ies NATIONAL CENTER FOR SPECIAL EDUCATION RESEARCH
Institute of Education Sciences

Preschoolers with Disabilities: Characteristics, Services, and Results

Wave 1 Overview Report from the Pre-Elementary Education Longitudinal Study (PEELS)

NCSER 2006-3003

U.S. DEPARTMENT OF EDUCATION

ies NATIONAL CENTER FOR SPECIAL EDUCATION RESEARCH
Institute of Education Sciences

Preschoolers with Disabilities: Characteristics, Services, and Results

Wave 1 Overview Report from the Pre-Elementary Education Longitudinal Study (PEELS)

Authors:
Joy Markowitz
Elaine Carlson
William Frey
Jarnee Riley
Amy Shimshak
Harriotte Heinzen
Jeff Strohl
Sheri Klein
Hyunshik Lee
Westat

Celia Rosenquist
Project Officer
Institute of Education Sciences

NCSER 2006-3003

U.S. DEPARTMENT OF EDUCATION

U.S. Department of Education

Margaret Spellings
Secretary

Institute of Education Sciences
Grover J. Whitehurst
Director

National Center for Special Education Research
Edward Kame'enui
Commissioner

The National Center for Special Education Research (NCSER) supports a comprehensive research program to promote the highest quality and rigor in research on special education and related services, and to address the full range of issues facing children with disabilities, parents of children with disabilities, school personnel, and others.

We strive to make our products available in a variety of formats and in language that is appropriate to a variety of audiences. You, as our customer, are the best judge of our success in communicating information effectively. If you have any comments or suggestions about this or any other NCSER product or report, we would like to hear from you. Please direct your comments to

National Center for Special Education Research
Institute of Education Sciences
U.S. Department of Education
555 New Jersey Ave., NW
Washington, DC 20208

The Pre-Elementary Education Longitudinal Study (PEELS) has been funded by the U.S. Department of Education, Institute of Education Sciences, under contract number ED-04-CO-0059. The content of this publication does not necessarily reflect the views or policies of the U.S. Department of Education nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. government.

This report was prepared for the Institute of Education Sciences under Contract No. ED-04-CO-0059. The project officer is Celia Rosenquist in the National Center for Special Education Research.

August 2006

The NCSER World Wide Web Home Page address is http://ncser.ed.gov
The NCSER World Wide Web Electronic Catalog is http://ncser.ed.gov/pubs
The Pre-Elementary Education Longitudinal Study website is http://www.peels.org

This publication is only available online. To download, view, and print the report as a PDF file, go to the NCSER World Wide Web Electronic Catalog address shown above.

Suggested Citation

Markowitz, J., Carlson, E., Frey, W., Riley, J., Shimshak, A., Heinzen, H., Strohl, J., Lee, H., and Klein, S. (2006). *Preschoolers' Characteristics, Services, and Results: Wave 1 Overview Report from the Pre-Elementary Education Longitudinal Study (PEELS)*. Rockville, MD: Westat. Available at www.peels.org.

Content Contact

Celia Rosenquist
(202) 219-2024
Celia.Rosenquist@ed.gov

Contents

Contents (continued)

List of Tables

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Tables (continued)

List of Figures

Executive Summary

The Pre-Elementary Education Longitudinal Study, commonly referred to as the PEELS study, is funded by the U.S. Department of Education's National Center for Special Education Research (NCSER). It will follow a nationally representative sample of children with disabilities ages 3–5 for a period of six years. This study is designed to describe the characteristics of children receiving preschool special education, their educational programs and services, and their transitions from preschool programs to elementary schools. The study will examine the achievement of students with disabilities in preschool, kindergarten, and elementary school and determine the factors associated with this achievement.

In its first year of data collection (2003–2004), information on 2,906 children with disabilities and their families was gathered through parent/guardian interviews, child assessments, and teacher and service provider questionnaires. In addition, information was collected through mail questionnaires from each child's preschool program director or school principal, local educational agency (LEA), and state educational agency (SEA). PEELS data collection will continue through 2009. PEELS data are weighted to generate national estimates; therefore, the results can be generalized to the entire U.S. population of children with disabilities ages 3–5.[1]

This overview report combines Wave 1 data from all of the PEELS instruments. It includes data on the following:

- Characteristics of children and their families;
- Characteristics of educational services and providers;
- Transitions from early intervention to preschool, and preschool to elementary school; and
- School-related readiness and behavior.

[1] A small supplemental sample of LEAs and children will be added to PEELS in Wave 2 to account for undercoverage in one region of the country. Wave 1 sampling weights will be adjusted at the conclusion of Wave 2 data collection.

Characteristics of Children and Their Families

- Preschoolers identified with disabilities were disproportionately male, 70 percent versus 30 percent female. Two-thirds (67%) were White, 22 percent Hispanic, and 11 percent Black.[2]
- More than one-quarter (27%) of children with disabilities ages 3–5 were from households with income levels of $20,000 or less, and more than one-third (34%) were from households with incomes of more than $50,000. Black children were significantly more likely to be from low-income households than higher income households.
- Twenty-one percent of fathers and 29 percent of mothers had some college education, while an additional 21 percent of mothers and fathers had a 4-year college degree or higher. Nineteen percent of fathers and mothers had less than a high school diploma or GED.
- Two-thirds of children with disabilities ages 3–5 (67%) lived with both biological parents. Another 5 percent lived with one biological parent and his/her spouse or partner, and 21 percent lived with one biological parent only. While 73 percent of White children lived with both biological parents, that was true for only 30 percent of Black children.
- For nearly one-third of preschoolers with disabilities (31%), concerns were raised about their health or development between the ages of 24 and 35 months. For 11 percent, concerns arose during pregnancy or within the first month after birth, and for 10 percent concerns arose in the first year.
- Twenty-four percent of preschoolers with disabilities were born three or more weeks prematurely**.** The mean birth weight for preschoolers with disabilities was 6.9 pounds. Children less than 5.5 pounds at birth are typically considered low birth weight. Of children born prematurely, Black children were born significantly earlier than White children, and Black children had significantly lower birth weights than Hispanic children and White children.

[2] Because of small sample sizes, data could not be analyzed by race for Asian, Native Hawaiian or other Pacific Islanders or for Native American or Alaska Natives. For reporting purposes, Hispanics of all races are included in the Hispanic group.

- Nearly half (46%) of preschoolers with disabilities were identified as having a speech or language impairment as their primary disability, and 28 percent were identified as having a developmental delay as their primary disability. Fewer than 10 percent of preschool children were identified as having other disabilities as primary. A significantly higher percentage of White children than Black or Hispanic children were identified as having a speech or language impairment as their primary disability.

Characteristics of Educational Services and Providers

- On average, preschoolers with disabilities were nearly 3 years old when they started receiving special education or therapy services from a professional. Children identified as having an orthopedic impairment, mental retardation, or an other health impairment typically began receiving services at significantly younger ages than children identified as having other disabilities.
- The vast majority of children with disabilities ages 3–5 who received special education services received speech or language therapy (93%). Other common services included special education in school (42%), occupational therapy (34%), physical therapy (21%), and tutoring for learning problems (19%). There were some significant variations across racial/ethnic groups, household income groups, and disability categories.
- To support social interactions between children with and without disabilities, 89 percent of children's teachers reported that they provided structured play and task situations that required such interactions. More than three-quarters (77%) of the teachers reported that they prompted and reinforced children with disabilities to initiate and maintain interactions with children without disabilities, and 76 percent of the teachers said they prompted and reinforced children without disabilities to initiate and maintain interactions with children with disabilities. A majority of parents (86%) thought their children spent the right amount of time with typically developing children.

- More than half (55%) of children with disabilities ages 3–5 had a teacher with a graduate degree; 38 percent had a teacher with a bachelor's degree. When teachers were asked to report up to four areas of licensure, the most common were special education (36%), early childhood special education (31%), and elementary/secondary education (31%). There were some significant differences across racial/ethnic groups, household income groups, and disability categories.

Transitions From Early Intervention to Preschool and Preschool to Elementary School

- Of the children with disabilities ages 3–5 who had an individualized family service plan (IFSP) before age 3, nearly one-third (31%) had a gap between the end of services received through the Individuals with Disabilities Education Act (IDEA), Part C and the beginning of preschool services. One-third of all parents believed it took them *some* or *a lot of effort* to find out where to get preschool special education services through the school system.
- More than 75 percent of children with disabilities ages 3–5 who moved from one program to another in the preceding year had teachers who said they encouraged parents or guardians to meet with staff before the children entered the new school, program, or classroom; had children and families visit the new school, program, or classroom; provided parents with written information; had new staff members participate in children's IEP development; or called the children's parents.
- The majority of children's teachers (57%) reported that children and their families had *extremely adequate* transition support. More than half (54%) of teachers of kindergarteners with disabilities reported the students had *very easy* transitions; however, 15 percent had *somewhat* or *very difficult* transitions.

School-Related Readiness and Behavior

- Overall, preschoolers with disabilities who participated in the direct assessment performed close to the population mean on the Woodcock-Johnson III: Letter-Word Identification. Children identified as having autism, a speech or language impairment, or an other health impairment had scores above the population mean. These results varied significantly by age, with older children performing significantly higher than younger children. They also varied by race/ethnicity, with White children scoring higher than Black or Hispanic children. Children in the lowest household income group ($20,000 or less) scored significantly lower than children in all other income groups.
- Overall, preschoolers with disabilities who participated in the direct assessment performed within one standard deviation of the population mean on the Peabody Picture Vocabulary Test (PPVT), with a mean score of 90.1. However, mean scores ranged from a low of 69.9 for children identified as having mental retardation to a high of 94.6 for children identified as having an emotional disturbance. Significant differences also occurred by race/ethnicity and income.
- The mean performance of 90.3 for preschoolers with disabilities on the Woodcock-Johnson III: Applied Problems test was within a standard deviation of the population mean. That was the case for children identified as having a speech or language impairment (M = 96.4), an emotional disturbance (M = 94.9), or an orthopedic impairment (M = 91.1). Children identified as having mental retardation had a mean score more than two standard deviations below the population mean (M = 60.6). Scores for Black and Hispanic children were more than one standard deviation below the population mean; that was also the case for children in the lowest income group.
- Children with disabilities in age Cohort C had a mean score of 91.2 on the Woodcock-Johnson III: Quantitative Concepts subtest. This subtest was given to children in Cohort C

only, because norms are only available for children 5 and older. Scores ranged from a low of 78.5 for children identified as having mental retardation to a high of 95.6 for children identified as having a speech or language impairment. Children in all racial/ethnic and income groups scored within one standard deviation of the population mean.

- Teacher ratings on the Preschool and Kindergarten Behavior Scales (PKBS-2) – Social Skills scale suggested that the social skills of children with disabilities fell well within one standard deviation of the population mean; however, older children scored significantly higher than younger children. Mean scores for children identified as having autism and children identified as having mental retardation were significantly lower than mean scores for children identified as having other disabilities. Females had significantly higher social skill scores than males. Significant differences also occurred by race/ethnicity.
- Teacher ratings on the PKBS-2 – Problem Behaviors scale revealed that, overall, children with disabilities performed within one standard deviation of the population mean on problem behavior. Ratings for children identified as having an emotional disturbance or autism were high, indicating many problem behaviors; ratings for children identified as having an orthopedic impairment or a speech or language impairment were low, indicating fewer problem behaviors. Males had significantly more problem behavior than females, and Black children had higher ratings than Hispanic or White children. Differences by income group were also significant.
- The mean rating for kindergarteners with disabilities in Cohort C on the Adaptive Behavior Assessment System II (ABAS-II) Self-Care scale, which measures each child's basic personal care skills, was 8.1, which fell in the lower half of a 20-point scale. Children with disabilities in Cohorts A and B, who were in early childhood programs (not yet in kindergarten), had a mean rating of 8.6. Children identified as having an orthopedic impairment had a mean of 5.2; children identified as having a speech or language impairment had a mean of 10.0.

- The mean rating for kindergarteners with disabilities in Cohort C on the ABAS-II Self-Direction scale, which assesses each child's skills in self-control and personal responsibility, was 8.2. Ratings across disability categories ranged from a mean of 7.0 for children identified as having autism to 10.5 for children identified as having a speech or language impairment. Ratings for White preschoolers were significantly higher than those for Black children. Significant differences also occurred by income group.
- Overall, children with disabilities had a mean score of 94.3 on the Motor Skills subscale of the Vineland Adaptive Behavior Scales. Mean scores for children identified as having an orthopedic impairment (72.5), an other health impairment (76.0), a low-incidence disability (81.0; e.g., visual impairment or traumatic brain injury), or mental retardation (68.0) were more than one standard deviation below the mean.

Chapter 1: Introduction

Joy Markowitz and Elaine Carlson

In 1986, federal legislation (Public Law 99-457)[3] increased incentives for states to provide a free appropriate public education (FAPE) for all children with disabilities ages 3–5 by school year 1991–92. As of 2001, all states, the District of Columbia, and outlying areas were making preschool special education services available. In 1986, there were 261,000 children served under the Preschool Grants Program. By 2001, when all states were making services available, this number reached 598,922 (Trohanis 2002). The number of preschool children receiving special education services continues to grow, and questions are being asked about the children receiving those services, their families, the nature of the services provided, and the children's academic performance (DOE 2005).

The Pre-Elementary Education Longitudinal Study (PEELS), funded by the U.S. Department of Education, was designed to examine the preschool and early elementary school experiences of children with disabilities and the outcomes they achieve. The study will follow a nationally representative sample of children with disabilities ages 3–5 through 2009. Five broad descriptive research questions guide the data collection, analysis, and reporting for this multiyear study.

- What are the characteristics of children receiving preschool special education?
- What preschool programs and services do they receive?
- What are their transitions like—between early intervention and preschool, and between preschool and elementary school?
- How do these children function and perform in preschool, kindergarten, and early elementary school?
- Which child, service, and program characteristics are associated with children's performance over time on assessments of academic and adaptive skills?

[3] Public Law 99-457 amended the *Education of the Handicapped Act* (EHA), originally passed in 1975. The 1990 amendments to this law changed its name to what we now know as the *Individuals with Disabilities Education Act* (IDEA).

A few key points are critical for understanding the data in this report.

- PEELS draws on a national sample of children with disabilities ages 3–5. The sample is selected by age, not by grade, so some of the children are in kindergarten; others are in preschool, day care, or at home. The children may or may not have received early intervention services through the Individuals with Disabilities Education Act (IDEA) Part C.
- The data in this report were weighted.[4] Therefore, estimates apply to all children with disabilities ages 3–5 in the United States, not the sample of participating children.
- A small supplemental sample of local education agencies (LEAs) and children will be added to PEELS in Wave 2 to account for undercoverage in one region of the country. Wave 1 sampling weights will be adjusted at the conclusion of Wave 2 data collection. Because of anticipated reweighting, the data in this report are preliminary.

This report addresses the five broad descriptive research questions posed previously using data from the first wave of data collection. Chapter 2 describes the study design and methods. Chapters 3–6 each address one of the study questions listed previously. Four appendices are included in this report. Appendix A contains the standard errors for data tables presented in chapters 1–6. Appendix B contains data on how PEELS children performed on the Individual Growth and Development Indicators (IGDIs) developed by the Early Childhood Research Institute on Measuring Growth and Development. The IGDIs will be used to describe children's growth and development over time (ECRI-MGD 1998, 2001). However, because they are not norm referenced, IGDI data are not in chapter 6 with the other assessment results. Appendix C contains the standard errors for figures presented in chapters 1–6. Appendix D includes data tables and standard error tables that supplement those in the body of the report. Appendix E contains detailed information on sampling procedures used in PEELS, and Appendix F provides the

[4] Sample weights were used to derive population estimates from the sample. To generate the weighted estimates, sample data were multiplied by the appropriate weight, which reflected the probability of being sampled. For more complete information, see Lee, H., Carlson, E., Lo, A., Fan, J., Chen, L., and Klein, S. (2004). *Final Methodology Report* (Deliverable 13.2 under Contract # ED-01-CO-0082). Rockville, MD: Westat, available at www.peels.org.

number of children who had various test accommodations by gender, race/ethnicity, cohort, and disability category.

As additional data become available, PEELS researchers will expand upon the findings in this report and address how children's characteristics, services, transitions, and outcomes change over time. For more complete information on PEELS results, please go to www.peels.org and review the data tables and reports posted there.

Chapter 2: Methods

Hyunshik Lee and Elaine Carlson

PEELS is designed to describe children ages 3–5 with disabilities and the services they receive, what their transitions are like from early intervention to preschool and preschool to elementary school, and their performance in preschool, kindergarten, and elementary school. This chapter provides basic information on the sample design, data collection instruments and activities, and data analyses.

Sample Design

PEELS used a two-stage sample design to obtain a nationally-representative sample of 3- to 5-year-olds receiving special education services. In the first stage, a national sample of LEAs was selected. In the second stage, a sample of preschoolers with disabilities was selected from lists of eligible children provided by the participating LEAs.[5]

We will refer to different samples throughout the chapter, so it may be helpful to define them clearly from the outset. The sample selected following the original sample design is called the main sample. This sample was selected by a two-stage design, LEAs at the first stage, and children at the second stage. To address nonresponse bias at the LEA level, a nonresponse bias study sample was selected from the nonparticipating LEAs (details will be explained later). The combined sample of the main and the nonresponse study sample is a three-phase sample, where the first-phase is the same as the main sample, the second-phase is a combined LEA sample comprised of the main sample LEAs and the nonresponse study sample LEAs, and the third phase is the sample of children selected from the combined LEA sample.

[5] In this report, the terms LEA and district will be used interchangeably.

Main LEA Sample

In 2001, SRI International, the contractor for the design work on PEELS, selected 2,752 LEAs from the universe of LEAs serving preschoolers with disabilities. The sample was stratified by Census region, estimated preschool special education enrollment size, and district poverty level. It was then divided into subsamples. The contractor recruited from the minimum number of subsamples possible to secure participation from 210 LEAs, the target number needed to generate a sufficient number of children in the second stage sample. Ultimately, 709 LEAs were contacted during recruitment, and 245 LEAs agreed to participate.

The design contractor contacted directors of special education and superintendents to secure the districts' participation. A participating LEA was required to return a signed agreement form stating the district would complete the following tasks:

- Provide one or more names and contact information for a potential site coordinator for the study;
- Allow the site coordinator and other cooperating district staff to recruit families into the study;
- Forward contact information from parents who consented to participate in the study;
- Allow selected teachers, other service providers, and principals of sampled children to complete a mail questionnaire; and
- Allow selected children to participate in a direct assessment, with parental consent.

The design contractor focused recruitment efforts on very large LEAs because a large proportion of the sample would be selected from these districts, and smaller LEAs could be replaced (Javitz, Hebbeler, & Levine 2001). Because the initial recruitment occurred in 2001, and data collection did not begin until 2003, Westat, the contractor for the implementation phase, recontacted the participating LEAs to confirm their willingness to participate.

In spring 2003, forty-six of the 245 LEAs recruited in 2001 dropped out of the study. The 199 remaining LEAs confirmed their participation and began to supply Westat with the lists of preschool children receiving special education services.

Nonparticipation of a large state in phase 1 of LEA recruitment created serious undercoverage for the region in which the state is located. In 2003, Westat tried to replace large districts in the region that dropped out of the study by sampling four additional large LEAs from the state, in the hope of reducing the undercoverage. Only one of those four LEAs agreed to participate in PEELS; therefore, the undercoverage of that region was largely unresolved. To address this undercoverage, additional LEAs will be recruited in Wave 2 to include more districts from the previously nonparticipating state. Therefore, results from Wave 1 will be considered preliminary until the supplemental sample is added.

To address concerns about nonresponse bias, the U.S. Department of Education funded a comprehensive nonresponse study. In Wave 1, Westat selected a sample of 32 LEAs from among the 464 nonparticipating LEAs that SRI originally recruited and asked them to participate fully in the study. Since the nonresponse bias study sample size was too small, it was not possible to use the original main sample design, and so only size was used to stratify the 464 nonparticipating LEAs to select the sample of 32. Twenty-five of those LEAs (78%) initially agreed to participate in the study. This nonresponse study sample was roughly 10 percent of the size of the main LEA sample. Because the results of the nonresponse bias study showed no systematic differences between the respondents and nonrespondents, the two samples were amalgamated into a single sample as if they had been selected as one.

Child Sample

Participating districts in the combined sample submitted lists of eligible children, from which the sample of children was selected. The first was a historical list that asked districts to identify age-eligible children who had an individualized education program (IEP) prior to March 1, 2003 (or an Individualized Family Service Plan [IFSP] for districts using IFSPs for children 3 to 5). The second set of lists, called ongoing lists, were submitted monthly for one year and asked districts to identify newly eligible children

in the district by listing children who received their first IEP in the given month. Districts identified children using numbers, rather than names, to maintain confidentiality. Children who transferred from another district with an IEP already in effect were not included on the ongoing lists.

The lists of child identification numbers submitted by the districts were checked for ineligible or duplicate cases within and across lists. Errors were corrected through communication with district site coordinators. Westat began selecting children from historical and ongoing lists late in the 2002–03 school year. The districts continued to send lists of children once a month as the children entered the special education system, and Westat continued to select additional children for the site coordinators to recruit. By the end of family recruitment, Westat had selected a sample of 5,258 children.

There are three age cohorts in PEELS: Cohort A is comprised of 3-year-olds; Cohort B of 4-year-olds, and Cohort C of 5-year-olds, defined in table 1. Cohort A consists of children in the specified age range who were newly enrolled in the special education program during the recruitment period, and they were to be sampled as they enrolled. These children are on the "ongoing" list. Cohort B consists of children in the eligible age range who were enrolled before the recruitment period ("historical") and children who were newly enrolled (i.e., ongoing). Cohort C also consists of historical and ongoing children. Thus, there are five combinations of age cohort and historical-ongoing status for each district. These combinations will be called child sampling classes.

Historical-list children were sampled using predetermined sampling rates when the participating districts provided their historical lists of 4- and 5-year-old children. Children on the ongoing lists were sampled as the districts periodically sent lists of 3-, 4-, and 5-year-olds. Each district had a predetermined sampling rate, which was typically used throughout the recruitment period. However, in some cases, the sampling rates were recalculated based on updated district size information.

Table 1. Definition of PEELS age cohorts

Cohort	Age at entry into PEELS	Date of birth
A	3 years old	3/1/00 through 2/28/01
B	4 years old	3/1/99 through 2/29/00
C	5 years old	3/1/98 through 2/28/99

The historical sampling rates were generally lower than the ongoing sampling rates within a cohort. Both rates were determined to achieve the target sample sizes for the five combinations, while keeping the weights within the combinations as equal as possible. One constraint to this weighting was a cap of 80 children for each district. This cap was set so no individual districts would be overburdened. Although the cap was considered in determining the sampling rates, Westat nonetheless surpassed the cap in a few instances because some large districts submitted lists that included more children than we predicted. In these cases, the sample was reduced to 80.

To determine the sampling rates for the five child sampling classes in each district in the main sample, we used district-level sampling weights and district-level child counts, by cohort. We calculated the sampling rates for each LEA based on LEA child counts we obtained from SEA personnel or websites. Most of the child counts were from December 2003; some were older. For the nonresponse bias study, for each of the 25 LEAs, the cohort sampling rates were determined in order to obtain homogeneous child weights.

Family Recruitment

Once children were sampled from the historical or ongoing lists, Recruitment Packets were sent to the district site coordinators. Site coordinators were responsible for determining if sampled children were eligible and, if so, invited their parents or guardians to participate in PEELS. While some family recruitment began in summer 2003, it began in earnest in fall 2004. Each recruitment packet included

Enrollment Forms (Part 1 and Part 2), a PEELS brochure, a cover letter explaining the study, a PEELS magnet, and a postage-paid envelope addressed to Westat.

Each recruitment packet was arranged according to the unique PEELS identification number assigned by Westat to each sampled child. Site coordinators from each district were given a recruitment log, which listed each child's PEELS identification number along with the child's district identification number (submitted on the historical/ongoing lists). Site coordinators were asked to match the identification numbers on the log with the proper child, apply eligibility standards, then invite the eligible families to participate in PEELS. Site coordinators were also encouraged to document the recruitment process using the log.

