine the relationship between beliefs and actions.

Survey Methodology and Data Reliability

This report presents data from two surveys sponsored by the National Center for Education Statistics. These are the 1993 National Household Education Survey (NHES:93) and the Fast Response Survey System (FRSS) Survey of Kindergarten Teachers on Student Readiness.

1993 National Household Education Survey

The NHES:93 is a random-digit-dial (RDD) telephone survey conducted for the U.S. Department of Education's National Center for Education Statistics (NCES) by Westat, Incorporated. The survey was conducted with a sample drawn from the civilian, noninstitutionalized population in households with telephones in the 50 states and the District of Columbia. Data collection took place from January through April of 1993, using computer assisted telephone interviewing (CATI) technology.

The School Readiness component of the NHES:93 sampled 3- to 7-year-olds and 8- and 9-year-olds enrolled in second grade or below. Two interviews were used to collect information on children's preparation for school. A Screener interview was conducted with an adult member of the household, and was used 1) to determine whether any children of the appropriate ages lived in the household, 2) to collect information on each household member, and 3) to identify the appropriate parent/guardian to respond for the sampled child. If one or two eligible children resided in the household, interviews were conducted about each child. If more than two eligible children resided in the household, two children were randomly sampled as interview subjects. An extended School Readiness (SR) interview was conducted with the parent/guardian most knowledgeable about the care and education of each sampled child. This interview was used to collect more detailed information on children and their families.

Screener interviews were completed with 63,844 households, of which 9,936 contained at least one child eligible for the SR interview. A sample of 12,905 children was selected for the SR interview from these households. The response rate for the Screener was 82 percent. The completion rate for the SR interview, or the percentage of eligible sampled children for whom interviews were completed, was 90 percent, or 10,888 interviews. Thus, the overall response rate for the SR interview was 74 percent (the product of the Screener response rate and the SR completion rate). This report is based on a subset of the total SR sample: preschoolers (that is, children age 3 to 5 years not yet enrolled in kindergarten) whose parents plan for them to attend kindergarten. The unweighted number of cases included in this analysis is 4,344.

Item nonresponse (the failure to complete some items in an otherwise completed interview) was less than 2 percent for the variables used in this report. Responses that were missing were imputed using a hot-deck procedure.

FRSS Kindergarten Teacher Survey on Student Readiness

The FRSS Kindergarten Teacher Survey on Student Readiness was also conducted in the spring of 1993. A sample of 860 public schools was selected from the 1990–91 list of public schools, compiled by NCES, which is part of the Common Core of Data (CCD). Regular public schools with kindergartens in the 50 states and the District of Columbia were eligible for selection; special education and alternative schools were excluded prior to sampling. Of the initial sample of 860 schools, 17 were found to be ineligible, resulting in a final sample of 843 schools. Lists of kindergarten teachers were collected from these schools, and a sample of kindergarten teachers was selected. Survey questionnaires were mailed to the teachers, and nonresponse followup was conducted by telephone. Of the 843 schools found to be eligible, 825 provided complete lists of kindergarten teachers, a 98 percent completion rate. Of the 1,448 teachers, 32 were found to be out of scope (e.g., no longer at the school or otherwise ineligible), resulting in a final sample of 1,416. The teacher-level completion rate was 95 percent. The overall study response rate for the teachers (the product of the school- and teacher-level completion rates) was 92 percent. Item nonresponse was also very low in the FRSS Kindergarten Teacher Survey on Student Readiness, ranging from 0.0 percent to 0.9 percent. Item nonresponse was treated as missing data when preparing estimates for this report. This is equivalent to assuming equal distributions for both respondents and nonrespondents.

Data Reliability

Estimates produced using data from these surveys are subject to two types of error, sampling and nonsampling errors. Nonsampling errors are errors made in the collection and processing of data. Sampling errors occur because the data are collected from a sample rather than a census of the population.

Nonsampling Errors

Nonsampling error is the term used to describe variations in the estimates that may be caused by population coverage limitations and data collection, processing, and reporting procedures. The sources of nonsampling errors are typically problems like unit and item nonresponse, the differences in respondents' interpretations of the meaning of the questions, response differences related to the particular time the survey was conducted, and mistakes in data preparation.