Part 1 of the PEELS Enrollment Forms was eight questions long, and was typically filled out by the district's site coordinator before inviting the family to participate in the study. Five of the eight questions on the form asked site coordinators for non-identifying information for each child sampled. Westat collected these data to test for differences between families that agreed and those that declined to participate in PEELS. The remaining three questions on the Enrollment Form were used to determine the eligibility of each family selected. PEELS had three eligibility criteria:

1. There was an English- or Spanish-speaking adult or an adult who used signed communication in the household who could respond to the telephone interview or alternatively respond using a telephone relay service or interpreter for the hearing impaired.
2. This was the first child in the family sampled for PEELS.
3. The sampled child's family resided in the participating school district at the time of enrollment in PEELS.

If all three eligibility criteria were met, families were given recruitment materials, including a letter explaining the study, the PEELS brochure, and a magnet. The site coordinator informed the family that PEELS is a longitudinal study, that participation is voluntary, and that they could drop out at any time. Site coordinators stressed Westat's commitment to confidentiality, ensuring the family that their identity would be protected and that only aggregate data would be reported.

Families that agreed to participate were asked to fill out the PEELS Enrollment Form, Part 2, which asked for identifying information such as names, contact information, the type of services the child received, and the name of the child's teacher or service provider. Once they submitted a signed consent form agreeing to allow Westat to conduct the parent telephone interview, the child assessment, and the teacher/service provider questionnaire, parents received $15. Site coordinators were paid $30 for each family they recruited.

As site coordinators enrolled families to participate in PEELS, their cases were released for the various data collection activities, including the parent telephone interview, the child assessment, and the teacher and program administrator questionnaires. Family recruitment ended on June 7, 2004.

Westat received completed enrollment forms for 4,072 children. Based on those enrollment forms, 88 percent of families were found eligible, and 81 percent of those eligible agreed to participate. Signed consent forms were received from 2,678 families in the main sample and 229 families in the nonresponse sample (total of 2,907 families).

Data Collection Instruments and Activities

Wave 1 data were collected through several different instruments and activities, including a telephone interview with the participating children's parents/guardians, direct one-on-one assessment of participating children, and mail questionnaires to the teacher or service provider of each child. Additionally, questionnaires were mailed to program/school-, LEA-, and state-level administrators to obtain contextual information about service environments.

Parent/Guardian Interview. A parent/guardian of each child in the sample was asked to complete a 1-hour computer-assisted telephone interview (CATI) about the participating child's health and disability, behavior, school programs and services, special education and related services, child care, and out-of-school activities. Respondents also were asked a series of questions about their household, its resources, and family background.

Parent interviews for Wave 1 were conducted between October 2003 and June 2004 and averaged 58 minutes. The interviews were conducted in English, Spanish, signed communication, or by using a text telephone, based upon respondent preference. In Wave 1, interviews were conducted with 2,802 families, for a 96 percent response rate.

Assessment Instruments. The direct one-on-one assessment was designed to obtain information on the knowledge and skills of preschoolers with disabilities. Ultimately, PEELS will examine the growth children exhibit over time and factors associated with differences in growth among children. More than 400 assessors in participating LEAs were employed and trained to administer the one-on-one assessment with participating children. The assessors included school psychologists, teachers, administrators, and other individuals experienced in administering standardized assessments to young children with disabilities.

The assessors were responsible for determining which assessment the child would be given—direct or alternate—and if the child needed a Spanish assessment. An alternate assessment was given if the child could not follow simple directions, had a visual impairment that would interfere with test administration, or if the child began the direct assessment but could not meaningfully participate due to a disability. Assessors also determined if test accommodations were needed based on short interviews with teachers, service providers, or parents. Arrangements for assessments were scheduled with early childhood education programs, elementary schools, teachers, special educators, and parents.

Training for PEELS assessors included video-based instruction on test procedures, as well as a 1-1/2 day in-person training that was conducted at several locations around the country. Also, each assessor was given a procedures manual. The administrative procedures associated with PEELS assessments were explained during the in-person training, and the assessors practiced each subtest following the protocol prescribed for PEELS.

In Wave 1, a direct or alternate assessment was completed for 96 percent of the participating children (84% direct, 12% alternate). The direct assessment averaged about 40 minutes and included the following subtests:

- preLAS 2000 Simon Says (Duncan & De Avila 1998);
- preLAS 2000 Art Show (Duncan & De Avila 1998);
- Peabody Picture Vocabulary Test (Dunn & Dunn 1997);
- Woodcock-Johnson III: Letter-Word Identification (Woodcock, McGrew, & Mather 2001);
- Woodcock-Johnson III: Quantitative Concepts (Woodcock, McGrew, & Mather 2001);
- Woodcock-Johnson III: Applied Problems (Woodcock, McGrew, & Mather 2001);
- Leiter-R Attention Sustained Scale (Roid & Miller, 1995, 1997);
- Individual Growth and Development Indicators: Picture Naming (ECRI MGD 2004);
- Individual Growth and Development Indicators: Alliteration (ECRI MGD 2004);
- Test of Early Math Skills (US HHS 2005b);
- Individual Growth and Development Indicators: Rhyming (ECRI MGD 2004); and
- Individual Growth and Development Indicators: Segment Blending (ECRI MGD 2004).

The preLAS 2000. The oral language component of this test is designed to assess the oral language proficiency of second-language English learners. PEELS used receptive vocabulary and expressive vocabulary subtests and administered them to all the participating children to determine whether children had adequate oral language skills to complete the direct assessment. In fact, preLAS served as a screening device not only for English language learners but also children whose disabilities delayed their oral language development. On the Simon Says subtest, assessors asked children to perform a variety of tasks to determine if they understood simple commands. On the preLAS 2000 Art Show, assessors asked children to identify objects in a series of pictures. For later items, assessors also asked the child to identify uses for the objects. Test developers reported a cross-form correlation of .89 for Simon Says and a cross-form coefficient of .94 for Art Show. Cronbach's alphas ranged from .88 to .90 (Duncan & De Avila 1998). In all, 2,433 children in PEELS took preLAS Art Show, and 2,437 took Simon Says.

The Peabody Picture Vocabulary Test. In this widely used test of receptive language, assessors show children a page with four pictures and ask them to point to the picture of the item that the assessor names. The version we used for PEELS had been shortened using item response theory. Item response

theory (IRT) uses the pattern of correct, incorrect, and omitted responses to the items actually administered in a test and the difficulty of each item to estimate the score each child would have obtained if all of the test items had been administered. In the adapted Peabody Picture Vocabulary Test (PPVT) used in PEELS, all children completed a core set of items. Based on their performance on the core, they either took an easier, basal set of items; stopped after the core set; or took a harder (ceiling) set of items.

This adaptation was based on the full-length PPVT-III and earlier work for the Head Start Family and Child Experiences Survey (FACES) and Head Start Impact Study (HSIS). The 32-item PEELS PPVT is very similar to the 40-item HSIS 2002 test. Based on findings with the shortened version of the PPVT in the HSIS sample, it was decided to remove some of the more difficult items and add some easier items for the PEELS adaptation of the PPVT. In selecting items for both HSIS and PEELS, the goal was to select a core item set at the optimal level of difficulty for the 67 percent of the PEELS target population found between the mean plus or minus 1 standard deviation ($\mu \pm \sigma$). In this case, 67 percent of the PEELS children would only need to be administered the core item set. Easier items on the PPVT were used in the basal set and harder items in the ceiling set. With these adjustments, PEELS Form A (for Wave 1) was constructed with 32 items, 14 core items, 8 basal items, and 10 ceiling items.

The IRT true-score for the items in the Form A core set was used to derive basal and ceiling decision rules appropriate for the PEELS target population. The IRT true-score was a model-based estimate of the number-right raw score, which assessors could calculate in the field by adding up the number of correct responses on the core set. We expected about 67 percent of the population to be found between −2.419 and −0.393. These values roughly correspond to 6 correct responses at the low end and 12 correct responses at the high end. Consequently, the basal decision rule stated that six or fewer correct responses required administration of the basal items. In planning the assessment, we expected approximately 16 percent of the children to receive 14 core plus 8 basal items, for a total of 22 items. The ceiling decision rule stated that 12 or more correct responses required administration of the ceiling items. We expected approximately 16 percent of the children to receive 14 core plus 10 ceiling items for a total

of 24 items. We expected the remaining 67 percent to receive only the 14 core items, reducing substantially the average time required for completing the subtest. The IRT estimate of test reliability for a population having distribution parameters equal to those of the PEELS latent ability distribution is r_{xx} = 0.781. The sample-based IRT reliability obtained from ability estimates and standard errors of measurement is r_{xx} = 0.861.

The PPVT short forms yield the same expected score values as the full PPVT, making the publisher's norms appropriate. The expected score values on the shortened form have a somewhat larger standard errors, due to the smaller number of items. The larger standard errors could be problematic in a clinical setting in which decisions are being made about individuals. However, in a research setting, standardized scores are used for population and subgroup estimates, and the norms allow comparisons with the overall national population of identical age.

The standard version of the PPVT-III had high alternate form reliability for the standardized scores (.88 to .96). Split-half reliability coefficients were also high (.86 to .97). Test-retest reliability coefficients were in the .90s (Dunn & Dunn 1997). PPVT-III scores were significantly correlated with age; the steepest part of the growth curve occurred from age 2 ½ to 12. Dunn and Dunn (1997) reported that the PPVT-III correlated with the Wechsler Intelligence Scale for Children–Third Edition (Weschler 1991; r = .82 to .92), Kaufman Adolescent and Adult Intelligence Test (Kaufman & Kaufman 1993; r = .76 to .91), Kaufman Brief Intelligence Test (Kaufman & Kaufman 1990; r = .62 to .82), and the Oral and Written Language Scales (Carrow-Woolfolk 1995; r = .63 to .83). PPVT standard scores were generated for 2,352 PEELS participants.

The Woodcock-Johnson III Letter-Word Identification subtest. This test requires children to identify letters that appear in large type on their side of the assessment easel. Later items require children to read words aloud. McGrew and Woodcock (2001) reported a .92 one year test-retest correlation for children ages 4 to 7. Test scores were correlated with age (McGrew & Woodcock 2001). They also reported that the complete Woodcock-Johnson III achievement battery was correlated with the Wechsler Individual Achievement Test (Weschler 1992; r = .79) and the Kaufman Test of Educational

Achievement (Kaufman & Kaufman 1985; r = .79). In PEELS, 2,434 children had standard scores for the Woodcock-Johnson III Letter-Word Identification subtest.

The Woodcock-Johnson III: Quantitative Concepts subtest. This test measures knowledge of mathematical concepts, symbols, and vocabulary. The subtest is divided into two parts. Part A, Concepts, requires the child to count and identify numbers, shapes, and sequences. Part B, Number Series, requires the child to look at a series of numbers, figure out the pattern, and then provide the missing number in the series. Test developers reported that scores on the Quantitative Concepts subtest were correlated with age (McGrew & Woodcock 2001). For Wave 1, it was given only to children ages 5 and older; 866 PEELS children had Woodcock-Johnson III Quantitative Concepts standard scores.

The Woodcock-Johnson III: Applied Problems subtest. This test requires the child to analyze and solve math problems. To solve the problems, the child listened to the problem, recognized the procedure to be followed, and then performed relatively simple calculations. Test developers reported a one year test-retest correlation of .92 for children ages 4 to 7 (McGrew & Woodcock 2001). Standard scores on the Applied Problems subtest were available for 2,437 children in PEELS.

The Leiter-R Attention Sustained scale. This test measures a child's ability to attend to a series of pictures. This was a timed task in which assessors showed children an image and asked them to identify and mark all of the matching images on the page using a marker. Assessors administered different versions of this subtest depending on the child's age. Roid and Miller (1997) reported a test-retest reliability coefficient of .85 on the complete Leiter-R, which is a non-verbal test of intelligence and cognitive ability. They also cited a significant correlation between the complete Leiter-R and the Weschler Intelligence Scale for Children-III, Full Scale IQ (r = .86). Correlations of .33 to .62 were reported for the Stanford-Binet–Fourth Edition (Thorndike, Hagan, & Sattler in Roid & Miller 1997), Wide Range Assessment of Learning and Memory (Adams & Sheslow in Roid & Miller, 1997), and Test of Memory and Learning (Reynolds & Bigler in Roid & Miller 1997). Full Leiter-R scores were correlated with age. The growth curve showed an upward trend until age 15 and then reached a plateau.

The multiple correlation with age was .98 (Roid & Miller 1997). In all, 2,218 children in PEELS had standard scores on the Leiter-R Attention Sustained scale.

IGDI Picture Naming. In this timed task, assessors show children pictures and ask them to name as many pictures as possible in one minute. McConnell, Priest, Davis, & McEvoy (in Missal & McConnell 2004) reported one month alternate-form reliability coefficients from r = .44 to .78 and three week test-retest reliability of r = .67. IGDI Picture Naming correlated with a variety of other language development measures, including PPVT-III (r = .56 to .75) and the Preschool Language Scale-3 (Zimmerman, Steiner, & Pond 1992; r = .63 to .79). IGDI Picture Naming scores were significantly correlated with chronological age (r = .41; Missal & McConnell 2004). McConnell and colleagues and Missall (in Missal & McConnell 2004) also reported concurrent validity with the Dynamic Indicators of Basic Early Literacy Skills Letter Naming Fluency (DIBELS; Kaminski & Good 1996; r = .32 to .37) and Onset Recognition Fluency (r = .44 to .49). In PEELS, 2,185 children completed the IGDI Picture Naming subtest.

IGDI Alliteration. This is a timed 2-minute task in which assessors show children a picture at the top of the page and three pictures at the bottom of the page, and name the pictures for the children. The assessor asks the children to identify which of the items at the bottom of the page starts with the same sound as the item at the top of the page. It was given only to children 4 and older. Test-retest reliability over a three week period was r = .46 to .80. Missal and McConnell (2004) reported that the IGDI alliteration subtest correlated with a number of other standardized tests of early literacy, including the PPVT III (r = .40 to .57), Test of Phonological Awareness (r = .75 to .79), and Concepts About Print (r = .34 to .55). The Alliteration scores were also correlated with age (r = .61) (Missal & McConnell 2004). McConnell and colleagues and Missal (in Missall & McConnell 2004) reported moderate to high concurrent validity with DIBELS Letter Naming Fluency (r = .39 to .71). Because of the age requirements, only 780 children in PEELS completed the IGDI Alliteration subtest in Wave 1.

The Test of Early Math Skills. This test measures a variety of mathematical concepts, including counting, adding, and number and shape identification. It was developed for use as part of the Head Start

National Reporting System (HSNRS) and is based on items adapted from the Early Childhood Longitudinal Study-Kindergarten cohort (ECLS-K) Mathematics assessment (US HHS 2005b). Test developers reported test-retest reliability of r = .79. Correlations with other tests used in the Head Start National Reporting System showed discriminant validity: abbreviated PPVT-III (r = .43), Letter Naming (r = .62), and Pre-CTOPP Elision (r = .40) (N. Zill, personal communication). Standard scores on the Test of Early Math Skills were generated for 2,434 PEELS children in Wave 1.

The IGDI Rhyming subtest. In this test, assessors show children a series of pictures and ask them which one rhymes with the target picture. The children identify as many pictures as possible in two minutes. In PEELS, this subtest was given only to children ages 4 and older. In this task, Missal and McConnell (2004) reported test-retest reliability of r = .83 to .89. McConnell and colleagues (in Missal & McConnell 2004) reported that IGDI Rhyming was correlated with the PPVT III (r = .56 to .62), Concepts About Print (Clay 1985; r = .54 to .64), and Test of Phonological Awareness (Torgeson & Bryant 1994; r = .44 to .62). Tests of concurrent validity with DIBELS Letter Naming Fluency (r = .48 to .59) and DIBELS Onset Recognition Fluency (r = .44 to .68) were moderate (McConnell et al. & Missall in Missal & McConnell 2004). IGDI Rhyming scores were significantly correlated with children's age (r = .46) (Missal & McConnell 2004). In Wave 1 of PEELS, 827 children completed this subtest.

The IGDI Segment Blending subtest. This test assesses children's ability to blend sounds in words. Assessors read a series of words in segments, clearly pronouncing each word, syllable, or phoneme with a half-second pause between each segment. They then ask the children to verbalize the blended version of the word. The children blend as many words as possible in two minutes. This is a new assessment, and no psychometric data are currently available. In PEELS, it was given to children ages 4 and older. IGDI Segment Blending scores were available for 1,712 children.

A Spanish version of the direct assessment was available for children who had limited comprehension of English as demonstrated by 1) answering fewer than five items correctly on the English version of the preLAS Simon Says and Art Show (combined) and 2) answering five or more items correctly on the Spanish preLAS Simón Dice and Muestra de Arte (combined). The Spanish assessment

included subtests from preLAS 2000 Simón Dice and Muestra de Arte; Woodcock-Muñoz Letras y Palabras; Problemas Aplicados, and Conceptos Cuantitativos; Leiter-R Attention Sustained Scale; Individual Growth and Development Indicators: Picture Naming; and Test of Early Math Skills. Because of the small number of children completing the direct assessment in Spanish (N = 25), Spanish direct assessment results are not presented in this report. However, 22 of those children's teachers also completed an alternate assessment for them, and all alternate assessment results are reported in this report.

For children who could not complete the direct assessment in English, the Adaptive Behavior Assessment System II (ABAS-II) was used as an alternate assessment. The ABAS-II is a checklist of the child's functional knowledge and skills, and is completed by a teacher or other service provider. It assesses children's functional performance in several areas: communication, community use, functional (pre) academics, school living, health and safety, leisure, self-care, self-direction, social, and work. It also can be used to produce composite scores in conceptual, social, and practical domains. The ABAS-II has two versions. The first version, the Teacher/Daycare Provider Form, is for children not yet in kindergarten. The second version, the Teacher Form, is for children in kindergarten or higher grades. Three hundred thirty-eight PEELS children requiring an alternate assessment had standard scores on the entire Teacher/Daycare Provider Form, and 17 had standard scores on the entire Teacher Form. These counts include children who took a direct assessment in Spanish and also had an alternate assessment completed for them.

Harrison and Oakland (2003) reported coefficient alpha reliabilities for the ABAS-II subtests on the Teacher/Daycare Provider Form ranging from .72 to .94, depending on the age group and subtest, with higher reliabilities for composite domain scores (r = .92 to .97). On the Teacher Form, they reported coefficient alphas ranging from .84 to .97, with composite domain coefficients in the .96 to .98 range. Test-retest reliabilities for periods of two days to six weeks ranged from .66 to .98, depending on age level and subtest. The correlation between the overall composite scores on the ABAS-II, Teacher/Daycare Provider Form, and Vineland Adaptive Behavior Scales, Classroom Edition was r = .75. The correlation

between the ABAS-II Teacher Form overall composite and Vineland overall composites was r = .84 (Harrison & Oakland 2003).

Assessment procedures. When a case was assigned to an assessor, the assessor received a scoring booklet that was specific to the child. A label on the cover indicated the child's first name, last initial, and date of birth. The scoring booklet included instructions for administering the assessments as well as a place for recording children's responses to each item in each subtest. The scoring booklet also included a place to record information from a screening interview the assessor conducted with the child's teacher, service provider, or parent. The screening interview was designed to prepare the assessor for the interview. It helped identify any needed test accommodations, whether the child could participate in the standard assessment or required an alternate assessment, and whether the child should be referred to a bilingual assessor. Before returning the completed scoring booklet, assessors completed a child assessment summary, which captured contact information for the child's current teacher or service providers, whether the direct or alternate assessment was used, the date the assessment was completed, the location where it was completed, accommodations used, and the assessor's certification that he/she assessed the child and the scores were an accurate representation of the child's performance.

If an alternate assessment was required, the assessor gave the ABAS-II to the appropriate respondent and documented the reason for the alternate assessment in the child assessment summary. The assessor received $50, and the person completing the alternate assessment received $50.

Assessors were instructed to offer a variety of test accommodations so participating children could demonstrate what they know and what they can do. In order to assist with decisions regarding accommodations, the PEELS Assessors' Manual included 21 pages from the following document: *Making Assessment Accommodations: A Toolkit for Educators* (Council for Exceptional Children 2000). These pages contain references to accommodations in the IDEA, guiding principles for making assessment accommodations, a description of types of accommodations (e.g., scheduling, setting, presentation, and response), and questions and answers about making accommodations. As noted

previously, assessors determined what test accommodations were needed for individual children based on information gathered during the Screening Interview.

The following accommodations were provided without prior approval:

- enlarged print,
- assessments given by someone familiar with the child,
- assessments given with someone familiar with the child present,
- someone to help the child respond,
- specialized scheduling,
- adaptive furniture,
- special lighting,
- abacus,
- communication device, and
- multiple testing sessions.

The above accommodations are among those permitted on the Woodcock-Johnson III Achievement Battery. (McGrew & Woodcock 2001). Prior approval was required for using sign language interpreters, because of procedures established for their remuneration.

The numbers of children who received various accommodations were as follows:

- 19 used adaptive furniture,
- 9 used a communication device,
- 2 used an enlarged print test easel,
- 3 had a familiar person administer the assessment,
- 174 had a familiar person present in the room during testing,
- 101 completed the assessment in multiple test sessions,
- 14 used a person to help the child respond to items,
- 1 used a sign language interpreter, and

- 14 used some other accommodation (e.g., parent present, quiet location, and gave some answers in Spanish).

A total of 350 children had one or more accommodations, which is 14 percent of the children who completed the direct assessment and for whom accommodation data were available. Appendix F provides information on the number of children who had various test accommodations by gender, race/ethnicity, cohort, and primary disability. In regard to having one or more test accommodations, there were no significant differences by gender, race/ethnicity or cohort. There were differences across disability categories, ranging from 10 percent of children identified as having a speech or language impairment to 37 percent of children identified as having an orthopedic impairment.

Children tested with accommodations were included in assessment results, and data on their performance was analyzed in the same way as data for children who did not require accommodations.

Mail Questionnaires. Wave 1 of PEELS included several mail questionnaires. The State Education Agency Policy and Practices Questionnaire, which was sent to state preschool special education coordinators, listed a number of program areas and requested information about the state's strengths, weaknesses, and work toward improvement in these areas. The questionnaire also included items on inclusion policies, collaboration with early intervention providers in the state, and interagency agreements related to preschoolers with disabilities. We received all 51 questionnaires for a 100 percent response rate. This questionnaire will not be administered again in Waves 2 through 5, because we expect the state policy context to be relatively stable over that length of time.

The Local Education Agency Policy and Practices Questionnaire was sent to local directors of special education. It was used to collect information on LEA enrollment figures and demographics, availability of preschool programs for nondisabled children, use of various preschool special education service settings, and interagency agreements related to preschoolers with disabilities. The questionnaire also included a list of program areas, and local directors were asked about the LEA's strengths, weaknesses, and work toward improvement in these areas. The response rate for this questionnaire was 90

percent. This questionnaire will not be administered again in Waves 2 through 5, because we expect the local policy context to be relatively stable over that length of time.

The Elementary School Principal Questionnaire or Early Childhood Program Director Questionnaire was sent to principals or program directors, as appropriate, of the children's schools/ programs. These questionnaires ask about school/program and community characteristics; student characteristics; staff, programs, and resources; special education programs and practices; and parent involvement. Only one Elementary School Principal Questionnaire or Early Childhood Program Director Questionnaire was sent to each school/program, regardless of the number of PEELS-participating children. The initial response rate was 40 percent, but the field period for these instruments was reopened in 2005, allowing researchers to follow up with initial nonrespondents. The final response rate was 72 percent. Results from the Elementary School Principal Questionnaire and Early Childhood Program Director Questionnaire will be reported in 2006.

In Waves 2 through 4, these questionnaires will be sent to principals/program directors of PEELS children who move to new schools or programs. In Wave 5, the data collection will be repeated with principals of all participating children.

Two versions of the teacher questionnaire were used in Wave 1, the Early Childhood Teacher Questionnaire (for children not yet in kindergarten) and the Kindergarten Teacher Questionnaire. An Elementary Teacher Questionnaire for children in grades 1 and higher will be added in Wave 2. All three teacher questionnaires ask about the specific child named on the inside cover and the child's experiences in the class or program. Questionnaire items address classroom staffing and materials, interaction with nondisabled peers, teachers' philosophies of early childhood education, and children's transitions in and out of their current programs. A pull-out section of the teacher questionnaires addresses the children's special education programs and related services. For Wave 1, the questionnaires were completed by either the classroom teacher or the special education service provider, as appropriate.

The teacher questionnaires also include the following teacher rating scales (indirect assessments): three subtests of the ABAS-II—Functional (Pre) Academics, Self-Care, and Self-Direction; the Vineland

Adaptive Behavior Scales Classroom Edition, Motor Skills Domain; and the Preschool and Kindergarten Behavior Scales, Second Edition. The Kindergarten Teacher Questionnaire also includes an Academic Rating Scale (ARS). Seventy-five percent of children's teachers in Wave 1 returned questionnaires. One teacher questionnaire will be sent to the teachers of participating children in Waves 2 through 5.

Three subscales of the ABAS-II were included with mail questionnaires sent to every child's teacher. In Wave 1, there were 1,561 children who had scores on the Pre-Academics, Self-Care, and Self-Direction scales from the Teacher/Daycare Provider Form. Another 237 had Functional Academics, Self-Care, and Self-Direction scores from the Teacher Form generated from responses to the Kindergarten Teacher Questionnaire.[6]

The Fine Motor and Gross Motor subscales from the Vineland Adaptive Behavior Scales Classroom Edition are included in the PEELS teacher questionnaires to provide a measure of each child's motor skills. Teachers are asked to rate the child's performance on a series of behaviors using a three-point scale: 1, *usually*, 2, *sometimes or partially*, and 3, *never*. Teachers select their responses from one of two columns depending on whether they observe the child performing the behavior or if their ratings are based on an estimate. The children's scores on the two subscales are summed and converted into one standardized motor skills score.

The standard scores are based on a distribution with a mean of 100 and a standard deviation of 15. Norms for the Vineland Motor Skills domain were developed only for children ages 3 to 6, since motor development levels drop off after that age. Scores for children ages 3 to 6 showed patterns of growth similar to the norm population (Sparrow, Balla, and Cicchetti 1985).

The coefficient alpha reliability for the Motor Skills domain was .80 (Sparrow et al. 1985). Correlations between the Vineland Motor Skills standard scores and Adaptive Behavior Composite standard scores on the Kaufman Assessment Battery for Children (K-ABC) (Lambert & Windmiller 1981), ranged from .23 to .60 in a sample of nondisabled children, with the highest correlation for nonverbal skills (Mealor in Sparrow et al. 1985). Correlations were moderate between the Vineland

[6] Information on the reliability of the ABAS-II was provided previously in the section on the alternate assessment.

Motor Skills standard scores and PPVT-Revised standard scores (r = .20; Sparrow et al. 1985). In all, 2,084 PEELS children received motor skills composite scores.

The PKBS-2, which was included in the Early Childhood Teacher and Kindergarten Teacher Questionnaires, is specifically designed to evaluate the social skills and problem behaviors of children ages 3 to 6. It is a norm-referenced, standardized instrument that includes two scales, a social skills scale (34 items) and a problem behavior scale (42 items) (Merrell 2002). PEELS used the school-rater form.

Test developers reported Cronbach alpha coefficients of .96 to .97 for ages 3 to 6 on the Social Skills scale and .93 to .95 on the Problem Behavior scale. Three week test-retest reliability for subscales of the Social Skills scale ranged from .58 to .66. For subscales of the Problem Behavior scale, test-retest reliability was in the .70 to .78 range. Merrell (1995) reported significant correlations between the PKBS-2 and the Social Skills Rating System (SSRS, Gresham & Elliott 1990), Matson Evaluation of Social Skills with Youngsters (Matson, Esvelt-Dawson, & Kazdin 1983), Connors Teacher Rating Scales (Conners, 1990), and School Social Behavior Scales (Merrell 1993).

The ARS was developed and used in the Early Childhood Longitudinal Study-Kindergarten cohort (ECLS-K) to measure teachers' evaluations of children's academic achievement in a number of domains. Teachers were instructed to rate each child's skills compared with those of other children the same age or grade level. Teachers rated children's skills on a scale from "not yet" to "proficient." Items were developed using a variety of criteria, including coverage of skills identified in the literature as predictive of later achievement and skills, knowledge, and behavior included in recent state and national curriculum standards (Pollack et al. 2005). However, no data are currently available on the reliability and validity of the scale. ARS scores were available for 251 PEELS children in Wave 1. The number of Wave 1 respondents and the response rate for each instrument is presented in table 2.

Table 2. Total number of respondents for each PEELS instrument

Instrument type	Total N	Response rate
Parent interview	2,800	96%
LEA questionnaire	196	80%
State education agency questionnaire	51	100%
Early childhood teacher questionnaire	1,913	76%
Kindergarten teacher questionnaire	259	71%
Child assessment	2,795	96%
English direct assessment only	2,437	84%
Spanish direct assessment only	3	< 1%
Alternate assessment only	333	11%
Alt assessment & Spanish direct assess	22	< 1%

Data Preparation and Analysis

In data preparation, imputation was conducted for selected items on the child assessment data, teacher questionnaire data, and parent interview data. In general, the item missing rate was quite low, mostly less than 10 percent. We used different methods of imputation depending on the nature of missing and available information for imputation. The methods included hot-deck imputation, regression, external data source, and deterministic or derivation method, based on the internal consistency principle of inter-related variables. In some cases, a postulated value was imputed after analyzing missing patterns. Whenever a value of a variable was imputed, an imputation flag for the variable was created in the data set to record the change.

It is extremely difficult to obtain an unbiased variance estimator for a complex sample like the one used in PEELS. The jackknife variance estimator was used; it takes account clustering effects and other weighting adjustments for nonresponse and post-stratification. The variance estimator is usually slightly conservative and tends to lead to a slightly smaller chance of type I error than indicated by the significance level of the test. PEELS researchers performed post-stratification whenever possible to enhance the precision of the survey estimates.

All analyses were conducted using Wesvar Version 4.2 (Westat 2002) to account for the complex probability sampling used in PEELS. After the first wave of PEELS data collection, descriptive statistics were generated from the mail questionnaires, parent interview, and assessment data. Descriptive statistics

included measures of central tendency (i.e., means and medians), percentages that described the distribution of categorical data, and variance estimates. Initially, descriptive statistics were selected for each item from the CATI and mail questionnaires, calculated, and presented in a series of data tables. These data address the first four study questions:

- What are the characteristics of children receiving preschool special education?
- What preschool programs and services do they receive?
- What are their transitions like between early intervention and preschool, and between preschool and elementary school?
- How do these children function and perform in preschool, kindergarten, and early elementary school?

Data tables for most items in the parent interview, mail questionnaires, and English version of the direct assessment subtests were generated, with one table for each of four independent variables, including: age cohort, race/ethnicity, household income, and disability. Those tables served as the primary source of information for this report. The data presented in those tables and in this report are preliminary. Following Wave 1, additional districts were recruited, and Wave 1 weights will be adjusted to account for changes in the district and child samples.

The four independent variables used throughout the report were taken from a variety of sources. Parents provided information on the children's race/ethnicity. Because of the small number of American Indian or Alaska Native and Asian children in the study, data for those subgroups were considered unreliable and not included in the analyses of race/ethnicity. A three-group race/ethnicity variable was used with the following definitions:

- Hispanic – children who were Hispanic and of any race;
- Black – children who were Black or African American only and not Hispanic; and
- White – children who were White only and not Hispanic.

Children's primary disability category was obtained from their teachers or service providers; however, in some cases, this information was obtained from the children's parents. Because of the small sample sizes for some disability categories, a "low incidence" category was created and included: deaf/blindness, deafness, hearing impairment, traumatic brain injury, visual impairment, and other disabilities identified by parents (e.g., comprehension problems, hand-eye coordination).

Chi-squares and analysis of variance were used to test for statistically significant differences across subgroups defined by the four independent variables. Because of the large number of comparisons, it is important to note that a certain percentage of the statistically significant differences could be due to chance. Higher-level analyses, such as factor analysis (for data reduction), linear and logistic regressions, and hierarchical linear modeling, will be conducted in years two through six of the project. These analyses will be required to address the fifth study question – Which child, service, and program characteristics are associated with children's performance over time on assessments of academic and adaptive skills? Westat will build a series of multivariate regression models using the assessment data as the outcome variables.

In all analyses, if the number of cases in a cell dropped below 30, data were suppressed, and a footnote was added to indicate that "Reporting standards were not met." This convention was used to avoid presenting estimates that were unreliable.

For a complete description of PEELS Wave 1 study methods, see Lee et al. 2004.

Chapter 3: Characteristics of Children and Their Families

Elaine Carlson, Amy Shimshak, and Harriotte Heinzen

We know from previous research that children with disabilities differ in some ways from typically developing children. They are more likely to be male and to be from low-income households (Hebbeler et al. 2001; Marder & Cox 1991; Wagner & Blackorby 2002). Racial minorities are disproportionately represented within some disability groups (National Research Council 2002). Preschoolers with disabilities also differ from school-age children with disabilities, at least in the type of disabilities identified and the behaviors they exhibit (Wagner & Blackorby 2002).

Further research suggests that individual and household characteristics may be related to child development and achievement. For example, Yeung, Linver, and Brooks-Gunn (2002) found that higher levels of maternal education and cognitive ability were correlated with better physical environments and more stimulating experiences for children. These benefits were associated with children's educational achievement.

This chapter describes the preliminary results from PEELS on the characteristics of children with disabilities ages 3–5 and their families. It includes information primarily on demographics but also describes their disabilities and birth history.

Gender

PEELS found that preschoolers with disabilities were disproportionately male, 70 percent versus 30 percent female. The gender pattern of preschoolers with disabilities was not specific to particular racial/ethnic groups or disability categories. The disproportion documented in PEELS is consistent with studies of infants and toddlers in early intervention programs and older children in special education programs (Hebbeler et al. 2001; Marder and Cox 1991; Wagner and Blackorby 2002).

Race/Ethnicity

Although disproportionate representation of specific racial/ethnic groups in special education is documented in the research literature (National Research Council 2002), the patterns for preschoolers with disabilities are different from the patterns for younger children and older children with disabilities. PEELS data indicated that 67 percent of children with disabilities ages 3–5 were White, 22 percent were Hispanic, and 11 percent were Black. This compares with general population figures for children ages 3-5 of 58 percent White, 20 percent Hispanic, and 15 percent Black (U.S. Census Bureau 2004a), suggesting no overrepresentation of Black or Hispanic children overall among young children with disabilities (see figure 1).

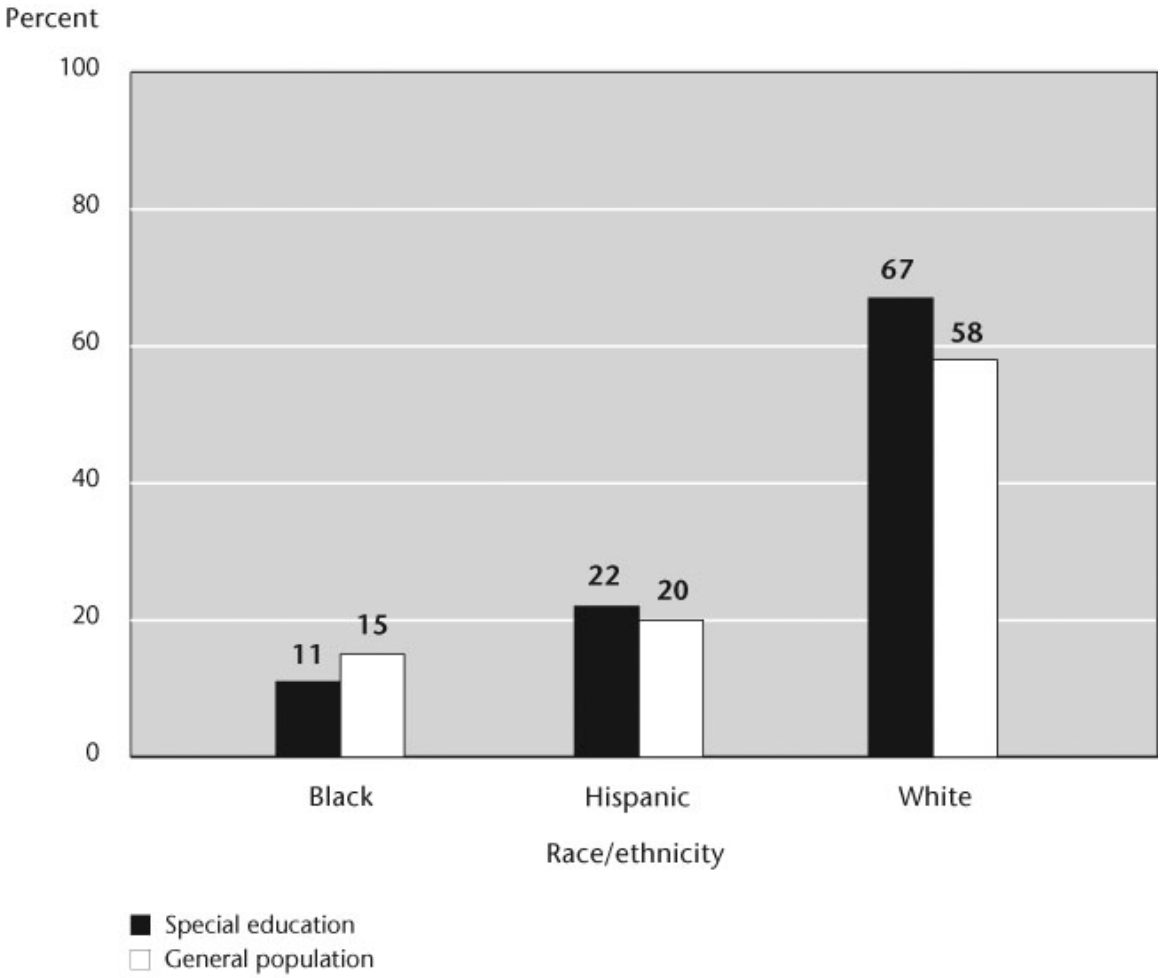
The racial/ethnic composition of preschoolers with disabilities was slightly different from that recently reported for elementary and middle school students with disabilities. For example, Marder and Wagner (2002) reported that 63 percent of elementary and middle school students with disabilities were White, 14 percent were Hispanic, and 19 percent were Black. Differences across sources may reflect recent increases in the Hispanic population overall as well as in special education programs.

In contrast with data from PEELS, findings from the National Early Intervention Longitudinal Study (NEILS) indicated that among infants and toddlers (birth to age 3) with disabilities, Black children were overrepresented (21% of infants and toddlers with disabilities versus 14% in the general population), and White children were underrepresented (53% versus 61%) (Hebbeler, Spiker, Mallik, Scarborough, and Simeonsson 2003).

Household Income

The federal poverty level is about $20,000 or less for a family of four. In the general population, about 20 percent of families with young children live in households with annual incomes under $20,000 (U.S. Census Bureau 2004b). More than one-quarter (27%) of preschoolers with disabilities lived in households with incomes of less than $20,000. As shown in table 3, 50 percent of Black preschoolers and

Figure 1. Percentage of children with disabilities ages 3–5 and general population of children ages 3–5, by race/ethnicity



NOTE: These data are preliminary. Final Wave 1 data will be available in fall 2005.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005); and U.S. Department of Commerce, Bureau of the Census, "Current Population Survey," 2004.

41 percent of Hispanic preschoolers lived in households earning $20,000 or less per year. The percentage for White preschoolers was 19 percent. The overall relationship between race and income was significant.

Table 3. Percentage of children with disabilities ages 3–5 in various household income groups, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
$20,000 or less	27.2	49.8	40.8	19.0
$20,001 to $30,000	16.3	20.8	19.9	14.4
$30,001 to $40,000	11.8	10.8	10.8	12.4
$40,001 to $50,000	10.7	7.3	7.6	12.3
More than $50,000	34.0	11.3	21.0	42.1

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (June 2005).

Parents' Level of Education

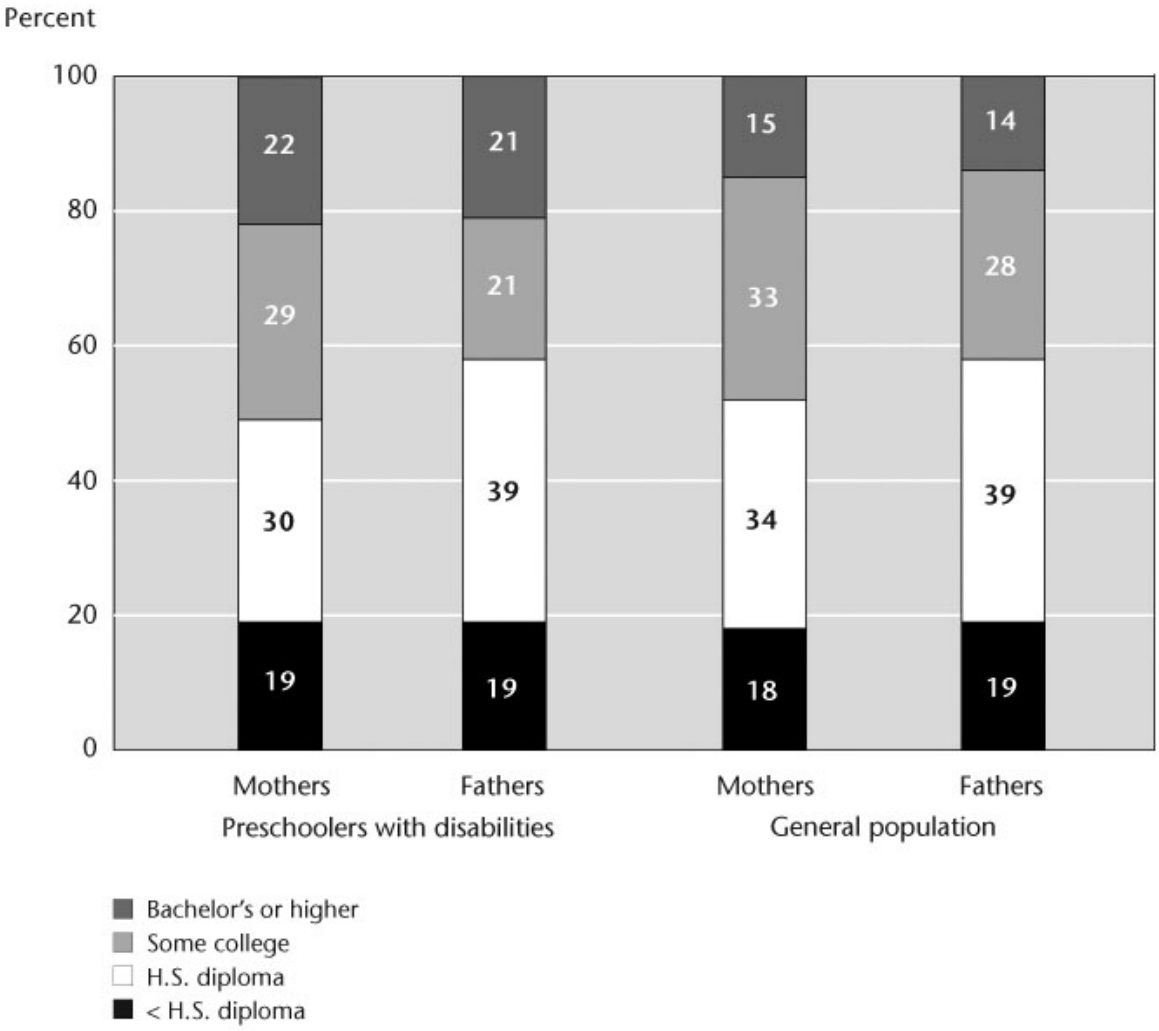
In PEELS, preschoolers with disabilities had parents with educational attainments similar to those parents of children under 18 in the general population.[7] Among fathers of preschoolers with disabilities, 19 percent had less than a high school diploma, 39 percent had a high school diploma or GED, 21 percent had some college, and 21 percent had a 4-year college degree of higher. Among mothers of preschoolers with disabilities, 19 percent had less than a high school diploma, 31 percent had a high school diploma or GED, 29 percent had some college, and 22 percent had a 4-year college degree or higher (see figure 2).

Household Composition

In the general population, 69 percent of children ages 3–5 live with two parents, and 27 percent live with one biological parent (U.S. Census Bureau 2004a). These percentages are very similar to results from PEELS, which indicate that two-thirds of children with disabilities ages 3–5 (67%) lived with both biological parents, and another 5 percent lived with one biological parent and his/her spouse or partner. Twenty-one percent lived with one biological parent only. Household composition varied significantly by race/ethnicity (see table 4). While 73 percent of White children with disabilities lived with both biological parents, that figure was 30 percent for Black children.

[7] No similar data were available for parents of children ages 3-5 in the general population.

Figure 2. Percentage of children ages 3–5 in the general population and special education whose parents had various levels of educational attainment



NOTE: These data are preliminary. Final Wave 1 data will be available in fall 2005.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005); and U.S. Department of Commerce, Bureau of the Census, "Current Population Survey," 2004.

Household composition also varied by income level. Of those children with disabilities in the highest income group, 85 percent lived with both biological parents, compared with 38 percent of those in the lowest income group (see figure 3).

Table 4. Percentage of children with disabilities ages 3–5 who lived with different types of parents/guardians, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Biological parents	66.5	30.1	65.3	72.5
Biological mother or father only	20.6	54.4	23.5	14.9
Biological mother or father and other mother or father	5.4	4.6	5.1	5.9
Adoptive parent(s)	3.7	4.6	5.1	5.9
Other (e.g., with grandparents)	3.8	6.3	2.7	3.6

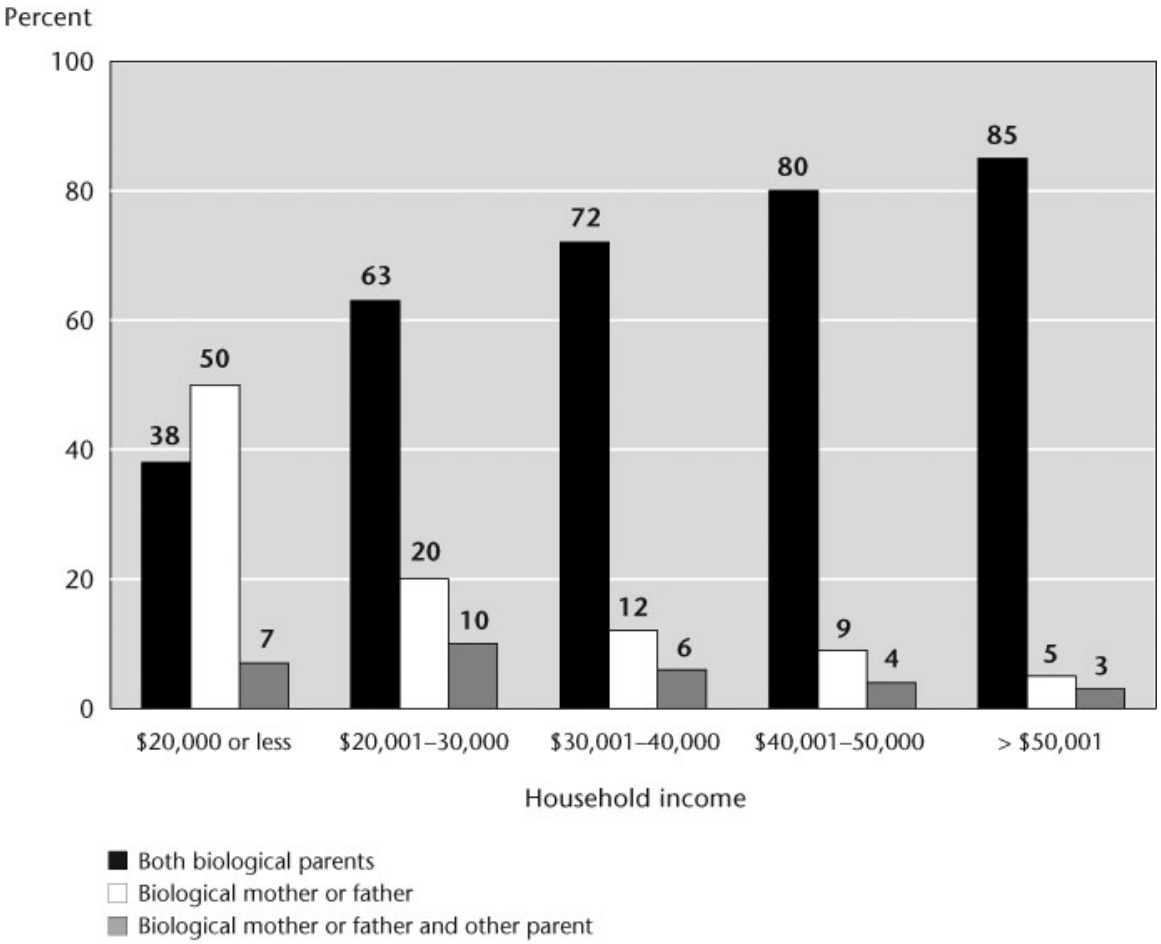
NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (June 2005).