In general, it is difficult to identify and estimate either the amount of nonsampling error or the bias caused by this error. In the NHES:93, efforts were made to prevent such errors from occurring, and to compensate for them where possible. These efforts included the use of focus groups and cognitive laboratory interviews in the survey design, extensive testing of the CATI system, and a pretest in which over 275 interviews were conducted. In the FRSS Kindergarten Teacher Survey, quality control efforts included pretesting and post-data collection editing.

An important nonsampling error for a telephone survey is the failure to include persons who do not live in households with telephones. About 90 percent of all 3to 7-year-olds live in households with telephones. Estimation procedures were used to help reduce the bias in the estimates associated with children who do not live in telephone households.⁸

Sampling Errors

The sample of telephone households selected for the NHES:93 is just one of many possible samples that could have been selected. Similarly, the sample of teachers selected for the FRSS Kindergarten Teacher Survey is only one of many possible teacher samples. Therefore, estimates produced from these samples may differ from estimates that would have been produced from other samples. This-type of variability is called sampling error because it arises from using a sample of households with telephones, rather than all households with telephones.

The standard error is a measure of the variability due to sampling when estimating a statistic. Standard errors for estimates presented in this report were computed using a jackknife replication method. Standard errors can be used as a measure of the precision expected from a particular sample. The probability that a complete census count would differ from the sample estimate by less than 1 standard error is about 68 percent. The chance that the difference would be less than 1.65 standard errors is about 90 percent; and that the difference would be less than 1.96 standard errors, about 95 percent.

Standard errors for all of the estimates are presented in the tables. These standard errors can be used to produce confidence intervals. For example, an estimated 56 percent of kindergarten teachers rated taking turns and sharing as very important or essential. This figure has an estimated standard error of 1.4. Therefore, the estimated 95 percent confidence interval for this statistic is approximately 53 to 59 percent.

The significance of differences between the overall percentage of parents rating skills and abilities as very important or essential and the percentage of teachers rating these same skills and abilities as very important or essential were tested using Student's *t* statistic. A Bonferroni adjustment procedure was used to correct the significance tests for multiple comparisons.

A Chi-square test of independence was used to test differences in parent beliefs by parent education. The Chi-square statistics were adjusted for the design effects of the cells of the contingency tables.

All the differences cited in this report are significant at the 0.05 level of significance.

Endnotes

¹The National Education Goals Panel's Goal One Technical Subgroup is working to achieve consensus on a definition and model of readiness.

²Preschoolers are children 3 to 5 years old who are not yet enrolled in kindergarten.

³In the NHES:93, items concerning beliefs about kindergarten readiness were asked of the parents of preschoolers who intended for their children to attend kindergarten. If a parent indicated that he or she did not intend for the child to attend kindergarten, the items concerning beliefs about kindergarten readiness were not asked. About 99 percent of preschool children's parents planned on enrolling them in kindergarten.

⁴The FRSS sampled only public school kindergarten teachers. The NHES:93 collected information from parents who expect their preschoolers to attend private kindergartens and public kindergartens. About 13 percent of kindergartners attend private programs and 87 percent attend public programs.

⁵An examination of the percentages of 3-, 4-, and 5-year-old preschool children whose parents indicated that each characteristic is very important or essential showed no substantial or consistent differences by age. Therefore, the responses of the parents of these children are analyzed in this report as a group.

⁶The unit of analysis in the NHES:93 School Readiness interview is the child and not the parent. Thus, when parent-reported data are presented in this report, they are referenced to the children (e.g., "The percentage of preschoolers whose parents . . ."). For ease of presentation, the text refers to the percent of parents.

⁷Parent's education was determined as follows: if the respondent was the child's mother, the mother's education was used; if the respondent was the father, the father's education was used. If the respondent was a nonparent guardian in the absence of the parent, his or her education was used. Finally, if the respondent was someone other than the parent or guardian in a household where there was a parent or guardian present (n=56), the highest in household parent education level was used.

⁸For additional information on telephone coverage issues and estimation procedures to correct for coverage biases, see J.M. Brick and J. Burke, *Telephone Coverage Bias of 14- to 21-year-olds and 3- to 5-year-olds*. U.S. Department of Education, National Center for Education Statistics, report number NCES 92-101.

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