Disability

In PEELS, early childhood teachers were asked to report children's primary disability using the 14 federal disability categories specified in P.L. 108-446, but separating the category for mental retardation into mild and moderate/severe. Developmental delay was also a response choice—an optional federal disability category for children from birth to age 9 (or a subset of that age group) used by 44 states in 2003 (Danaher, Kraus, Armijo, & Hipps 2003). In PEELS, nearly half of preschoolers with disabilities (46%) were identified as having a speech or language impairment as their primary disability, and 28 percent were identified as having a developmental delay as primary. Fewer than 10 percent of children with disabilities were identified as having each of other disabilities. Autism was the third most common disability; seven percent of preschoolers with disabilities were identified as having autism. In comparison, children and youth with disabilities ages 6–21 are most commonly identified as having a learning disability (49%), a speech or language impairment (19%), or mental retardation (10%) as their primary identified disability (US DOE 2005).

As shown in table 5, the percentage of preschool-age children identified as having a speech or language impairment as their primary disability varied by race/ethnicity. About half of White preschoolers with disabilities (51%) were identified as having a speech or language impairment, whereas 42 percent of Hispanic children and only 27 percent of Black children were identified as having a speech or language impairment as their primary disability.

Figure 3. Percentage of children with disabilities ages 3–5 who lived with different types of parents/guardians, by household income



NOTE: These data are preliminary. Final Wave 1 data will be available in fall 2005.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

The percentage of children identified as having a developmental delay as their primary disability varied by age cohort (see table 6). Of the children in the youngest cohort (Cohort A), 37 percent were identified as having a developmental delay, compared with 29 percent in Cohort B and 21 percent in Cohort C. For young children, in particular, disability identification may change as professionals gain a better understanding of the difficulties a child is having and the specific nature of the developmental delay. In future waves of PEELS, we will be able to track changes in disability identification.

Table 5. Percentage of preschoolers and kindergarteners ages 3–5 with various primary disabilities, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Autism	6.8	9.1	8.5	5.9
Deaf/blindness	‡	‡	‡	‡
Deafness	‡	‡	‡	‡
Developmental delay	27.8	42.2	22.1	26.8
Emotional disturbance/behavior disorder	1.2	‡	‡	1.2
Hearing impairment	0.6	‡	‡	‡
Learning disability	2.4	6.1	3.3	1.9
Mild mental retardation	1.5	‡	‡	1.4
Moderate/severe mental retardation	2.9	‡	5.3	1.7
Multiple disabilities	1.6	‡	‡	1.3
Orthopedic impairment	2.2	‡	‡	1.8
Other health impairment	2.9	‡	‡	3.3
Speech or language impairment*	46.4	27.4	42.2	50.8
Traumatic brain injury	‡	‡	‡	‡
Visual impairment/blindness	‡	‡	‡	‡
Other	2.6	‡	‡	2.3

‡ Reporting standards not met.
* $p < .05$.
NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

Many children who receive special education services are identified as having multiple disabilities. Among preschoolers with disabilities, 75 percent were identified as having a speech or language impairment either as their primary or secondary disability. Thirty-seven percent were identified as having a developmental delay, either as their primary or secondary disability. Even when taking into account secondary and tertiary disabilities, fewer than 10 percent of children were identified as having other disabilities (e.g., mental retardation, learning disabilities, or emotional disturbance); 8 percent were identified as having autism as their primary or secondary disability.

Early Childhood Development

Concerns about development. For some children, disabilities are apparent at birth or even during pregnancy. For others, delays emerge or are identified later, when children face new

Table 6. Percentage of preschoolers and kindergarteners ages 3–5 with various primary disabilities, by age cohort: School year 2003–04

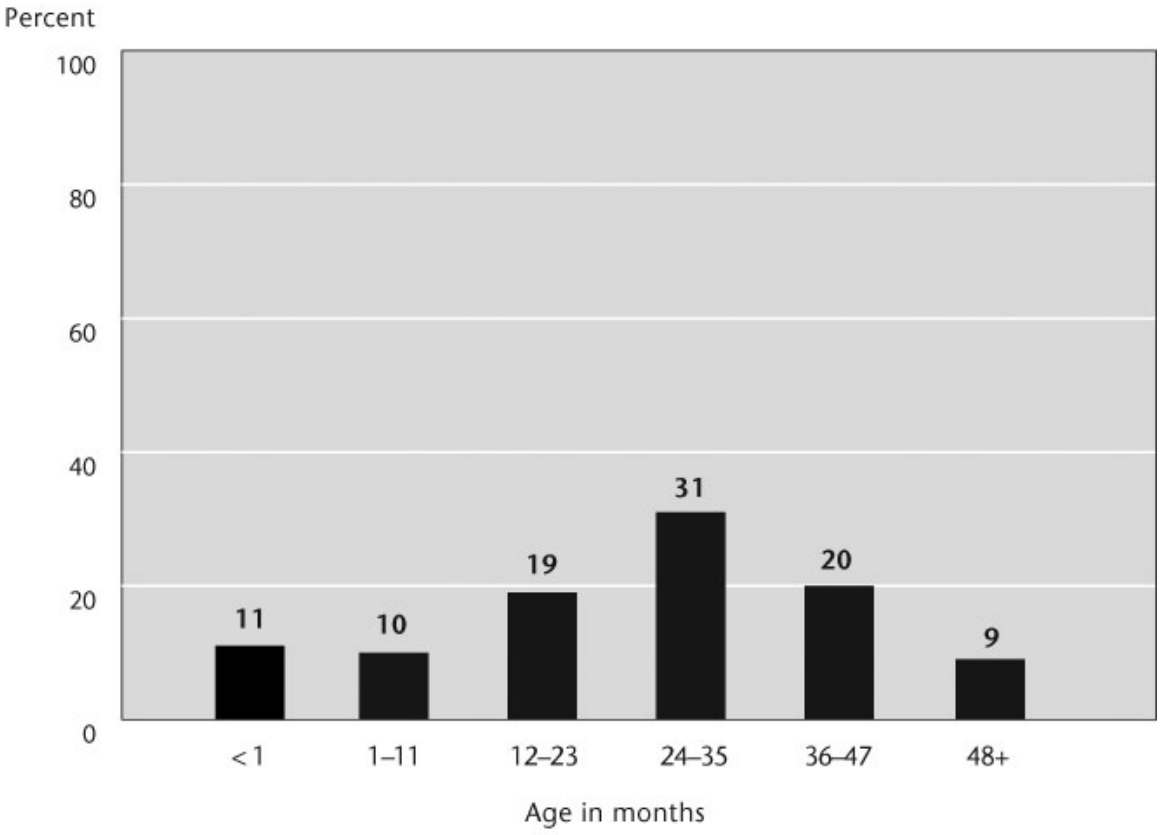
	Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
Autism	6.8	7.8	7.6	5.4
Deaf/blindness	‡	‡	‡	‡
Deafness	‡	‡	‡	‡
Developmental delay	27.8	36.5	29.3	21.4
Emotional disturbance/behavior disorder	1.3	‡	1.0	1.4
Hearing impairment	0.6	‡	‡	‡
Learning disability	2.4	‡	1.0	4.8
Mild mental retardation	1.5	1.5	‡	1.7
Moderate/severe mental retardation	2.9	1.4	2.7	3.8
Multiple disabilities	1.6	‡	‡	‡
Orthopedic impairment	2.2	‡	3.2	‡
Other health impairment	2.9	2.5	2.9	3.0
Speech or language impairment*	46.4	42.3	44.9	50.2
Traumatic brain injury	‡	‡	‡	‡
Visual impairment/blindness	‡	‡	‡	‡
Other	2.6	2.1	3.4	2.1

‡ Reporting standards not met.
* $p < .05$.
NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

developmental milestones (see figure 4). For 11 percent of preschoolers with disabilities, concerns about health or development arose during pregnancy or within the first month after birth. For another 10 percent, concerns arose in the first year. The largest percentage of preschoolers with disabilities, 31 percent, had concerns raised about their health or development between the ages of 24 and 35 months.

Prematurity. Both prematurity and birth weight have long been considered risk factors for many disabilities and developmental delays—the earlier the child is born and the lower the birth weight, the greater the risk of disabilities and developmental delay (Hack et al. 2002; Wood et al. 2000). PEELS found that 24 percent of preschoolers with disabilities were born three or more weeks prematurely (see table 7), twice the rate of children born preterm in the general population (12%) (National Center for Health Statistics 2002). However, it is considerably lower than the percentage of premature infants and toddlers entering early intervention programs (31%) (Spiker et al. 2004).

Figure 4. Percentage of children with disabilities ages 3–5 who were in different age groups when someone first expressed concern about their health or development



NOTE: These data are preliminary. Final Wave 1 data will be available in fall 2005.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Children ages 3–5 identified as having an orthopedic impairment, a learning disability, an other health impairment, or a low-incidence disability[8] were significantly more likely to have been born three or more weeks early.

While Black and Hispanic children with disabilities were no more likely than White children with disabilities to be born premature, those who were premature were born significantly earlier than White children who were premature (see table 8). White premature children with disabilities were born a mean

[8] Due to very small sample sizes, children with a visual impairment, hearing impairment, deaf-blindness, or traumatic brain injury were combined into a low-incidence disability category.

Table 7. Percentage of children with disabilities ages 3–5 born three or more weeks prematurely, by disability category (PL: 108-446): School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Yes	23.8	23.7	28.6	‡	32.4	27.0	41.1	30.4	18.2	45.5
No	76.2	76.3	71.4	‡	67.6	73.0	58.9	69.6	81.8	54.5

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Table 8. Mean number of weeks premature for children with disabilities ages 3-5 born three or more weeks prematurely, by race/ethnicity: School year 2003–04

Total	Black	Hispanic	White
6.5	8.9	7.3	5.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

of 5.6 (*S.E.* = 0.3) weeks early compared with Black children, at a mean of 8.9 (*S.E.* = 1.0) weeks early, and Hispanic children, at a mean of 7.3 (*S.E.* = 0.5) weeks early. Median weeks premature were considerably lower than the means for all racial/ethnic groups (*Mdn* = 7.3, 5.6, and 3.9, respectively, for Whites, Blacks, and Hispanics), reflecting the affects of those outliers born extremely premature.

Of the children born three or more weeks early, children identified as having a low-incidence disability (*M* = 8.8 weeks, *S.E.* = 1.5) and those identified as having an orthopedic impairment (*M* = 8.7 weeks, *S.E.* = 1.5) were born significantly earlier than children identified as having a speech or language impairment (*M* = 5.1 weeks, *S.E.* = 0.3) (see table 9).

Birth weight. The mean birth weight for preschoolers with disabilities was 110.7 ounces (6.9 pounds) (*S.E.* = 1.4). The median[9] birth weight was 114.5 ounces (7.2 pounds) (*S.E.* = 1.1), which compares to a median of 118.0 ounces (7.4 pounds) for children in the general population (U.S. Census

[9] Medians are reported here, because means for the general population were not available.

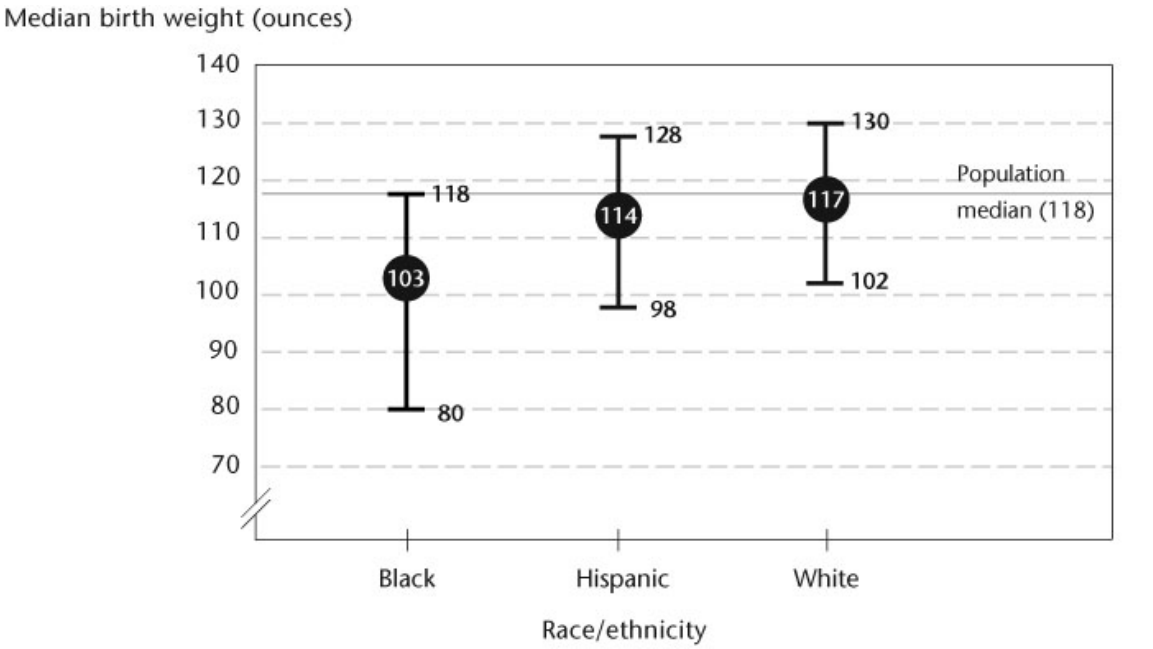
Table 9. Mean number of weeks premature for children with disabilities ages 3-5 born three or more weeks prematurely, by disability category: School year 2003–04

Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
6.5	5.7	7.2	‡	6.9	7.5	8.7	6.9	5.1	8.8

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Bureau 2002). Children under 2,500 grams or 5.5 pounds are typically considered low birth weight. Black children with disabilities had significantly lower birth weights (*M* = 93.9 ounces, *S.E.* = 4.3; *Mdn* = 102.9 ounces, *S.E.* = 4.0) than Hispanic (*M* = 109.6 ounces, *S.E.* = 2.0, *Mdn* = 114.3 ounces, *S.E.* = 1.7) and White children with disabilities (*M* = 113.9 ounces, *S.E.* = 1.0; *Mdn* = 116.6 ounces, *S.E.* = 0.8) (see figure 5).

Figure 5. Median birth weight and interquartile ranges (in ounces) for children with disabilities ages 3–5, by race/ethnicity: School year 2003–04



NOTE: These data are preliminary. Final Wave 1 data will be available in fall 2005.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005); and U.S. Department of Commerce, Bureau of the Census, Statistical Abstract of the United States, 2004-05.

Summary

The preliminary data presented in this report indicate that in many ways, children with disabilities ages 3–5 were just like other young children in the United States. They had roughly the same racial/ethnic mix, similar levels of parental education, and similar household compositions. In other ways, these children were different—both from their same-age peers and from other children with disabilities. They were more likely than their same-age peers to have been born three or more weeks early, and their lower than average birth weight was consistent with this tendency toward prematurity. Preschool children with disabilities were disproportionately male.

Children with disabilities ages 3–5 were different from older children with disabilities in the primary disability for which they were identified. About half of students ages 6–21 with disabilities are identified as having a learning disability, and sizable proportions (at least 10%) are identified as having a speech or language impairment or mental retardation (US DOE 2005). In contrast, nearly 75 percent of children with disabilities ages 3–5 were identified as having either a speech or language impairment or a developmental delay.

Chapter 4: Characteristics of Educational Services and Providers

Joy Markowitz, Jeff Strohl, and Sheri Klein

In summarizing the results of several studies of nondisabled preschoolers with disabilities, Ramey and Ramey (2002) found that "the magnitude of the effects produced by various preschool interventions is systematically related to characteristics of the preschool programs themselves." Research also suggests that the association between the quality of interventions and child-level outcomes are independent of other factors, such as socioeconomic status, maternal education, and family structure (Phillips, McCartney, & Scarr 1987; Schlieker, White, & Jacobs 1991; Whitebook, Howes, & Phillips 1989). This chapter describes the educational programs serving preschoolers with disabilities, including the types of services they received and the qualifications of service providers. The data in this chapter were taken from PEELS Wave 1 parent interview and teacher questionnaires. Because the data are preliminary, they may be modified.

Age When Services Began

PEELS data indicated that 38 percent of children with disabilities ages 3–5 received early intervention services under Part C of IDEA. However, on average, preschoolers with disabilities were nearly age 3 when they started receiving special education or therapy services from a professional (*M* = 31.5 months). The distribution for some of the disability groups was highly skewed, so we have included medians as well as means in this section. Children identified as having an orthopedic impairment (*M* = 12.9, *S.E.* = 2.1, *Mdn* = 8.3, *S.E.* = 6.0), mental retardation (*M* = 18.5, *S.E.* = 2.6, *Mdn* = 9.3, *S.E.* = 2.0), or an other health impairment (*M* = 18.4, *S.E.* = 3.1, *Mdn* = 12.4, *S.E.* = 7.5) typically started receiving services at younger ages than children identified as having other disabilities (AU, *M* = 29.6, *S.E.* = 2.1, *Mdn* = 29.1, *S.E.* = 5.0; DD, *M* = 28.1, *S.E.* = 0.9, *Mdn* = 27.2, *S.E.* = 4.2; ED, *M* = 36.7, *S.E.* = 1.8, *Mdn* = 31.6, *S.E.* = 1.7; LD, *M* = 36.1, *S.E.* = 2.6, *Mdn* = 34.7, *S.E.* = 1.8; SLI, *M* = 36.0,

S.E. = 0.5, *Mdn* = 35.5, *S.E.* = 0.1; LI, *M* = 23.0, *S.E.* = 2.2, *Mdn* = 22.2, *S.E.* = 4.6) (see figure 6). For example, children identified as having an orthopedic impairment began receiving special services at a mean age of 12.9 months (*S.E.* = 2.1; *Mdn* = 8.3, *S.E.* = 6.0), compared with children identified as having a speech or language impairment, who began at a mean age of 36.0 months (*S.E.* = 0.5; *Mdn* = 35.5; *S.E.* = 0.1). Delays in speech and language skills often become more apparent after the age of 2, when typically developing children begin to use words and simple sentences.

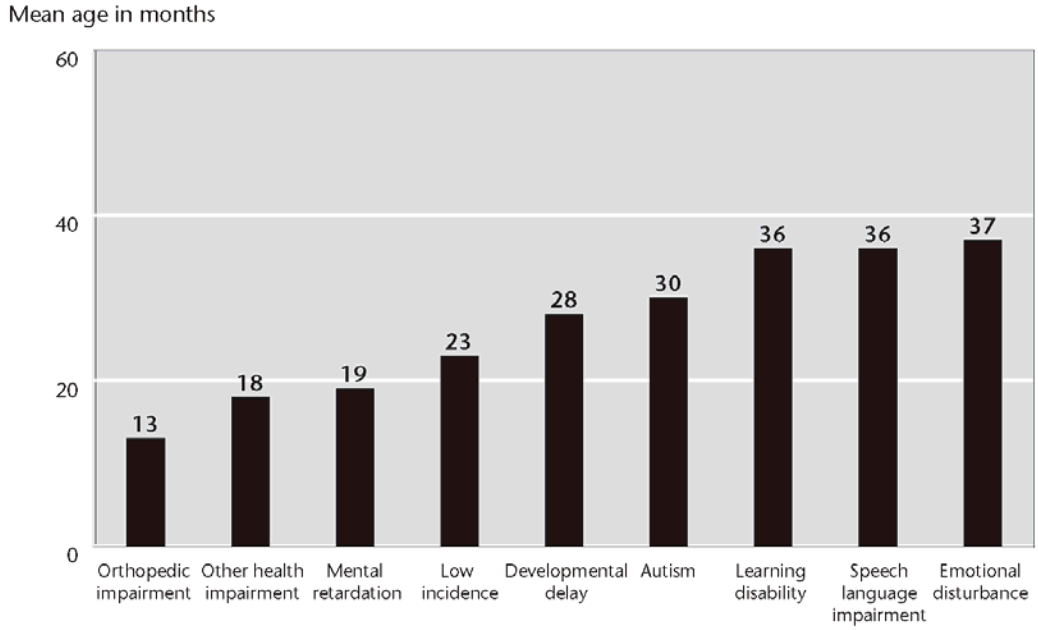
Types of Services Received

Parents of children ages 3–5 with disabilities who received special education services were asked which services their children received during the two months prior to their parent interview. Overall, 93 percent of children received speech or language therapy; 42 percent received special education services in school; 34 percent received occupational therapy; 21 percent received physical therapy; and 19 percent received tutoring for learning problems (see table 10). Almost 5 percent of children received other services through the public school system, such as respite care, behavior therapy, and vision services.

There was significant variation in services by race/ethnicity among children who received special education in school. Black children (59%) were more likely to receive special education in school than Hispanic or White children (47% and 3%, respectively), and Hispanic children were more likely than White children to receive such services (47% v. 36%). Black children were also significantly more likely than Hispanic or White children to receive tutoring for learning problems (35%, 22%, and 16%, respectively), and Hispanic children were more likely than White children to receive tutoring.

Some services also varied significantly by household income (see table 11). Children in households with incomes of $20,000 or less were more likely to receive special education in school (50%) and tutoring for learning problems (29%) compared with children in households with incomes of more than $50,000 (37% and 12%, respectively).

Figure 6. Mean age (in months) of children with disabilities ages 3–5 when they first started regularly receiving special education or therapy from a professional, by disability category: School year 2003–04



NOTE: These data are preliminary. Final Wave 1 data will be available in fall 2005.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Table 10. For children with disabilities ages 3–5 who received special education or related services through the public schools, the percentage who received various types of services, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Speech or language therapy	92.8	92.4	91.4	93.2
Occupational therapy	33.5	28.3	38.9	32.4
Physical therapy	20.9	25.1	25.6	19.1
Special education in school*	41.7	59.1	47.3	36.3
Tutoring for learning problems*	19.3	34.7	21.7	16.4
Other	4.6	‡	3.9	4.7

‡ Reporting standards not met.
* $p < .05$.
NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Table 11. For children with disabilities ages 3–5 who received special education or related services through the public schools, the percentage who received various types of services, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Speech or language therapy	92.8	93.0	91.2	91.6	93.9	93.4
Occupational therapy	33.5	31.8	29.4	33.3	33.4	37.0
Physical therapy	20.9	25.6	20.4	18.2	18.5	19.2
Special education in school*	41.7	49.5	42.5	43.7	33.4	37.1
Tutoring for learning problems*	19.3	28.5	23.5	17.7	14.0	12.3
Other	4.6	2.5	4.5	4.9	4.1	6.4

* $p < .05$.
NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

There was also significant service variation by disability (see table 12). Children identified as having autism (77%) were more likely than children with other disabilities to receive occupational therapy. Children identified as having autism (77%) or mental retardation (73%) were more likely than children with other disabilities to receive special education in school. Finally, children identified as having a learning disability (37%), an other health impairment (35%), or a developmental delay (31%) were more likely than other children with disabilities to receive tutoring for learning problems.

Addressing IEP Goals in Regular Education Classes

Children receive special education and related services in a variety of settings. To better understand how children with disabilities ages 3–5 were educated with their nondisabled peers, their teachers were asked about the ways in which the children's IEP goals and objectives were addressed within the regular education class. For 19 percent of children, this did not occur at all, either because they were not enrolled in a regular education class (5%) or their IEP goals were addressed elsewhere (14%) (see table 13). For those whose IEP goals were addressed in the regular class, the most common approach

Table 12. For children with disabilities ages 3–5 who received special education or related services through the public schools, the percentage who received various types of services, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Speech or language therapy	92.8	93.9	89.2	71.1	89.7	94.4	‡	80.7	98.4	83.4
Occupational therapy*	33.5	77.0	48.5	47.3	29.3	54.2	‡	62.1	12.1	55.7
Physical therapy	20.9	24.9	32.9	‡	19.2	51.1	‡	53.7	6.0	39.6
Special education in school*	41.7	77.0	61.0	55.6	64.1	72.7	‡	61.0	20.8	60.5
Tutoring for learning problems*	19.3	21.7	30.7	‡	36.6	23.0	‡	35.0	10.6	30.1

‡ Reporting standards not met.
* $p < .05$.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Table 13. Percentage of preschoolers and kindergarteners with disabilities ages 3–5 whose IEP goals and objectives were addressed in regular classes using various service delivery models: School year 2003–04

	Total
Not applicable – the child is not in a regular education classroom.	5.0
Not applicable – this child's IEP goals are not addressed in the regular education classroom; they are addressed elsewhere.	14.4
The special education teacher or aide works individually with the child on special tasks.	10.5
The regular education teacher or aide works individually with the child on special tasks.	9.8
Related services personnel work individually with the child on special tasks.	12.4
Related services personnel work with the child in group activities.	39.3
The goals and objectives are embedded in common classroom activities.	8.5

NOTE: IEP = individualized education program.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Column percentages do not sum to 100 because respondents were asked to select one or more responses, as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

was for related services personnel to work with children in group activities (39%). For an additional 12 percent of children, related services personnel worked individually with them on special tasks within the regular classroom, and 11 percent of children worked individually with a special education teacher or aide on special tasks. For the remainder of the children, 10 percent worked individually with regular education teachers or aides, and 9 percent had their IEP goals embedded in common classroom activities.

Support for Social Interaction Among Children

To support social interactions among children, 89 percent of children's teachers reported providing structured play and task situations that required interactions between children with and without disabilities, 77 percent reported prompting and reinforcing children with disabilities for initiating and maintaining interactions with children without disabilities, and 76 percent reported prompting and reinforcing children without disabilities for initiating and maintaining interactions with children with disabilities. Much less common, teachers reported assigning children without disabilities to be "helpers" or "buddies" (39%), and assigning children without disabilities to a specific disability awareness program during group times (18%).

Parents of children with disabilities ages 3–5 were asked about time their children spent with typically developing peers. The response options were *too much time*, *right amount of time*, or *not enough time* with typically developing children. Overall, 86 percent of parents thought their children spent the *right amount of time* with typically developing children, but 13 percent said *not enough time*. Only about 1 percent of parents said their children spent *too much time* with typically developing peers.

Qualifications and Experience of Children's Service Providers

Information on teacher characteristics is critical for recruitment, professional development, and retention, as research suggests that certain teacher characteristics are associated with improved student achievement (Rivkin, Hanushek, and Kain 2000). This section presents information on the qualifications

of teachers or service providers serving preschoolers with disabilities.[10] It is important to note that these questions were asked only for children not yet in kindergarten, so they pertain only to early childhood personnel. Also, the questionnaires were not necessarily completed by a special educator. Rather, if children attended preschool programs, the preschool teachers were asked to complete the questionnaires, regardless of their role in providing special education services to the children.

Educational Degree. More than half of preschoolers with disabilities (55%) had a teacher whose highest degree was at the graduate level (master's or doctorate), and for 38 percent, the highest was a bachelor's degree (see table 14). Only 3 percent of children's teachers did not have at least an associate's degree. These data compare favorably with findings from an earlier study in which 49 percent of general education teachers had a graduate degree (Westat 2002). The earlier study found that 52 percent of preschool special education teachers and 58 percent of all special education teachers had graduate degrees, similar to the PEELS finding (Westat 2002). PEELS findings did not vary by race/ethnicity of the child or age cohort.

Area of Credentials. Early childhood teachers were asked about a variety of disciplines in which they might hold a professional license, credential, or certificate (see table 15). Teachers could enter up to four areas. Thirty-six percent had a license in special education, 31 percent in early childhood special education, 31 percent in elementary/secondary education, and 28 percent in early childhood education. Less than 20 percent held licenses, credentials, or certificates in other areas. Although these findings did not vary by age cohort, there were some significant differences by race/ethnicity of child, household income, and disability of child. The percentage of White children (20%) that had teachers with speech or language pathology licenses was higher than for Black children (8%) (see table D-1 in Appendix D). Teachers of children from households with incomes of less than $20,000 were least likely to have credentials in speech or language pathology (11%), and teachers of children from households of more than $50,000 of income were the most likely (24%) (see table D-3 in Appendix D).

[10] In some cases, children received, for example, only speech services. In those cases, the speech pathologist was asked to provide information on the child and him or herself.

Table 14. Percentage of preschoolers with disabilities whose teachers completed various educational degrees: School year 2003–04

	Total
High school diploma or GED	2.9
Associate degree	4.9
Bachelor's degree	37.6
Graduate degree	54.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table 15. Percentage of preschoolers identified with disabilities whose teachers held credentials in various disciplines: School year 2003–04

	Total
Special education	35.8
Early childhood special education	31.3
Elementary/secondary education	30.7
Early childhood education	28.1
Speech or language pathology	17.1
Child development	7.3
Other	16.1

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006. Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Children identified as having an emotional disturbance or mental retardation (51% and 50%, respectively) were more likely than children identified as having a low-incidence disability or a speech or language impairment to have teachers with credentials in early childhood special education (29% and 21%, respectively). Children identified as having a developmental delay, an emotional disturbance, mental retardation, or autism (54%, 52%, 51%, and 51%, respectively) were most likely to have a teacher with a special education credential. Children identified as having a speech or language impairment or a low-incidence disability (25% and 23%, respectively) were least likely to have a teacher with a credential in special education (see table D-5 in Appendix D).

Teacher Reports of Adequacy of Education, Training, and Experience. Early childhood teachers were asked to rate the adequacy of their professional education, training, and experience using a

scale ranging from 0, *not at all prepared*, to 6, *extremely well prepared*. Teachers rated their adequacy in (a) working with children ages 3–5 with disabilities and (b) working with families of children ages 3–5 with disabilities. The mean rating for working with children was 5.0 (*S.E.* = 0.1), and for working with families it was 4.5 (*S.E.* = 0.1) These ratings did not vary by race/ethnicity or disability of the child, household income, or age cohort.

Number of Years of Experience in Specific Areas. Many studies document an association between teachers' years of experience and children's academic achievement; although it is not clear if this relationship is causal (Rice 2003). Early childhood teachers were asked the number of years they had been working with (1) children ages 3–5, (2) children with disabilities, and (3) children ages 3–5 with disabilities. The mean number of years was 10.3 (S.E. = 0.3), 11.6 (*S.E.* = 0.5) and 9.0 (*S.E.* = 0.4), respectively. These means were similar when examined by race/ethnicity and disability of child, household income, and age cohort.

Summary

The preliminary data in this report provide information on characteristics of educational services and providers. Many children with disabilities ages 3–5 did not begin receiving early intervention or special education services until they were nearly 3. The children who began receiving services later were most likely to be those identified as having a speech or language impairment and least likely to be those identified as having an orthopedic impairment, mental retardation, or an other health impairment. Speech or language therapy was by far the most common service, with 93 percent of children with disabilities ages 3–5 receiving it.

The teachers of preschoolers with disabilities reported using various practices to support social interaction between children with and without disabilities. For example, more than three-fourths of teachers reported prompting and reinforcing children with disabilities for initiating and maintaining interactions with children without disabilities, prompting and reinforcing children without disabilities for initiating and maintaining interactions with children with disabilities, and providing structured play and

task situations that required interaction between children with and without disabilities. Overall, 86 percent of parents thought their preschoolers with disabilities spent the right amount of time with typically developing children.

Slightly more than half of preschoolers with disabilities had teachers with graduate degrees, similar to the credentials of general educators. These same teachers rated themselves as well prepared to work with children ages 3–5 with disabilities and their families. However, because PEELS relies on self-report, we cannot speak to teachers' actual level of preparedness. As additional PEELS data are collected, the extent to which service provider characteristics are associated with differential growth in children's knowledge, skills, and behavior will be explored.

Chapter 5: Transitions from Early Intervention to Preschool and Preschool to Elementary School

Elaine Carlson and Amy Shimshak

For young children with disabilities and their families, transitions occur often. Moving from early intervention programs for infants and toddlers with disabilities to preschool programs, and from preschool programs to elementary school programs, requires adjustments on the part of parents, children, and service providers. For some children, these transition points may bring changes in eligibility, program interruption, or modifications to services. This chapter presents findings, based on preliminary data, related to transitions from early intervention (IDEA Part C services) to preschool, and from preschool to elementary school. Included is information about the time between Part C and preschool services, strategies to support transition, service provider communication, and policies and practices on transition.

Gap Between Part C and Preschool Services

As mentioned earlier, 38 percent of children with disabilities ages 3–5 received early intervention services under IDEA Part C. Of those children, nearly one-third (30%) had a gap between the end of Part C services and the beginning of preschool services. This gap in services was a mean of 4.6 months (*S.E.* = 0.5). The length of the gap in services did not vary significantly by race/ethnicity, income, or age cohort. One-third of all parents (32%) selected the response options s*ome* or *a lot* when asked to report on the level of effort it took them to find out where to get preschool special education services through the school system.

Strategies to Support Transition

Teachers of children with disabilities ages 3–5 reported that they employ a wide variety of strategies to help children transition into new schools, programs, or classrooms (see table 16). More than 75 percent of children who moved from one program to another in the preceding year, including moves

Table 16. Percentage of preschoolers and kindergarteners with disabilities ages 3–5 whose teachers or programs used various strategies to help students transition into new schools, programs, or classrooms, by age cohort: School year 2003–04

	Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
Received children's previous records*	70.0	65.5	58.2	79.3
Sending programs provided information about children*	69.7	66.3	60.4	76.8
Provided parents with written information	80.7	84.3	83.0	76.4
Called the children's parents*	77.1	86.6	88.5	61.7
Parents/guardians encouraged to meet new staff.*	90.8	97.2	94.3	84.1
Children's families visited the classroom or school.	81.7	84.0	85.6	78.0
Visited children's home*	32.3	48.9	39.4	17.1
Visited children's previous settings	32.2	27.3	29.0	37.2
Met with staff of sending programs	45.9	48.3	41.8	46.5
Participated in children's IEP development*	78.4	90.3	81.9	68.1
Developed child-specific preparatory strategies*	67.0	78.4	67.6	58.6
Other	2.8	4.1	3.2	‡

‡ Reporting standards not met.
* $p < .05$.
NOTE: IEP = individualized education program.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

from Part C to Part B, preschool to kindergarten, or one preschool program to another, had teachers who encouraged parents or guardians to meet with staff before the children entered the new school, program, or classroom; had children and families visit the new school, program, or classroom; provided parents with written information; had new staff members participate in children's individualized education program (IEP) development; or called the children's parents. Other strategies used by at least two-thirds of the children's teachers included receiving children's previous records, receiving other information about the children from the sending programs, and developing child-specific strategies for transition. Less common strategies included someone from the new program visiting the old settings, meeting with staff from the sending programs, and visiting the children's homes.

Although strategies used by teachers were consistent across racial/ethnic groups and household income groups, there was variation across age cohorts for several strategies. For example, more teachers

of children in Cohort A than in Cohort B received previous records, and more teachers of children in Cohort A than in Cohort B encouraged parents or guardians to meet new staff.

Adequacy of Transition Support

Teachers of children with disabilities ages 3–5 were asked about the adequacy of the support provided to children and families transitioning into new classes or programs (see table 17). The majority of children's teachers (57%) reported that children and their families had *extremely adequate* transition support. Another 26 percent reported that transition support was *somewhat adequate*. Only 7 percent felt support was *not very adequate*. For 9 percent of children and families, teachers reported that transition planning and support were *not needed*.

Ease of Children's Transitions Into Kindergarten

Teachers of kindergarteners with disabilities were asked to describe the transition to kindergarten of children in their classes using four response options, from *very easy* to *very difficult*. Table 18 shows more than half the kindergarteners (54%) had *very easy* transitions, and nearly one-third (31%) had *somewhat easy* transitions. Fifteen percent had *somewhat* (9%) or *very* (6%) *difficult* transitions.

Table 17. Percentage of preschoolers and kindergarteners with disabilities ages 3–5 whose teachers characterized transition support for children and their families in various ways: School year 2003–04

	Total
Extremely adequate	57.2
Somewhat adequate	26.2
Not very adequate	7.3
Transition planning and support were not needed for this child or family	9.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table 18. Percentage of kindergarteners with disabilities whose teachers characterized the children's transition into kindergarten classes in various ways: School year 2003–04

	Total
Very easy	54.2
Somewhat easy	31.3
Somewhat difficult	8.7
Very difficult	5.8

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

Communication With Child's Previous Service Provider(s)

The teachers of kindergarteners with disabilities were asked to what extent they had communicated with the person(s) who provided early childhood special education services to the children in the previous year. More than two-thirds had communicated with providers—51 percent *somewhat* and 15 percent *extensively*. Slightly more than one-third (34%) had not communicated at all with previous providers.

State and Local Administrators' Perspective on Transition

State preschool special education coordinators[11] and local education agency (LEA) administrators were asked to select three areas related to the provision of preschool special education that their state or LEA had been working hardest to improve during the last two years. The area most often selected by preschool coordinators was *transition from early intervention* (51%). Many LEA administrators also selected that option (38%), but slightly more administrators (39%) chose *transition to kindergarten* (transition to kindergarten was not an option for preschool coordinators). The area selected most often by preschool coordinators as one in which their states were doing a good job (i.e., closest to best practice) was *transition from early intervention* (45%).

[11] State preschool special education coordinators are often called 619 coordinators, referencing Section 619 of the IDEA that addresses preschool special education.

Summary

Using the preliminary data available, transitions for preschoolers with disabilities were examined. For some young children with disabilities, transition points brought program interruption. Nearly one-third had a gap between the end of Part C services and the beginning of preschool services, averaging five months. In the future, preschool children may have different experiences than those documented by PEELS because the 2004 amendments to the Individuals with Disabilities Education Act (IDEA) provide new flexibility to states in serving children with disabilities ages 3–5. For children who are served under IDEA Part C and have an IFSP, states and localities may continue to serve them in Part C up to the age at which they are eligible for kindergarten entry. Continuity of service for children in the birth-to-five age group was recommended by the President's Commission on Excellence in Special Education. Moreover, the commission recommended that IDEA ensure a seamless system for infants, toddlers, children, and youth with disabilities, birth to 21 (U.S. Department of Education 2002).

When transitions required changing classrooms, programs, or schools teachers reported that they used a range of strategies to help children and their families. At the state and local levels, transitions were a primary focus. It is important to note, however, that the data currently available came largely from teachers. In future years, additional data will be available from PEELS that reflect the transition experiences of preschoolers with disabilities, for example, changes in the types and intensity of services children receive as they move from preschool to elementary school, and changes over time in parent's satisfaction with schooling.

Chapter 6: School-Related Readiness and Behavior

William Frey, Jarnee Riley, and Karen Schroll

Preschoolers with disabilities, by definition, are at risk for poor school performance. The Individuals with Disabilities Education Act (IDEA) guarantees their right to a free appropriate public education. Nonetheless, many of these children enter school with one or more disabling conditions that affect their educational performance and other possible risk factors such as poverty and low levels of maternal education (Hebbeler et al. 2001; Marder & Cox 1991; Wagner & Blackorby 2002).

Previous research finds a relationship between selected child and family characteristics and performance in reading and mathematics among young nondisabled children. Evidence exists for differences based on household income (Ackerman, Brown, & Izard 2004; Robinson, Weinberg, Redden, Ramey, & Ramey 1998; Yeung, Linver, & Brooks-Gunn 2002), gender (Coley 2002), mother's education (Burchinal, Peisner-Feinberg, Pianta, & Howes 2002; Campbell 1996; Luster & McAdoo 1996; Robinson et al. 1998), and race/ethnicity (Burchinal et al. 2002; Coley 2002; Robinson et al. 1998; Yeung et al. 2002), even after controlling for a variety of other child and family characteristics. For example, in a study of academic growth in young children, mother's education was a significant predictor of change in scores on the PPVT, Woodcock-Johnson III Letter-Word Identification subtest, and Woodcock-Johnson III Applied Problems subtest, after controlling for a number of variables (e.g., gender, race/ethnicity, and sociability) (Burchinal et al. 2002). In some models, race/ethnicity and gender were also significant, although less consistently. Similarly, in a study of elementary and middle school students with disabilities, Wagner and Blackorby (2004) reported that household income was significantly related to reading achievement, and gender was significantly related to mathematics achievement after controlling for many other predictors, including race/ethnicity and age.

Historically, special education programs designed for children and youth throughout the age range have addressed not only academic skills but also motor skills, social behavior, and functional skills. The PEELS assessment addresses four key areas of school-related readiness, including emerging literacy,

early math proficiency, social behavior, and motor performance. Each area provides important indicators of school readiness, as well as a gauge of future success in school. Results from assessments in the four key areas are discussed in this chapter, as are their association with selected demographic characteristics. The results for the remaining PEELS assessments (i.e., preLAS Simon Says, preLAS Art Show, Leiter-R Attention Sustained, and the test of Early Math Skills) are not included in this report. The ones included in this chapter are the ones most commonly used in the field for children in this age range. Data from the other assessments may be included in future reports.

The data in this chapter are preliminary. Final Wave 1 data will be available after new weights are developed.

For each assessment discussed, the results are presented in separate sections by age cohort, disability, gender, race/ethnicity, and household income. Within each section, we first discuss performance relative to the normal population mean and note subgroups that perform more than one standard deviation above or below the population mean. Then we discuss the results of significance tests, noting statistically significant differences between subgroups. These analyses are a first step in the process of identifying factors related to performance by exploring the relationships among selected demographic characteristics and scores on the various PEELS child assessments.

It is important to note that children from low-income households were significantly more likely than those from higher income households to be Black, with percentages ranging from 50 percent for children with incomes of $20,000 or less to 11 percent for those with household incomes of more than $50,000. This significant association between income and race should be kept in mind when interpreting results by household income or by race/ethnicity; because of the high correlation, it is often difficult to determine which factor or factors are at play. This correlation is also observed in data for the general U.S. population (U.S. Census Bureau, 2003). In the future, PEELS researchers will develop more complex models to explain variance in performance and growth for children with disabilities ages 3–5.

Emerging Literacy

In *Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature on Reading and its Implication for Reading Instruction* (NRP 2000), the National Reading Panel identified four keys to reading success. These are: development of phonemic awareness, fluency, vocabulary, and text comprehension. The PEELS assessment measures the beginning reading constructs of phonemic awareness, fluency, vocabulary, and text comprehension. These constructs are measured by either all data collection points of the study, or, for the construct of comprehension, during the later waves of PEELS assessment (i.e., Waves 2–5). The sections below describe the following assessments of emerging literacy conducted during Wave 1:

- Woodcock-Johnson III: Letter-Word Identification;
- Peabody Picture Vocabulary Test (PPVT); and
- ABAS-II Functional (Pre) Academics.

A brief description of each test is provided, including how the test was administered. Following each test description, the results are presented by age cohort, disability category, gender, race/ethnicity, and household income. While the descriptive results are presented within age cohort, significance tests were conducted on the total group, which included all three age cohorts.

Woodcock-Johnson III: Letter-Word Identification

The first test, Letter-Word Identification (Mather and Woodcock 2001), measures the child's word identification skills. The initial items (i.e., items 1–9) require the child to point to the specified letter from among several that appear in large type, and the remaining items (i.e., items 10 and beyond) require the child to pronounce words correctly. The child is not required to know the meaning of any word. Test items progress in difficulty from common to uncommon words in written English. Each item is given a score of 1 for a correct response and 0 for an incorrect response or no response. Administration of the test continues until the child either finishes all of the items or misses the last six consecutive items at the end of a test page.

The standard score scale used in the Woodcock-Johnson III: Letter-Word Identification is based on a mean of 100 and a standard deviation of 15. Overall, preschoolers with disabilities who participated in the PEELS direct assessment performed as well as their nondisabled peers—with an overall mean performance of 98.2 (*S.E.* = 0.8).

Scores by cohort. Children in all three cohorts performed close to the normal population mean of 100 and well within one standard deviation of the mean (i.e., 85 to 115) (see table 19). The mean performance of children in Cohort A (*M* = 100.8, *S.E.* = 1.4) was higher than that of children in Cohort C (*M* = 96.8, *S.E.* = 1.0), and the mean performance of children in Cohort B (*M* = 98.5, *S.E.* = 1.0) was higher than that of children in Cohort C.

***Scores by disability*.** The mean performance of preschoolers with disabilities on the Letter-Word Identification subtest across all disability categories fell within one standard deviation of the mean (i.e., 85 to 115) (see table 20). Preschoolers identified as having autism (*M* = 108.8, *S.E.* = 6.4) or a speech or language impairment (*M* = 100.1, *S.E.* = 0.8) scored above the population mean on the Letter-Word Identification subtest. Preschoolers identified as having mental retardation (*M* = 85.5, *S.E.* = 5.1) scored almost one standard deviation below the mean. The distribution of scores on Letter-Word Identification was positively skewed among children with mental retardation, whose median scores across all three cohorts were 4.7 to 8.2 points lower than the means (Cohort B *Mdn* = 72.0, Cohort C *Mdn* = 86.6), suggesting that scores for relatively few high-scoring children raised the mean for the entire subgroup. These systematic differences were not observed among other disability groups.

Significance tests were performed on the mean scores across disability categories. These tests indicated that the mean performance of children identified as having autism (*M* = 108.8, *S.E.* = 6.4) was significantly higher than that of children identified as having a developmental delay (*M* = 93.0, *S.E.* = 1.3), a learning disability (*M* = 93.2, *S.E.* = 3.1), mental retardation (*M* = 85.5, *S.E.* = 5.1), or an other health impairment (*M* = 98.2, *S.E.* = 4.6).

Table 19. Mean performance of children with disabilities ages 3-5 on Woodcock-Johnson III Letter-Word Identification, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
98.2	100.8	98.5	96.8

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Letter-Word Identification," previously unpublished tabulation (April 2005).

Table 20. Mean performance of children with disabilities ages 3-5 on Woodcock-Johnson III Letter-Word Identification, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	98.2	108.8	93.0	94.8	93.2	85.5	95.7	98.2	100.1	96.8
Cohort A (age 3)	100.8	121.4	95.2	‡	‡	‡	100.5	100.6	102.4	102.0
Cohort B (age 4)	98.5	114.5	93.6	‡	98.1	80.2	92.3	97.7	100.0	98.3
Cohort C (age 5)	96.8	99.3	90.7	88.8	90.1	93.0	‡	97.9	99.3	93.4

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Letter-Word Identification," previously unpublished tabulation (April 2005).

The mean performance of children identified as having a speech or language impairment (M = 100.1, $S.E$.= 0.8) was significantly higher than the mean performance of children identified as having a developmental delay (M = 93.0, $S.E.$ = 1.3), a learning disability (M = 93.2, $S.E.$ = 3.1), or mental retardation (M = 85.5, $S.E.$ = 5.1). The mean performance of children identified as having a low-incidence disability (M = 96.8, $S.E.$ = 3.1) was significantly higher than the mean performance of children identified as having mental retardation (M = 85.5, $S.E.$ = 5.1).

Scores by gender. The mean score for males on the Letter-Word Identification subtest was 97.4 ($S.E.$ = 0.9). The mean score for females was 99.9 ($S.E.$ = 0.8) (see table 21). Despite the fact that mean performance for both males and females was near the norm population mean of 100, the difference in mean performance was statistically significant.

Table 21. Mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III: Letter-Word Identification, by gender: School year 2003–04

	Total	Male	Female
Total	98.2	97.4	99.9
Cohort A (age 3)	100.8	100.1	102.4
Cohort B (age 4)	98.5	97.5	100.7
Cohort C (age 5)	96.8	96.2	98.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Letter-Word Identification," previously unpublished tabulation (April 2005).

Scores by race/ethnicity. The mean score for White children on the Letter-Word Identification subtest was 99.6 (*S.E.* = 0.9). For Black children, it was 91.9 (*S.E.* = 1.5), and for Hispanic children it was 94.3 (*S.E.* = 1.3) (see table 22). The mean performance of White children was significantly higher than that of Black children and Hispanic children.

Scores by household income. Children from households with annual incomes of $20,000 or less performed below the population mean on the Letter-Word Identification subtest, 91.2 (*S.E.* = 1.0). Children in the higher income households averaged close to or above the population mean (see table 23). The mean performance of children from households with an income of $20,000 or less was significantly lower than that of children from all other income groups ($20,001 to $30,000; $30,001 to $40,000; $40,001 to $50,000; more than $50,000). The mean performance of children from households with an income between $20,001 and $30,000 was significantly lower than that of children from households with an income more than $50,000. Finally, the mean performance of children from households with an income between $30,001 and $40,000 was significantly lower than that of children from households with an income between $40,001 and $50,000 and more than $50,000.

Table 22. Mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III: Letter-Word Identification, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	98.2	91.9	94.3	99.6
Cohort A (age 3)	100.8	96.2	94.1	103.2
Cohort B (age 4)	98.5	87.0	96.5	100.0
Cohort C (age 5)	96.8	95.4	92.8	97.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Letter-Word Identification," previously unpublished tabulation (April 2005).

Table 23. Mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III: Letter-Word Identification, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	98.2	91.2	97.2	96.1	100.6	103.6
Cohort A (age 3)	100.8	92.7	97.7	94.5	99.6	110.0
Cohort B (age 4)	98.5	90.3	97.7	99.1	102.1	102.8
Cohort C (age 5)	96.8	91.3	96.4	93.4	99.5	100.9

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Letter-Word Identification," previously unpublished tabulation (April 2005).

Peabody Picture Vocabulary Test (PPVT)

The direct assessment includes a measure of receptive vocabulary using an adapted version of the PPVT III. Receptive vocabulary also is referred to as listening vocabulary or oral vocabulary. It is considered a strong predictor of language acquisition and cognitive development and is thus a key component in early emerging literacy (Dunn and Dunn 1997).

The PPVT requires an assessor to show the child four pictures on a single page then ask the child to point to the picture that matches a word the assessor speaks aloud. For example, the child is shown a page with a picture of a lamp, a wagon, a hoe, and a mop. The child is asked to point to the lamp. If the child points to the correct picture, then he or she is given 1 point. Prior to beginning the actual test, the child is given two sets of practice items. If the child correctly completes two consecutive practice items on each set, he or she is administered the actual test. If the child fails to meet the performance criteria,

then the test is not administered. As discussed in chapter 2, PEELS uses a psychometrically adapted and shortened version of the PPVT III.

The overall mean performance of children with disabilities on the PPVT was 90.1 (*S.E.* = 0.6). This is below the population mean of 100 but within one standard deviation of the mean.

Scores by cohort. The mean on the PPVT for children in all three age cohorts was below the population mean of 100 but well within one standard deviation of the mean (see table 24). The 3-year-old children in Cohort A had a mean of 88.6 (*S.E.* = 0.8), 4-year-old children in Cohort B had a mean of 89.7 (*S.E.* = 0.8), and 5-year-old children in Cohort C had a mean of 91.1 (S.E. = 0.9). Differences among cohorts were not statistically significant.

Scores by disability. The mean performance of preschoolers with disabilities on the PPVT across all disability categories fell within one standard deviation of the mean (85 to 115), except for children identified as having mental retardation (see table 25), whose mean score was more than two standard deviations below that of the norm population. Mean performances ranged from a low of 69.9 (*S.E.* = 4.1) for children identified as having mental retardation to a high of 94.6 (*S.E.* = 3.7) for children identified as having an emotional disturbance.

Significance tests were performed on the mean scores of the total group across disability categories. These tests indicated that the mean performance of children identified as having mental retardation (*M* = 69.9, *S.E.* = 4.1) was significantly lower than the performance of children identified with all other disabilities, including autism (*M* = 88.2, *S.E.* = 3.6), a developmental delay (*M* = 85.2, *S.E.* = 1.3), an emotional disturbance (*M* = 94.6, *S.E.* = 3.7), a learning disability (*M* = 85.0, *S.E.* = 1.7), an orthopedic impairment (*M* = 85.2, *S.E.* = 2.4), an other health impairment (*M* = 89.6, *S.E.* = 4.1), a speech or language impairment (*M* = 93.4, *S.E.* = 0.6), or a low-incidence disability (*M* = 85.5, *S.E.* = 2.9).

The mean performance of children identified as having a speech or language impairment (*M* = 94.3, *S.E.* = 0.6) was significantly higher than that of children identified as having a developmental delay (*M* = 85.2, *S.E.* = 1.3), a learning disability (*M* = 85.0, *S.E.* = 1.7), an orthopedic impairment

Table 24. Mean performance of children with disabilities ages 3–5 on Peabody Picture Vocabulary Test, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
90.1	88.6	89.7	91.1

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Peabody Picture Vocabulary Test," previously unpublished tabulation (April 2005).

Table 25. Mean performance of children with disabilities ages 3-5 on Peabody Picture Vocabulary Test, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	90.1	88.2	85.2	94.6	85.0	69.9	85.2	89.6	93.4	85.5
Cohort A (age 3)	88.6	84.9	84.1	‡	74.6	‡	‡	85.0	92.2	85.7
Cohort B (age 4)	89.7	91.3	84.4	92.6	80.7	61.9	81.5	86.0	93.7	88.0
Cohort C (age 5)	91.1	86.8	87.1	89.3	87.3	77.2	‡	93.6	93.6	83.3

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Peabody Picture Vocabulary Test," previously unpublished tabulation (April 2005).

(*M* = 85.2, *S.E.* = 2.4), or a low-incidence disability (*M* = 85.5, *S.E.* = 2.9). Children identified as having an emotional disturbance (*M* = 94.6, *S.E.* = 3.7) performed significantly higher than children identified as having a developmental delay (*M* = 85.2, *S.E.* = 1.3), a learning disability (*M* = 85.0, *S.E.* = 1.7), or a low-incidence disability (*M* = 85.5, *S.E.* = 2.9).

Scores by gender. Both males and females fell well within one standard deviation of the population mean (85 to 115) on the PPVT. The nearly identical mean performance for males (*M* = 90.0, *S.E.* = 0.7) and females (*M* = 90.3, *S.E.* = 1.1) was not statistically different and slightly below the population mean of 100 (see table 26).

Scores by race/ethnicity. White children (*M* = 93.2, *S.E.* = 0.7) performed within one standard deviation of the mean (85 to 115) of the norm population on the PPVT while Black children (*M* = 82.1,

Table 26. Mean performance of children with disabilities ages 3–5 on Peabody Picture Vocabulary Test, by gender: School year 2003–04

	Total	Male	Female
Total	90.1	90.0	90.3
Cohort A (age 3)	88.6	88.5	88.7
Cohort B (age 4)	89.7	89.8	89.7
Cohort C (age 5)	91.1	90.9	91.5

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Peabody Picture Vocabulary Test," previously unpublished tabulation (April 2005).

S.E. = 1.2) and Hispanic children (*M* = 82.8, *S.E.* = 1.2) averaged slightly more than one standard deviation below the population mean (see table 27). In fact, the mean performance of White children was significantly higher than that of Black children and Hispanic children.

Scores by household income. On the PPVT, mean scores ranged from 84.3 (*S.E.* = 1.2) for the lowest household income group to 94.4 (*S.E.* = 0.8) for the highest income group (see table 28). The mean performance of children from households at or below poverty level (i.e., $20,000 or less) was significantly lower than that of all other subgroups ($20,001 to $30,000; $30,001 to $40,000; $40,001 to $50,000; and more than $50,000. The mean performance of children from households with an income of more than $50,000 was significantly higher than that of children from households with an income of $20,001 to $30,000 and $30,001 to $40,000.

Adaptive Behavior Assessment System II (ABAS-II) – Functional (Pre) Academics

Teachers were asked to complete three subscales from the ABAS-II, including Functional (Pre) Academics, Self-Care, and Self-Direction. For each subscale, teachers rated the frequency with which the identified child exhibited specific behaviors, using a four-point scale. The scale points are labeled as follows: 0, *Is not able*; 1, *Never when needed*; 2, *Sometimes when needed*; and 3, *Always when needed*. Teachers also are provided a box to check whether their rating is based on an educated guess or estimate.

Table 27. Mean performance of children with disabilities ages 3–5 on Peabody Picture Vocabulary Test, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	90.1	82.1	82.8	93.2
Cohort A (age 3)	88.6	84.3	80.2	91.5
Cohort B (age 4)	89.7	80.0	82.7	93.4
Cohort C (age 5)	91.1	83.3	83.8	93.8

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Peabody Picture Vocabulary Test," previously unpublished tabulation (April 2005).

Table 28. Mean performance of children with disabilities ages 3–5 on Peabody Picture Vocabulary Test, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	90.1	84.3	88.7	89.7	92.0	94.4
Cohort A (age 3)	88.6	83.0	86.0	88.8	92.7	92.3
Cohort B (age 4)	89.7	83.2	86.4	89.5	94.9	93.7
Cohort C (age 5)	91.1	85.7	91.0	90.4	88.7	96.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Peabody Picture Vocabulary Test," previously unpublished tabulation (April 2005).

Two forms from the ABAS-II were used for the PEELS assessment. The Teacher/Daycare Provider (TDP) Form is designed for children ages 2 to 5, while the Teacher Form (TF) is designed for elementary students. The TDP Form is a comprehensive, diagnostic measure of the adaptive skills that are relevant for toddlers' and preschoolers' functioning in a daycare center, home daycare, preschool, or school setting. The Teacher Form measures the adaptive skills that are most relevant for children's functioning in a school setting. For Wave 1, the TDP Form was used for non-kindergarteners and the TF for children in kindergarten.

The scaled scores for each of the skill areas (Functional Academics, Self-Care, and Self-Direction) are based on a mean of 10 and a standard deviation of 3. These are means for the general population. The following report of the ABAS-II data covers the Functional (Pre) Academics subscale. The results of the Self-Care and Self-Direction subscales are presented later in this chapter in the Social Behavior section.

The Functional Pre-Academics subscale (for Cohorts A and B) measures basic pre-academic skills that form the foundations for reading, writing, mathematics, and other skills needed for daily, independent functioning. The TDP Form includes such items as “reads his/her own name,” “prints at least two letters from his/her name,” and “tells what day comes before another, for example Wednesday comes before Thursday.” The Functional Academics subscale (for Cohort C) measures basic reading, writing, mathematics, and other academic skills needed for daily, independent functioning. The TF includes such items as “writes his/her own name,” “reads and obeys common signs, for example, Do Not Enter, Exit, or Stop,” and “states the days of the week in order.”

Scores by cohort. For children not yet in kindergarten, the overall mean teacher/daycare provider rating on the Functional Pre-Academics subscale of the ABAS-II was 7.9 (*S.E.* = 0.2). Differences between Cohort A and Cohort B were not statistically significant (see table 29). For kindergarteners, the mean teacher rating on the Functional Academics subscale of the ABAS-II was 8.7 (*S.E.* = 0.3). Because the Functional Academics subscale from the Teacher Form was used only with Cohort C, no cohort comparisons are available.

***Scores by disability*.** Teacher/daycare provider ratings on the Functional Pre-Academics subscale of the ABAS-II varied across disability categories, ranging from a low of 6.8 (*S.E.* = 0.6) for children identified as having an orthopedic impairment to a high of 8.6 (*S.E.* = 0.2) for children identified as having a speech or language impairment (see table 30). The mean rating for children identified as having a speech or language impairment (*M* = 8.6, *S.E.* = 0.2) was significantly higher than that of children identified as having a developmental delay (*M* = 6.9, *S.E.* = 0.2) or an orthopedic impairment (*M* = 6.8, *S.E.* = 0.6).

Mean teacher ratings on the Functional Academics scale for kindergarteners varied across disability categories as well, ranging from a low of 7.1 (*S.E.* = 0.9) for children identified as having a learning disability, and 7.1 (*S.E.* = 1.4) for children identified as having a low-incidence disability, to a high of 9.4 (*S.E.* = 0.3) for children identified as having a speech or language impairment (see table 30).

Table 29. Mean teacher ratings of children with disabilities ages 3–5 on the (Pre-) Functional Academics subscale of the Adaptive Behavior Assessment System II, by age cohort: School year 2003–04

Not yet in kindergarten		In kindergarten	
Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
7.9	7.7	8.0	8.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Functional Pre-Academics and Teacher Form: Functional Academics," previously unpublished tabulation (April 2005).

Table 30. Mean teacher ratings of children with disabilities ages 3-5 on the (Pre) Functional Academics subscale of the Adaptive Behavior Assessment System II, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Not in kindergarten										
Total	7.9	8.5	6.9	‡	‡	‡	6.8	‡	8.6	7.5
Cohort A (age 3)	7.7	10.7	6.8	‡	‡	‡	‡	‡	8.0	8.1
Cohort B (age 4)	8.0	7.7	7.0	‡	‡	2.7	6.3	‡	8.9	7.3
In kindergarten										
Cohort C (age 5)	8.7	‡	8.5	‡	7.1	‡	‡	‡	9.4	7.1

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Functional Pre-Academics and Teacher Form: Functional Academics," previously unpublished tabulation (April 2005).

The mean rating for kindergarteners identified as having a speech or language impairment was significantly higher than the mean rating for children identified as having a learning disability.

Scores by gender. Both males and females had mean teacher/daycare provider ratings of 7.9 (*S.E.* = 0.2) on the Functional Pre-Academics subscale of the ABAS-II (see table 31), which was completed for children with disabilities not yet in kindergarten. This rating was below the population mean of 10. For the Functional Academics subscale, which was completed for children in kindergarten, males had a rating of 8.5 (*S.E.* = 0.4), and females had a mean rating of 9.2 (*S.E.* = 0.5); this difference was not statistically significant.

Table 31. Mean teacher ratings of children with disabilities ages 3–5 on the Functional (Pre-) Academics subscale of the Adaptive Behavior Assessment System II, by gender: School year 2003–04

	Total	Male	Female
Not yet in kindergarten			
Total	7.9	7.9	7.9
Cohort A (age 3)	7.7	7.5	8.1
Cohort B (age 4)	8.0	8.1	7.8
In kindergarten			
Cohort C (age 5)	8.7	8.5	9.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Functional Pre-Academics and Teacher Form: Functional Academics," previously unpublished tabulation (April 2005).

Scores by race/ethnicity. Mean scores on the Functional Pre-Academics subscale varied across racial/ethnic groups, and ranged from 6.5 (*S.E.* = 0.6) for Black children to 8.1 (*S.E.* = 0.2) for White children (see table 32). The mean rating for White children was significantly higher than the mean rating for Black children. For kindergarteners, ratings were also below the population mean of 10, and varied across racial/ethnic groups on the Functional Academics subscale from a low of 8.0 (*S.E.* = 0.6) for Hispanic children to a high of 9.0 for both Black (*S.E.* = 0.6) and White children (*S.E.* = 0.3) (see table 32); however, these differences were not statistically significant.

Scores by household income. Mean ratings for children across household income groups ranged from 7.0 (*S.E.* = 0.3) to 8.6 (*S.E.* = 0.4) on the Functional Pre-Academics subscale of the ABAS-II (see table 33). The mean rating for children from households with an income of more than $50,000 was significantly higher than that of children from households with an income of $20,000 or less, $20,001 to $30,000, and $30,001 to $40,000. Similarly, the mean rating for children from households with an income between $40,001 and $50,000 was significantly higher than that of children from households with an income of $20,000 or less, $20,001 to $30,000, and $30,001 to $40,000. Ratings for kindergarteners on the Functional Academics subscale ranged from 8.4 (*S.E.* = 0.6) to 9.2 (*S.E.* = 0.6) (see table 33); however, none of those differences were statistically significant.

Table 32. Mean teacher ratings of children with disabilities ages 3–5 on the Functional (Pre-) Academics subscale of the Adaptive Behavior Assessment System II, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Not yet in kindergarten				
Total	7.9	6.5	7.5	8.1
Cohort A (age 3)	7.7	7.2	7.4	7.9
Cohort B (age 4)	8.0	6.1	7.6	8.2
In kindergarten				
Cohort C (age 5)	8.7	9.0	8.0	9.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Functional Pre-Academics and Teacher Form: Functional Academics," previously unpublished tabulation (April 2005).

Table 33. Mean teacher ratings of children with disabilities ages 3–5 on the Functional (Pre-) Academics subscale of the Adaptive Behavior Assessment System II, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Not yet in kindergarten						
Total	7.9	7.0	7.3	7.5	8.6	8.5
Cohort A (age 3)	7.7	6.7	7.2	7.3	8.0	8.7
Cohort B (age 4)	8.0	7.2	7.3	7.7	8.8	8.4
In kindergarten						
Cohort C (age 5)	8.7	8.7	8.4	9.0	9.2	8.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Functional Pre-Academics and Teacher Form: Functional Academics," previously unpublished tabulation (April 2005).

Early Math Proficiency

In 2000, the National Council of Teachers of Mathematics (NCTM) published *Principles and Standards for School Mathematics* (2000), which contains standards for pre-kindergarten through second grade. The standards cover performance expectations in five content areas—number and operations, geometry, measurement, algebra, and data analysis and probability, and five process areas—problem solving, reasoning and proof, communication, connections, and representations (NCTM 2000). Many of these skills are assessed in PEELS.

Both the Applied Problems and Quantitative Concepts subtests of the Woodcock-Johnson III Achievement Battery are part of the math proficiency measures in the PEELS direct assessment. The sections below provide a brief description of the tests. Results by cohort, disability category, gender, race/ethnicity, and household income follow each test description.

Woodcock-Johnson III: Applied Problems

The Applied Problems test is a measure of children's ability to analyze and solve practical math problems using simple counting, addition, or subtraction operations. The assessor presents the child with a picture and asks the child a question, such as "How many dogs are in this picture?" The task requires the child to both understand the request and then perform the correct operation. In the above example, the child counts the number of dogs in the picture. The math problems are ordered with increasing difficulty either in the operation the child is required to perform (addition as opposed to subtraction) or in the age-appropriate experience with the particular concept, such as coin identification, telling time, reading temperature, and others. Children are awarded 1 point for each correct answer and 0 for each incorrect answer. The test is terminated when the child either finishes all items or misses six consecutive items at the end of a test page. Scores are totaled and converted to a norm-referenced scale with a mean of 100 and a standard deviation of 15.

The overall mean performance of preschoolers with disabilities on the Woodcock-Johnson III: Applied Problems subtest was 90.3 (*S.E.* = 1.0). This was within one standard deviation of the population mean.

Scores by cohort. The mean scores for children in Cohorts A, B, and C were 88.2 (*S.E.* = 1.3), 91.2 (*S.E.* = 1.6), and 90.6 (*S.E.* = 1.0) (see table 34). The scores for all cohorts were within a standard deviation of the population mean (85 to 115) for this test. Differences among cohorts were not statistically significant.

Table 34. Mean performance of children with disabilities ages 3-5 on Woodcock-Johnson III: Applied Problems, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
90.3	88.2	91.2	90.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Applied Problems," previously unpublished tabulation (April 2005).

Scores by disability. Children in three disability categories performed within a standard deviation of the population mean (85 to 115) on the Applied Problems subtest (see table 35). These categories included children identified as having an emotional disturbance (*M* = 94.9, *S.E.* = 4.2), an orthopedic impairment (*M* = 91.1, *S.E.* = 3.0), or a speech or language impairment (*M* = 96.4, *S.E.* = 0.7). Children identified as having a learning disability (*M* = 84.6, *S.E.* = 3.0) performed one standard deviation below the mean as did children identified as having an other health impairment (*M* = 84.2, *S.E.* = 5.7). Additionally, children in another three disability categories performed more than one standard deviation below the mean for the norm population. These included children identified as having a low-incidence disability (*M* = 83.4, *S.E.* = 3.9), a developmental delay (*M* = 82.7, *S.E.* = 1.4), or autism (*M* = 80.7, *S.E.* = 6.9). Children identified as having mental retardation performed more than two standard deviations below that of the norm population, with a mean score of 60.6 (*S.E.* = 4.0).

Significant differences were observed across disability categories. The mean performance of children identified as having mental retardation (*M* = 60.6, *S.E.* = 4.0) was significantly lower than the performance of children in all of the other disability categories. The performance of children identified as having a speech or language impairment (*M* = 96.4, *S.E.* = 0.7) was significantly higher than that of children identified as having autism (*M* = 80.7, *S.E.* = 6.9), a developmental delay (*M* = 82.7, *S.E.* = 1.4), a learning disability (*M* = 84.6, *S.E.* = 3.0), an other health impairment (*M* = 84.2, *S.E.* = 5.7), or a low-incidence disability (*M* = 83.4, *S.E.* = 3.9). Finally, children identified as having a developmental delay (*M* = 82.7, *S.E.* = 1.4) scored significantly lower than children identified as having an emotional disturbance (*M* = 94.9, *S.E.* = 4.2) or an orthopedic impairment (*M* = 91.1, *S.E.* = 3.0).

Table 35. Mean performance of children with disabilities ages 3-5 on Woodcock-Johnson III: Applied Problems, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	90.3	80.7	82.7	94.9	84.6	60.6	91.1	84.2	96.4	83.4
Cohort A (age 3)	88.2	78.6	81.2	‡	‡	‡	88.2	82.7	94.8	80.1
Cohort B (age 4)	91.2	91.1	82.2	‡	89.9	51.6	88.8	77.2	97.3	89.5
Cohort C (age 5)	90.6	72.8	84.3	89.4	82.2	68.4	‡	89.8	96.3	78.3

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Applied Problems," previously unpublished tabulation (April 2005).

Scores by gender. Both males and females had mean scores within one standard deviation of the population mean on the Applied Problems subtest (see table 36). The mean score for males was 89.8 (*S.E.* = 1.2) and the mean score for females was 91.5 (*S.E.* = 1.0), differences that were not statistically significant.

Scores by race/ethnicity. On Applied Problems, White children (*M* = 93.5, *S.E.* = 0.9) performed within one standard deviation of the population mean (85 to 115), while Black children (*M* = 78.0, *S.E.* = 2.5) and Hispanic children (*M* = 83.2, *S.E.* = 1.4) performed more than one standard deviation below the mean (see table 37). The performance of White children was significantly higher than the performance of Black children and Hispanic children.

Scores by household income. Children in the lowest household income group of $20,000 or less had a mean performance on the Applied Problems subtest of 81.9 (*S.E.* = 1.4), which was more than one standard deviation below the mean for the norm population. Mean scores for children in the other income groups ranged from 90.2 (*S.E.* = 1.3) to 95.5 (*S.E.* = 1.2) (see table 38). The scores for children in the lowest income category were significantly below the scores of all other income groups ($20,001 to $30,000; $30,001 to $40,000; $40,001 to $50,000; and more than $50,000. Children in households earning more than $50,000 performed significantly better than children

Table 36. Mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III: Applied Problems, by gender: School year 2003–04

	Total	Male	Female
Total	90.3	89.8	91.5
Cohort A (age 3)	88.2	86.9	91.2
Cohort B (age 4)	91.2	90.2	93.5
Cohort C (age 5)	90.6	90.9	89.9

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Applied Problems," previously unpublished tabulation (April 2005).

Table 37. Mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III: Applied Problems, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	90.3	78.0	83.2	93.5
Cohort A (age 3)	88.2	85.3	79.5	90.0
Cohort B (age 4)	91.2	72.6	86.9	94.6
Cohort C (age 5)	90.6	80.4	81.7	94.1

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Applied Problems," previously unpublished tabulation (April 2005).

Table 38. Mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III: Applied Problems, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	90.3	81.9	90.2	90.5	92.8	95.5
Cohort A (age 3)	88.2	79.2	87.2	88.3	92.2	93.8
Cohort B (age 4)	91.2	81.9	88.0	93.2	93.4	96.5
Cohort C (age 5)	90.6	83.1	92.5	88.5	91.3	95.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Applied Problems," previously unpublished tabulation (April 2005).

in the $20,001 to $30,000 range and in the $30,001 to $40,000 range. Children in households in the income range of $40,001 to $50,000 had Applied Problems scores that were negatively skewed, particularly among children in Cohort B (overall *Mdn* = 98.0; Cohort B *Mdn* = 101.2). This suggests that some children with very low scores were pulling down the mean for the entire group.

Woodcock-Johnson III: Quantitative Concepts (Concepts and Number Series)

The Quantitative Concepts test measures basic mathematical concepts, symbols, and vocabulary (Mather and Woodcock 2001). In Wave 1, it was given only to children in Cohort C because the test was developed for children ages 5 and older. The test has two sections—Concepts and Number Series. The Concepts section tests numbers, counting, recognition of geometric shapes, and important relational concepts such as larger and smaller, first and last. The Number Series section consists of questions about numbers and number patterns. In both sections of the test, the child is presented with a picture and asked a question that requires the child to demonstrate familiarity with a particular concept or mathematical operation. For example, in the Concepts section, the child is presented with a picture of five stars of varying sizes and is asked to point to the largest star, then to the smallest star.

In the Number Series section, the assessor presents the child with a series of numbers on a page. In the series is a blank space. The child is asked to tell the number belonging in the blank space. For example, the series 9, 8, 7, __ is presented on a page. The child needs to tell the assessor what number should go in the blank space. Test administration continues until the child finishes all of the items or misses the last four consecutive items at the end of a test page. Correct answers are given a score of 1, and incorrect responses are scored with a 0. Correct answers are totaled within sections then across sections to yield a single Quantitative Concepts score. Finally, the single score is converted to a standardized norm-referenced score with a mean of 100 and a standard deviation of 15.

The mean performance of children in Cohort C on the Quantitative Concepts test was 91.2 (*S.E.* = 0.9). These children performed well within one standard deviation of the population mean on the test (85 to 115).

Scores by disability. Children in four disability categories performed within one standard deviation of the population mean on this subtest (see table 39). This included children identified as having autism (*M* = 85.2, *S.E.* = 9.3), an emotional disturbance (*M* = 92.2, *S.E.* = 7.0), an other health impairment (*M* = 87.6, *S.E.* = 7.7), or a speech or language impairment (*M* = 95.6, *S.E.* = 1.0). Children

Table 39. Mean performance of children with disabilities ages 3-5 on Woodcock-Johnson III: Quantitative Concepts, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Cohort C (age 5)	91.2	85.2	83.6	92.2	82.8	78.5	‡	87.6	95.6	83.4

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Quantitative Concepts," previously unpublished tabulation (April 2005).

identified as having a developmental delay (*M* = 83.6, *S.E.* = 1.7), a learning disability (*M* = 82.8, *S.E.* = 4.5), mental retardation (*M* = 78.5, *S.E.* = 6.9), or a low-incidence disability (*M* = 83.4, *S.E* = 4.9) had mean performances more than one standard deviation below the population mean.

Significance tests were performed on the Quantitative Concepts test scores across disability categories. Among the possible contrasts, only three tests were statistically significant, all involving children identified as having a speech or language impairment. Children identified as having a speech or language impairment (*M* = 95.6, *S.E.* = 1.0) performed significantly better than children identified as having a developmental delay (*M* = 83.6, *S.E.* = 1.7), a learning disability (*M* = 82.8, *S.E.* = 4.5), or mental retardation (*M* = 78.5, *S.E.* = 6.9). Scores among children with a low-incidence disability were positively skewed (*Mdn* = 77.3), suggesting that relatively few high-scoring children pulled up the mean for the subgroup.

Scores by gender. Performances on the Quantitative Concepts test by gender are provided in table 40. The mean performance for males was 91.2 (*S.E.* = 1.1) and for females 91.0 (*S.E.* = 1.2), a difference that was not statistically significant.

Scores by race/ethnicity. Black children and Hispanic children had identical means of 87.4 (*S.E.* = 2.3 and 1.4, respectively) on the Quantitative Concepts subtest, while White children had a mean of 92.2 (*S.E.* = 1.2) (see table 41). All three racial/ethnic groups performed within one standard deviation of the population mean (85 to 115). Significance tests showed that White children performed significantly better than Black children and Hispanic children.

Table 40. Mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III: Quantitative Concepts, by gender: School year 2003–04

	Total	Male	Female
Cohort C (age 5)	91.2	91.2	91.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Quantitative Concepts," previously unpublished tabulation (April 2005).

Table 41. Mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III: Quantitative Concepts, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Cohort C (age 5)	91.2	87.4	87.4	92.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Quantitative Concepts," previously unpublished tabulation (April 2005).

Scores by household income. Children from households with annual incomes of $20,000 or less performed one standard deviation below the population mean (*M* = 85.0, *S.E.* = 1.8), while children from households of more than $50,000 performed closer to the norm population mean of 100 (*M* = 97.6, *S.E.* = 1.7) (see table 42). There was no statistical difference in performances between the lowest income group ($20,000 or less) and the next two income groups ($20,001 to $30,000 and $30,001 to $40,000). However, a significant difference did exist between the performance of children in the lowest income group and those in the two highest income groups as well as between the next lowest group ($20,000 to $30,000) and the two highest groups. Children in the $40,001 to $50,000 income group performed significantly better than those in the $20,000 or less group, the $20,001 to $30,000 group, and the $30,001 to $40,000 group. Children in the highest income group performed significantly better than those in the lowest income group, the $20,001 to $30,000 income group, and the $30,001 to $40,000 income group.

Social Behavior

Children who enter school lacking social and emotional competence are at a distinct disadvantage in a learning environment. Aggressive or withdrawn behaviors put children at risk for school failure, as do

Table 42. Mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III: Quantitative Concepts, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Cohort C (age 5)	91.2	85.0	88.9	87.0	93.1	97.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Quantitative Concepts," previously unpublished tabulation (April 2005).

difficulties in peer relationships and play behavior, high anxiety, inflexibility, and distractibility (Bowman, Donovan, and Burns 2001; Huffman, Mehlinger, and Kerivan 2000; Peth-Pierce 2002; Shonkoff and Phillips 2000).

To assess social behavior among children with disabilities, the PEELS assessment battery includes a teacher report of child behavior as observed in a school setting. The teacher-rated social behavior assessment includes the following scales from the Preschool and Kindergarten Behavior Scales, Second Edition (PKBS-2) and the ABAS-II:

- PKBS-2 – Social Skills;
- PKBS-2 – Problem Behavior;
- ABAS-II – Self-Care; and
- ABAS-II – Self-Direction.

A brief description of each test is provided, followed by the results by cohort, disability category, gender, race/ethnicity, and household income.

Preschool and Kindergarten Behavior Scales (PKBS-2) – Social Skills

The Preschool and Kindergarten Behavior Scales Second Edition (PKBS-2) provides a measure of each child's social and behavioral skills. Teachers are asked to rate how frequently the identified child exhibited a series of skills or behaviors during the previous three months. The measurement scale consists of four points. The scale points are labeled as follows: 0, *Never*; 1, *Rarely*; 2, *Sometimes*; and 3, *Often*.

The PKBS-2 consists of five subscales—Social Cooperation, Social Interaction, Social Independence, Externalizing Problems, and Internalizing Problems. The standard scores for the Social

Cooperation, Social Interaction, and Social Independence subscales are summed to create the Social Skills composite score. A higher rating on the Social Skills composite index indicates a higher level of social adjustment. The composite scores are then converted to composite standard scores. PKBS-2 standard scores are based on a distribution with a mean of 100 and a standard deviation of 15 (Merrell 2002).

The Social Skills scale of the PKBS-2 assesses age-appropriate personal and interpersonal behaviors of preschool and early elementary-age children. Age-appropriate personal behaviors include such things as, "works or plays independently," "follows rules," and "accepts decisions made by adults." Age-appropriate interpersonal behaviors include such things as "is cooperative," "comforts other children who are upset," and "takes turns with toys and other objects."

Overall, teacher ratings suggested that the social skills of children with disabilities fell well within a standard deviation of the population mean (85 to 115) (see table 43). The overall mean was 92.8 (*S.E.* = 0.9).

Scores by cohort. The oldest children (Cohort C) (*M* = 96.5, *S.E.* = 1.4) received ratings that were significantly higher than those of the youngest children (Cohort A) (*M* = 85.2, *S.E.* = 1.2) on the PKBS-2 Social Skills scale. Likewise, children in Cohort B (*M* = 93.0, *S.E.* = 1.1) received significantly higher ratings than children in Cohort A (see table 43).

Scores by disability. Children in all but three disability categories received ratings within one standard deviation of the population mean (85 to 115) on the Social Skills subscale of the PKBS-2 (see table 44). Mean ratings were more than one standard deviation below the mean for children identified as having a low-incidence disability (*M* = 84.3, *S.E.* = 3.9), autism (*M* = 73.2, *S.E.* = 3.4), or mental retardation (*M* = 69.0, *S.E.* = 3.7). In fact, the mean performances of children identified as having autism or mental retardation were approximately two standard deviations below the norm population mean.

Table 43. Mean teacher ratings of children with disabilities ages 3–5 on the Social Skills subscale of the Preschool and Kindergarten Behavior Scale, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
92.8	85.2	93.0	96.5

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (April 2005).

Table 44. Mean teacher ratings of children with disabilities ages 3-5 on the Social Skills subscale of the Preschool and Kindergarten Behavior Scale, by disability category: School year 2003-04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	92.8	73.2	88.2	89.5	92.4	69.0	95.7	89.4	100.3	84.3
Cohort A (age 3)	85.2	68.0	81.3	‡	‡	63.7	‡	86.9	92.7	89.1
Cohort B (age 4)	93.0	72.9	88.3	‡	‡	70.8	90.5	83.7	102.2	82.6
Cohort C (age 5)	96.5	78.1	94.5	96.2	92.0	69.2	‡	94.4	102.3	84.4

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Mean ratings of children identified as having mental retardation (*M* = 69.0, *S.E.* = 3.7) were significantly lower than those of children in all but one other disability category, autism (*M* = 73.2, *S.E.* = 3.4). Significant differences occurred between children identified as having mental retardation and those identified as having a developmental delay (*M* = 88.2, *S.E.* = 1.7), an emotional disturbance (*M* = 89.5, *S.E.* = 6.0), a learning disability (*M* = 92.4, *S.E.* = 4.2), an orthopedic impairment (*M* = 95.7, *S.E.* 4.3), an other health impairment (*M* = 89.4, *S.E.* = 3.9), a speech or language impairment (*M* = 100.3, *S.E.* = 1.1), or low-incidence disability (*M* = 84.3, *S.E.* = 3.9).

Scores for children identified as having autism (*M* = 73.2, *S.E.* = 3.4) were significantly different from those of children identified as having all other disabilities except mental retardation (*M* = 69.0, *S.E.* = 3.7) or a low-incidence disability (*M* = 84.3, *S.E.* = 3.9). Statistically significant differences occurred between children identified as having autism and those identified as having a developmental

delay (*M* = 88.2, *S.E.* = 1.7), an emotional disturbance (*M* = 89.5, *S.E.* = 6.0), a learning disability (*M* = 92.4, *S.E.* = 4.2), an orthopedic impairment (*M* = 95.7, *S.E.* = 4.3), an other health impairment (*M* = 89.4, *S.E.* = 3.9), or a speech or language impairment (*M* = 100.3, *S.E.* = 1.1).

The only additional statistically significant difference between disability categories was for children identified as having a speech or language impairment (*M* = 100.3, *S.E.* = 1.1). These children received higher ratings from teachers than did children identified as having a developmental delay (*M* = 88.2, *S.E.* = 1.7), an other health impairment (*M* = 89.4, *S.E.* = 3.9), or a low-incidence disability (*M* = 84.3, *S.E.* 3.9).

Scores by gender. Both males and females received social skills ratings within one standard deviation of the population mean on social skills. The mean rating for males was 91.2 (*S.E.* = 1.0), and the mean for females was 96.5 (*S.E.* = 1.2) (see table 45). Females had significantly higher social skills ratings than males.

Scores by race/ethnicity. Overall, social skills ratings were within one standard deviation of the population mean (85 to 115) for White children (*M* = 94.7, *S.E.* = 1.6) and Hispanic children (*M* = 90.5, *S.E.* = 2.0) but below the 85 for Black children (*M* = 83.9, *S.E.* = 3.0) (see table 46). The ratings for Black children were significantly lower than ratings for Hispanic children and White children, and the ratings for Hispanic children were significantly lower than those for White children.

Scores by household income. Children in all household income groups received social skills ratings within a standard deviation of the population mean (85 to 115); means ranged from 91.1 (*S.E.* = 1.8) for children in households earning $20,000 or less to 95.1 (*S.E.* = 2.2) for children in households earning $40,001 to $50,000 (see table 47). Scores for children in the 40,001 to 50,000 group were positively skewed (*Mdn* = 101.7), most notably among children in Cohort B (*Mdn* = 102.3). This indicates that a small group of low scoring children brought down the mean for the whole group. There were no significant differences among the ratings of children in the five income categories.

Table 45. Mean teacher ratings of children with disabilities ages 3–5 on the Social Skills subscale of the Preschool and Kindergarten Behavior Scale, by gender: School year 2003–04

	Total	Male	Female
Total	92.8	91.2	96.5
Cohort A (age 3)	85.2	84.3	87.5
Cohort B (age 4)	93.0	91.6	96.5
Cohort C (age 5)	96.5	94.5	101.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), " Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (April 2005).

Table 46. Mean teacher ratings of children with disabilities ages 3–5 on the Social Skills subscale of the Preschool and Kindergarten Behavior Scale, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	92.8	83.9	90.5	94.7
Cohort A (age 3)	85.2	83.4	84.7	85.6
Cohort B (age 4)	93.0	81.2	90.9	95.1
Cohort C (age 5)	96.5	88.0	92.6	98.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (April 2005).

Table 47. Mean teacher ratings of children with disabilities ages 3–5 on the Social Skills subscale of the Preschool and Kindergarten Behavior Scale, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	92.8	91.1	92.5	92.0	95.1	93.6
Cohort A (age 3)	85.2	84.0	84.2	83.7	83.0	88.3
Cohort B (age 4)	93.0	88.5	90.9	93.9	95.14	95.6
Cohort C (age 5)	96.5	96.8	97.1	96.1	99.3	94.5

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (April 2005).

Preschool and Kindergarten Behavior Scales (PKBS-2) – Problem Behavior

The Problem Behavior scale of the PKBS-2 addresses behaviors in early elementary-age children that are problematic for social interaction or personal effectiveness and fulfillment. The standard scores for the Externalizing Problems and Internalizing Problems subscales are summed to create the Problem

Behavior composite score. Examples of problem behaviors are that the child "is jealous of other children," "defies parent, teacher, or caregiver," and "takes things away from other children." Examples of personal effectiveness problems are that the child "is restless or fidgety," "acts impulsively without thinking," and "clings to parent or caregiver." It is important to note that higher scores on the Problem Behavior scale indicate greater concern about problematic behavior, unlike other assessments on which higher scores are preferable. Problem Behavior standard scores are based on a distribution with a mean of 100 and a standard deviation of 15 (Merrell 2002).

Teacher ratings of problem behaviors revealed that overall, children with disabilities were rated at close to the population mean for problem behavior (85 to 115), with a mean rating of 98.2 (*S.E.* = 0.7).

Scores by cohort. Children in each of the three cohorts received similar ratings on the PKBS-2 Problem Behaviors subscale, all within one standard deviation of the population mean (see table 48). None of the differences between cohorts were statistically significant.

Scores by disability. Teacher ratings on the Problem Behavior subscale across all disability categories fell within one standard deviation of the population mean (see table 49). Scores by disability category ranged from 93.1 (S.E. = 0.7) for children with a speech or language impairment to 111.3 (S.E. = 4.3) for children with an emotional disturbance.

Children identified as having autism (*M* = 109.5, *S.E.* = 1.5) had significantly higher mean ratings than children identified as having a developmental delay (*M* = 102.9, *S.E.* = 1.0), a learning disability (*M* = 102.6, *S.E.* = 2.4), an orthopedic impairment (*M* = 93.7, *S.E.* = 3.0), a speech or language impairment (*M* = 93.1, *S.E.* = 0.7), or a low-incidence disability (*M* = 95.9, *S.E.* = 2.6).

Children identified as having a developmental delay (*M* = 102.9, *S.E.* = 1.0) received significantly higher mean ratings on the Problem Behavior scale than did children identified as having an orthopedic impairment (*M* = 93.7, *S.E.* = 3.0), a speech or language impairment (*M* = 93.1, *S.E.* 0.7), or a low-incidence disability. (*M* = 95.9, *S.E.* = 2.6). Similarly, children identified as having an emotional disturbance (*M* = 111.3, *S.E.* = 4.3) received significantly higher mean ratings than did children in the

Table 48. Mean teacher ratings of children with disabilities ages 3–5 on the Problem Behavior subscale of the Preschool and Kindergarten Behavior Scale, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
98.2	99.2	98.5	97.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of n's for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (April 2005).

Table 49. Mean teacher ratings of children with disabilities ages 3-5 on the Problem Behavior subscale of the Preschool and Kindergarten Behavior Scale, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	98.2	109.5	102.9	111.3	102.6	105.0	93.7	101.7	93.1	95.9
Cohort A (age 3)	99.2	107.9	101.4	‡	‡	104.9	‡	102.0	94.8	91.6
Cohort B (age 4)	98.5	110.9	103.9	‡	‡	104.9	100.0	106.4	92.3	96.2
Cohort C (age 5)	97.4	109.0	103.1	105.9	103.0	105.0	‡	98.3	93.1	96.8

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

same three categories above—those identified as having an orthopedic impairment, a speech or language impairment, or a low-incidence disability. The children in Cohort C identified as having an emotional disturbance had scores that were strongly positively skewed, with a mean (M = 105.9) more than nine points higher than their median score (Mdn = 96.6). Again, this indicates a small subgroup of children with extremely challenging behavior.

Children identified as having a learning disability (M = 102.6, $S.E.$ = 2.4) had mean ratings significantly higher than children in several other disability groups, children identified as having an orthopedic impairment (M = 93.7, $S.E.$ = 3.0) or a speech or language impairment (M = 93.1, $S.E.$ = 0.7). Finally, children identified as having mental retardation (M = 105.0, $S.E.$ = 2.2) received higher mean

ratings than did children identified as having an orthopedic impairment (*M* = 93.7, *S.E.* = 3.0), a speech or language impairment (*M* = 93.1, *S.E.* = 0.7), or a low-incidence disability (*M* = 95.9, *S.E.* = 2.6).

Scores by gender. Males had higher problem behavior ratings than females, indicating more problem behaviors (see table 50). For males, the mean rating was 99.3 (*S.E.* = 0.8) and, for females it was 95.5 (*S.E.* = 0.7), a difference that was statistically significant.

Scores by race/ethnicity. Black children had a mean rating of 105.1 (*S.E.* = 1.4) on the PKBS-2 Problem Behaviors subscale, above the norm of 100 (see table 51). White children (*M* = 97.5, *S.E.* = 0.8) and Hispanic children (*M* = 98.4, *S.E.* = 1.3) had ratings below the population mean. The differences between ratings for the Black children and both the Hispanic and the White children were statistically significant.

Scores by household income. Overall, across household income groups mean problem behavior ratings were within one standard deviation of the mean (85 to 115). Children in the lowest household income group received a mean rating of 101.7 (*S.E.* = 1.4), just above the norm population mean of 100 (see table 52). The mean ratings for the other income groups ranged from 96.3 (*S.E.* = 1.5) to 97.9 (*S.E.* = 1.4).

Significant differences included those between children in the lowest income group and those in the $20,001 to $30,000 group, $40,001 to $50,000 group, and more than $50,000 group.

Adaptive Behavior Assessment System II (ABAS-II) – Self-Care

The Self-Care scale of the ABAS-II includes items that measure the child's basic personal care skills, including eating, dressing, bathing, toileting, grooming, and hygiene. The Teacher/Daycare Provider (TDP) Form includes items such as "swallows liquids with no difficulty" "nurses, drinks, or eats willingly, with little encouragement" and "tells teacher/daycare provider or other adult when he/she needs to use the bathroom." The Teacher Form (TF) includes some of the same items, but also includes items that are more appropriate for an older child. These items include such things as "uses the school restroom

Table 50. Mean teacher ratings of children with disabilities ages 3–5 on the Problem Behavior subscale of the Preschool and Kindergarten Behavior Scale, by gender: School year 2003–04

	Total	Male	Female
Total	98.2	99.3	95.5
Cohort A (age 3)	99.2	99.3	98.9
Cohort B (age 4)	98.5	99.8	95.4
Cohort C (age 5)	97.4	98.9	94.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (April 2005).

Table 51. Mean teacher ratings of children with disabilities ages 3–5 on the Problem Behavior subscale of the Preschool and Kindergarten Behavior Scale, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	98.2	105.1	98.4	97.5
Cohort A (age 3)	99.2	102.8	98.4	98.8
Cohort B (age 4)	98.5	105.8	98.1	97.8
Cohort C (age 5)	97.4	105.9	98.6	96.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (April 2005).

Table 52. Mean teacher ratings of children with disabilities ages 3–5 on the Problem Behavior subscale of the Preschool and Kindergarten Behavior Scale, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	98.2	101.7	97.9	97.3	96.3	96.6
Cohort A (age 3)	99.2	103.5	97.8	98.5	98.8	96.1
Cohort B (age 4)	98.5	101.8	100.8	97.1	96.0	96.6
Cohort C (age 5)	97.4	100.8	95.8	97.1	95.8	96.8

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (April 2005).

alone," "uses a fork to eat solid food" and "opens a tab-top can, milk carton, or screw-top bottle." Scaled scores are based on a mean of 10 and a standard deviation of 3. As noted previously, for Wave 1, the TDP Form was used for children in Cohorts A and B (non-kindergarteners) and the TF used for children in Cohort C (kindergarteners).

Overall, the mean Self-Care rating for non-kindergarten children with disabilities was 8.6 (*S.E.* = 0.2). The mean rating for kindergarteners with disabilities was 8.1 (*S.E.* = 0.3).

Scores by cohort. The mean rating for children in Cohort A was 8.2 (*S.E.* = 0.2), and for children in Cohort B it was 8.8 (*S.E.* = 0.2) (see table 53). This difference was statistically significant.

Scores by disability. The mean Self-Care skill ratings of non-kindergarteners in Cohorts A and B across disability categories were quite variable (see table 54) and ranged from a low of 5.2 (*S.E.* = 0.8) for children identified as having an orthopedic impairment to a high of 10.0 (*S.E.* = 0.2) for children identified as having a speech or language impairment. Children identified as having an orthopedic impairment (*M* = 5.2, *S.E.* = 0.8) and children identified as having autism (*M* = 5.6, *S.E.* = 0.6) had ratings more than one standard deviation below the population mean. The mean rating for children identified as having a developmental delay (*M* = 7.7, *S.E.* = 0.3) and children identified as having a low-incidence disability (*M* = 7.3, *S.E.* = 1.2) was almost one standard deviation below the population mean. Similar rating patterns existed by cohort on the Self-Care scale.

Several statistically significant differences existed between disability categories. Children identified as having a speech or language impairment (*M* = 10.0, *S.E.* = 0.2) received significantly higher ratings than did children identified as having autism (*M* = 5.6, *S.E.* = 0.6), a developmental delay (*M* = 7.7, *S.E.* = 0.3), an orthopedic impairment (*M* = 5.2, *S.E.* = 0.8), or a low-incidence disability (*M* = 7.3, *S.E.* = 1.2). Children identified as having autism received ratings significantly below those of children identified as having a developmental delay.

Table 53. Mean teacher ratings of children with disabilities ages 3–5 on the Self-Care subscale of the Adaptive Behavior Assessment System II, by age cohort: School year 2003–04

	Not yet in kindergarten		In kindergarten
Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
8.6	8.2	8.8	8.1

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Care and Teacher Form: Self-Care," previously unpublished tabulation (April 2005).

Table 54. Mean teacher ratings of children with disabilities ages 3-5 on the Self-Care subscale of the Adaptive Behavior Assessment System II, by disability category: School year 2003-04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Not yet in kindergarten										
Total	8.6	5.6	7.7	‡	‡	‡	5.2	‡	10.0	7.3
Cohort A (age 3)	8.2	6.1	7.2	‡	‡	‡	‡	‡	9.3	7.6
Cohort B (age 4)	8.8	5.5	8.1	‡	‡	5.4	4.8	‡	10.4	7.1
In kindergarten										
Cohort C (age 5)	8.1	‡	8.0	‡	6.5	‡	‡	‡	9.1	7.4

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Functional Pre-Academics and Teacher Form: Functional Academics," previously unpublished tabulation (April 2005).

Mean Self-Care skill ratings of kindergarteners in Cohort C across disability categories ranged from a low of 6.5 (*S.E.* = 0.9) for children identified as having a learning disability to a high of 9.1 (*S.E.* = 0.4) for children identified as having a speech or language impairment (see table 54). Across all disability categories, the mean scores fell below the population mean of 10 but within one standard deviation of the mean (7 to 13), except for kindergarteners identified as having a learning disability (*M* = 6.5, *S.E.* = 0.9). Significance tests indicated that the mean ratings for children identified as having a speech or language impairment were statistically significantly higher than the mean ratings for children identified as having a learning disability.

Scores by gender. Male and female non-kindergarteners (Cohorts A and B) received similar ratings on the Self-Care scale of the ABAS-II. The mean rating for males was 8.5 (*S.E.* = 0.2) and 8.8 (*S.E.* = 0.3) for females, a difference that was not statistically significant (see table 55). Both males and females fell within one standard deviation of the population mean (7 to 13).

For kindergarten children in Cohort C, males and females performed within one standard deviation of the population mean on the Self-Care scale. Males had a mean rating of 7.7 (*S.E.* = 0.4), and females had a mean rating of 9.1 (*S.E.* = 0.6) (see table 55). This difference was statistically significant.

Scores by race/ethnicity. The Self-Care ratings for non-kindergarteners in Cohorts A and B were similar across all racial/ethnic groups and fell within a standard deviation of the population mean. Scores ranged from a mean of 8.2 (*S.E.* = 0.3) for Hispanic children to a mean of 8.6 (*S.E.* = 0.2) for White children (see table 56). An analysis of variance (ANOVA) indicated no significant differences among the racial/ethnic groups.

The Self-Care ratings of kindergarten children (Cohort C) also fell within a standard deviation of the population mean across racial/ethnic groups, from a low of 7.3 (*S.E.* = 0.9) for Black children to a high of 8.5 (*S.E.* = 0.4) for White children (see table 56). Hispanic children received a mean rating of 7.6 (*S.E.* = 0.6). Again, an ANOVA indicated no significant difference among the racial/ethnic groups for kindergarteners on Self-Care skills.

Scores by household income. The Self-Care ratings of non-kindergarteners (Cohorts A and B) varied only slightly across household income groups, from 8.3 (*S.E.* = 0.3) for the lowest household income group to 8.9 (*S.E.* = 0.6) for the $40,001 to $50,000 income group (see table 57). The ratings across household income groups for kindergarteners ranged from 7.1 (*S.E.* = 0.8) for children in the lowest household income group ($20,000 or less) to 8.8 for children in both the $20,001 to $30,000 (*S.E.* = 0.8) and the more than $50,000 (*S.E.* = 0.6) income groups (see table 57). These differences in ratings for both non-kindergarteners and kindergarteners were not statistically significant.

Table 55. Mean teacher ratings of children with disabilities ages 3–5 on the Self-Care subscale of the Adaptive Behavior Assessment System II, by gender: School year 2003–04

	Total	Male	Female
Not yet in kindergarten			
Total	8.6	8.5	8.8
Cohort A (age 3)	8.2	8.1	8.3
Cohort B (age 4)	8.8	8.8	9.0
In kindergarten			
Cohort C (age 5)	8.1	7.7	9.1

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Care and Teacher Form: Self-Care," previously unpublished tabulation (April 2005).

Table 56. Mean teacher ratings of children with disabilities ages 3–5 on the Self-Care subscale of the Adaptive Behavior Assessment System II, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Not yet in kindergarten				
Total	8.6	8.4	8.2	8.6
Cohort A (age 3)	8.2	9.0	7.6	8.2
Cohort B (age 4)	8.8	8.2	8.5	8.9
In kindergarten				
Cohort C (age 5)	8.1	7.3	7.6	8.5

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Care and Teacher Form: Self-Care," previously unpublished tabulation (April 2005).

Table 57. Mean teacher ratings of children with disabilities ages 3–5 on the Self-Care subscale of the Adaptive Behavior Assessment System II, by household income: School year 2003-04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Not yet in kindergarten						
Total	8.6	8.3	8.5	8.3	8.9	8.8
Cohort A (age 3)	8.2	7.9	7.9	7.8	8.0	8.6
Cohort B (age 4)	8.8	8.5	8.8	8.6	9.1	8.9
In kindergarten						
Cohort C (age 5)	8.1	7.1	8.8	7.5	8.6	8.8

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Care and Teacher Form: Self-Care," previously unpublished tabulation (April 2005).

Adaptive Behavior Assessment System II (ABAS-II) – Self-Direction

The Self-Direction subscale measures the child's skills in independence, self-control, and personal responsibility. The Teacher/Daycare Provider Form (TDP) includes such items as child "shows interest in a toy or other object by looking at it for a few seconds" "follows an adult's request to quiet down or behave" and "looks for misplaced toys or games until he/she finds them." The Teacher Form (TF) includes such items as the child "routinely arrives at school or class on time" "works independently and asks for help only when necessary" and "stops a fun activity, without complaints, when told that time is up."

The overall mean rating for non-kindergarteners on the Self-Direction subscale was 9.3 (*S.E.* = 0.2). The mean rating of kindergarteners (Cohort C only) on the Self-Direction subscale was 8.1 (*S.E.* = 0.3).

Scores by cohort. On the ABAS-II Self-Direction subscale, children in Cohort B (*M* = 9.6, *S.E.* = 0.2) received higher ratings than did children in Cohort A (*M* = 8.7, *S.E.* = 0.2) (see table 58). This difference between the two cohorts was statistically significant.

Scores by disability. The mean Self-Direction ratings for non-kindergarteners across disability categories ranged from a low of 7.0 (*S.E.* = 0.5) for children identified as having autism to a high of 10.5 (*S.E.* = 0.2) for children identified as having a speech or language impairment (see table 59). The mean rating for children in all disability categories fell within one standard deviation of the population mean, with one exception. Non-kindergarteners identified as having autism (*M* = 7.0, *S.E.* = 0.5) fell one standard deviation below the mean.

For the total group of non-kindergarteners, children identified as having autism (*M* = 7.0, *S.E.* = 0.5) received significantly lower ratings than did children identified as having an orthopedic impairment (*M* = 9.6, *S.E.* = 0.7) or a speech or language impairment (*M* = 10.5, *S.E.* = 0.2). Children identified as having a speech or language impairment received significantly higher ratings than did children identified as having a developmental delay (*M* = 8.2, *S.E.* = 0.2).

Table 58. Mean teacher ratings of children with disabilities ages 3–5 on the Self-Direction subscale of the Adaptive Behavior Assessment System II, by age cohort: School year 2003–04

Not yet in kindergarten		In kindergarten	
Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
9.3	8.7	9.6	8.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Direction and Teacher Form: Self-Direction," previously unpublished tabulation (April 2005).

Table 59. Mean teacher ratings of children with disabilities ages 3-5 on the Self-Direction subscale of the Adaptive Behavior Assessment System II, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Not yet in kindergarten										
Total	9.3	7.0	8.2	‡	‡	‡	9.6	‡	10.5	8.6
Cohort A (age 3)	8.7	6.8	7.8	‡	‡	‡	‡	‡	9.6	8.4
Cohort B (age 4)	9.6	7.1	8.4	‡	‡	7.0	9.0	‡	10.9	8.7
In kindergarten										
Cohort C (age 5)	8.1	‡	7.3	‡	6.5	‡	‡	‡	8.7	8.2

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Direction and Teacher Form: Self-Direction," previously unpublished tabulation (April 2005).

Self-Direction ratings for kindergarteners (Cohort C only) varied somewhat across disability categories, ranging from a low mean of 6.5 (*S.E.* = 0.5) for children identified as having a learning disability to a high mean of 8.7 (*S.E.* = 0.4) for children identified as having a speech or language impairment (see table 59). Children identified as having a learning disability received significantly lower ratings than did children identified as having a speech or language impairment.

Scores by gender. Both males and females not yet in kindergarten had mean ratings within one standard deviation of the mean for the norm population (7 to 13) on the Self-Direction scale of the

ABAS-II (see table 60). The mean rating for males was 9.1 (*S.E.* = 0.2) and the mean rating for females was 9.8 (*S.E.* = 0.2). This difference was statistically significant. Among kindergarteners, males (*M* = 8.0, *S.E.* = 0.4) and females (*M* = 8.6, *S.E.* = 0.7) also had mean ratings within one standard deviation of the population mean, but no significant differences were observed.

Scores by race/ethnicity. The self-direction ratings for non-kindergarteners (Cohorts A and B) ranged from a low of 8.2 (*S.E.* = 0.6) for Black children to a high of 9.4 (*S.E.* = 0.2) for White children (see table 61). The mean rating for Hispanic non-kindergarteners was 9.2 (*S.E.* = 0.3). The difference between the mean rating for Black children and White children was statistically significant.

The ratings for kindergarteners (Cohort C) ranged from a low of 6.7 (*S.E.* = 1.1) for Black children to a high of 8.3 (*S.E.* = 0.4) for White children (see table 61). Black kindergarteners (*M* = 6.7, *S.E.* = 1.1) had a mean rating more than one standard deviation below the norm mean of 10. Hispanic children had a mean rating of 7.7 (*S.E.* = 0.6). The differences between racial/ethnic groups were not statistically significant.

Scores by household income. The mean self-direction rating for non-kindergarteners ranged from 8.6 (*S.E.* = 0.4) for children in the lowest household income group to 9.9 (*S.E.* = 0.5) for children in the $40,001 to $50,000 household income range (see table 62). Some differences by household income group were significant. Significant differences occurred between children in the lowest income group and children in the $40,001 to $50,000 group and in the highest income group. Significant differences also occurred between children in the $20,001 to $30,000 income group and those in the $40,001 to $50,000 and highest income groups.

The mean ratings for kindergarteners by household income ranged from a low of 7.0 for children in both the $20,001 to $30,000 (*S.E.* = 0.8) and $30,001 to $40,000 (*S.E.* = 0.9 groups, to a high of 8.8 (*S.E.* = 0.6) for children in the more than $50,000 income group (see table 62). These differences were not statistically significant.

Table 60. Mean teacher ratings of children with disabilities ages 3–5 on the Self-Direction subscale of the Adaptive Behavior Assessment System II, by gender: School year 2003-04

	Total	Male	Female
Not yet in kindergarten			
Total	9.3	9.1	9.8
Cohort A (age 3)	8.7	8.5	9.0
Cohort B (age 4)	9.6	9.3	10.3
In kindergarten			
Cohort C (age 5)	8.1	8.0	8.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Direction and Teacher Form: Self-Direction," previously unpublished tabulation (April 2005).

Table 61. Mean teacher ratings of children with disabilities ages 3–5 on the Self-Direction subscale of the Adaptive Behavior Assessment System II, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Not yet in kindergarten				
Total	9.3	8.2	9.2	9.4
Cohort A (age 3)	8.7	8.1	7.8	8.8
Cohort B (age 4)	9.6	8.2	9.7	9.7
In kindergarten				
Cohort C (age 5)	8.1	6.7	7.7	8.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Direction and Teacher Form: Self-Direction," previously unpublished tabulation (April 2005).

Table 62. Mean teacher ratings of children with disabilities ages 3–5 on the Self-Direction subscale of the Adaptive Behavior Assessment System II, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Not yet in kindergarten						
Total	9.3	8.6	8.7	9.2	9.9	9.8
Cohort A (age 3)	8.7	7.9	7.9	8.6	9.2	9.4
Cohort B (age 4)	9.6	9.0	9.2	9.5	10.1	10.0
In kindergarten						
Cohort C (age 5)	8.1	8.0	7.0	7.0	7.9	8.8

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Direction and Teacher Form: Self-Direction," previously unpublished tabulation (April 2005).

Motor Performance

Motor abilities are necessary for many self-care activities, including eating, dressing, doing chores, and moving around. In addition, motor skills are closely related to other areas of child development, including cognitive, psychological, and social development, and even academic success and achievement (Caldwell et al. 1997; Dale, Mills, Cole, and Jenkins 2004; Lee-Corbin, and Evans 1996).

In order to assess children's functioning in this important domain, the PEELS assessment battery included the Fine Motor and Gross Motor subscales from the Vineland Adaptive Behavior Scales Classroom Edition. Teachers are asked to rate the child's performance on a series of behaviors using a three-point scale: 1, *usually*, 2, *sometimes or partially*, and 3, *never*. Teachers select their responses from one of two columns depending on whether they observe the child performing the behavior or if their ratings are based on an estimate. The children's scores on the two subscales are summed and converted into one standardized motor skills score. The standard scores are based on a distribution with a mean of 100 and a standard deviation of 15. Norms for the Vineland Motor Skills Domain were developed only for children ages 3 to 6, since motor development levels off after that age.

The overall mean rating of children with disabilities on the Motor Skills subscale of the Vineland was 94.3 (*S.E.* = 0.9). This was well within one standard deviation of the mean (85 to 115) for this scale.

Scores by cohort. Mean ratings for Cohorts A, B, and C on the Vineland Motor Skills scale were all below the population mean but within one standard deviation of it. The differences among cohorts were not statistically significant (see table 63).

Scores by disability. When looking at motor ratings across disability categories, the overall mean for preschoolers identified as having an orthopedic impairment (*M* = 72.5, *S.E.* = 4.6), an other health impairment (*M* = 76.0, *S.E.* = 4.4), or a low-incidence disability (*M* = 81.0, *S.E.* = 5.3) was more than one standard deviation below the population mean of 85 to 115. Children identified as having mental retardation (*M* = 68.0, *S.E.* = 2.7) had a mean rating more than two standard deviations below that of the norm population. Children in the remaining five disability categories had mean ratings well within a

Table 63. Mean teacher ratings of children with disabilities ages 3–5 on the Motor Skills subscale of the Vineland Adaptive Behavior Scales, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
94.3	92.7	93.8	95.5

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (April 2005).

standard deviation of the population mean (AU, *M* = 86.2, *S.E.* = 2.9; DD, *M* = 89.4, *S.E.* = 1.8; ED, *M* = 98.8, *S.E.* = 4.8; LD, *M* = 90.1, *S.E.* = 4.3; SLI = *M* = 104.2, *S.E.* = 1.0) (see table 64). However, please note that the distribution of scores for children in a number of disability categories was skewed, suggesting that children at the extremes pulled the means for the entire group either up or down. This was true for children in Cohort A who were identified as having autism (*Mdn* = 80.9), a learning disability (*Mdn* = 108.6), or a low-incidence disability (*Mdn* = 76.7); for children in Cohort B who were identified as having an orthopedic impairment (*Mdn* = 62.9), an other health impairment (*Mdn* = 61.7), or a low-incidence disability (*Mdn* = 64.2); and for children in Cohort C who were identified as having autism (*Mdn* = 76.3), an emotional disturbance (*Mdn* = 88.1), or an other health impairment (*Mdn* = 70.7).

Significance tests were conducted on the mean motor skills ratings of the total group across disability categories. These tests indicated that the mean performance of children identified as having a speech or language impairment (*M* = 104.2, *S.E.* = 1.0) was statistically significantly higher than that of children identified as having the following impairments: autism (*M* = 86.2, *S.E.* = 2.9), a developmental delay (*M* = 89.4, *S.E.* = 1.8), a learning disability (*M* = 90.1, *S.E.* = 4.3), mental retardation (*M* = 68.0, *S.E.* = 2.7), an orthopedic impairment (*M* = 72.5, *S.E.* = 4.6), an other health impairment (*M* = 76.0, *S.E.* = 4.4), or a low-incidence disability (*M* = 81.0, *S.E.* = 5.3). Similarly, children identified as having an emotional disturbance (*M* = 98.8, *S.E.* = 4.8) had significantly higher mean motor ratings than children identified as having autism, mental retardation, an orthopedic impairment, an other health impairment, or a low-incidence disability.

Table 64. Mean teacher ratings of children with disabilities ages 3-5 on the Motor Skills subscale of the Vineland Adaptive Behavior Scales, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	94.3	86.2	89.4	98.8	90.1	68.0	72.5	76.0	104.2	81.0
Cohort A (age 3)	92.7	87.6	86.9	‡	118.5	64.9	‡	75.0	101.2	88.5
Cohort B (age 4)	93.8	85.4	90.0	‡	104.6	66.5	72.4	70.0	106.4	75.0
Cohort C (age 5)	95.5	86.3	90.9	94.7	84.5	69.9	‡	80.7	103.8	83.9

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

The mean motor skills ratings of children identified as having mental retardation (*M* = 68.0, *S.E.* = 2.7) was also significantly lower than that of children identified as having autism (*M* = 86.2, *S.E.* = 2.9), a developmental delay (*M* = 89.4, *S.E.* = 1.8), a learning disability (*M* = 90.1, *S.E.* = 4.3), or a low-incidence disability (*M* = 81.0, *S.E.* = 5.3). Children identified as having an orthopedic impairment (*M* = 72.5, *S.E.* 4.6) performed significantly lower than children identified as having autism, a developmental delay, or a learning disability. Likewise, the mean motor rating of children identified as having an other health impairment (*M* = 76.0, *S.E.* = 4.4) was significantly lower than that of children identified as having a developmental delay, or a learning disability.

Scores by gender. Males and females fell well within a standard deviation of the population mean (85 to 115) on the Vineland Motor Skills scale. Males had a mean rating of 93.8 (*S.E.* = 0.9) and females had a mean rating of 95.3 (*S.E.* = 1.6) (see table 65), a difference that was not statistically significant.

Scores by race/ethnicity. Motor skill ratings across racial/ethnic groups ranged from a mean of 88.0 (*S.E.* = 2.7) for Black children to 96.4 (*S.E.* = 1.1) for White children (see table 66). The mean for White children was significantly higher than the mean for Black children and Hispanic children.

Table 65. Mean teacher ratings of children with disabilities ages 3–5 on the Motor Skills subscale of the Vineland Adaptive Behavior Scales, by gender: School year 2003–04

	Total	Male	Female
Total	94.3	93.8	95.3
Cohort A (age 3)	92.7	92.0	94.5
Cohort B (age 4)	93.8	94.1	93.2
Cohort C (age 5)	95.5	94.5	97.8

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (April 2005).

Table 66. Mean teacher ratings of children with disabilities ages 3–5 on the Motor Skills subscale of the Vineland Adaptive Behavior Scales, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	94.3	88.0	90.2	96.4
Cohort A (age 3)	92.7	90.9	89.8	94.3
Cohort B (age 4)	93.8	86.0	90.9	95.2
Cohort C (age 5)	95.5	88.5	89.6	98.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (April 2005).

Scores by household income. Mean ratings for children in all household income groups were within a standard deviation of the norm population on the Motor Skills scale. Means ranged from 92.6 (*S.E.* = 1.9) for children in the $20,000 or less income group to 96.1 (*S.E.* = 2.5) for children in the $30,001 to $40,000 income group (see table 67). None of the differences across groups were statistically significant.

Alternate Assessment

The ABAS-II was used as the alternate assessment for children who were not able to complete the direct assessment. Assessors made the decision about the child's ability to participate in the direct assessment based on an interview with the child's teacher, service provider, or parent. An alternate assessment was given if the child could not follow simple directions, had a visual impairment that would

Table 67. Mean teacher ratings of children with disabilities ages 3–5 on the Motor Skills subscale of the Vineland Adaptive Behavior Scales, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	94.3	92.6	94.8	96.1	95.0	94.7
Cohort A (age 3)	92.7	88.7	93.1	95.4	88.2	96.5
Cohort B (age 4)	93.8	91.9	91.9	95.1	94.7	94.4
Cohort C (age 5)	95.5	95.1	97.6	98.0	98.0	93.9

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (April 2005).

interfere with test administration, or if the child began the direct assessment but could not meaningfully participate due to a disability. Children's teachers/day care providers completed either the ABAS-II TDP Form or the ABAS-II TF, depending on the child's grade. Children in preschool or not in school were assessed using the TDP Form. Children in kindergarten or first grade were assessed using the TF. In all, 338 children participated in the alternate assessment using the ABAS-II TDP. The sample size prohibited analysis by disability category. Seventeen children in kindergarten or first grade were assessed using the TF. These data were not reported because of the small sample size.

Three adaptive domain composite scores (conceptual, practical, and social) are created from the nine subscales in the ABAS-II. The conceptual domain composite includes the communication, functional (pre) academics, and self-direction subscales. The practical domain composite includes community use, school living, health and safety, and self-care subscales. The social domain composite includes the leisure and social subscales.

Within each subscale, teachers rate how frequently their children exhibit a series of behaviors on a four-point scale. The scale points are labeled as follows: 0, *Is not able*; 1, *Never when needed*; 2, *Sometimes when needed*; and 3, *Always when needed*. Each of the three adaptive subscales has a mean of 100 and a standard deviation of 15. Although the ABAS-II was used as the alternate assessment in PEELS, its norms were developed on a general population.

Children who participated in the alternate assessment often averaged more than three standard deviations below the population mean on the conceptual, practical, and social domain composites, with similar mean scores for the total group in all three domains (Conceptual: *M* = 57.1, *S.E.* = 1.3; Practical: *M* = 55.5, *S.E.* = 1.2; and Social: *M* = 57.0, *S.E.* = 0.9). This pattern was consistent across age cohorts (see tables 68, 69, and 70). This finding suggests that there is a subgroup of preschoolers with disabilities whose performance is far below that of the normed population. Their relatively low performance serves as a reminder that results from the direct assessment do not reflect the knowledge and skills of all preschoolers with disabilities but rather only a select subgroup of those children.

Table 68. Mean teacher ratings of children with disabilities ages 3–5 in preschool or not in school who participated in an Alternate Assessment: ABAS-II—Conceptual Domain Composite score, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
57.1	61.4	55.8	51.1

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Conceptual Domain Composite, Teacher/Daycare Provider Form: subscales Communication, Functional Pre-Academics, and Self-Direction," previously unpublished tabulation (April 2005).

Table 69. Mean teacher ratings of children with disabilities ages 3–5 in preschool or not in school who participated in an Alternate Assessment: ABAS-II—Practical Domain Composite score, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
55.5	61.2	53.1	49.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Practical Domain Composite, Teacher/Daycare Provider Form: subscales School Living, Health and Safety, and Self-Care," previously unpublished tabulation (April 2005).

Table 70. Mean teacher ratings of children with disabilities ages 3–5 in preschool or not in school who participated in an Alternate Assessment: ABAS-II—Social Domain Composite score, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
57.0	61.0	54.5	54.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Total *N* may not equal the sum of *n*'s for all subgroups because of missing data.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Social Domain Composite, Teacher/Daycare Provider Form: subscales Leisure and Social," previously unpublished tabulation (April 2005).

Summary

Although all data in this report are preliminary, the following patterns were observed. In the areas of emerging literacy, early math proficiency, social behavior, and motor performance, preschoolers with disabilities typically performed within one standard deviation of the population mean. Some variations in performance were evident based on age cohort, particularly in the early literacy and social behavior areas. However, the differences did not present a clear pattern of performance. The mean score on the Letter-Word Identification subtest was higher for children in Cohorts A and B than for those in Cohort C. On the PKBS-2 Social Skills scale, children in Cohort C had the highest scores. The mean ratings for children in Cohort A were significantly lower than the ratings for children in Cohort B for the two functional skill measures from the ABAS-II (Self-Care and Self-Direction).

The data also revealed several patterns in performance by disability classification. The mean performance for children identified as having a speech or language impairment was often significantly higher than the mean performance for children identified as having other disabilities. Similarly, children identified as having an emotional disturbance had scores on the PPVT, Applied Problems, Quantitative Concepts, and Vineland Motor Skills subtests that were close to the population mean. However, higher mean ratings on the PKBS-2 Problem Behaviors scale, which signify more problem behaviors, suggest that although children identified as having an emotional disturbance may have near average early academic performance, they had more problem behaviors than children identified with several other disabilities.

Mean scores for children identified as having mental retardation were often significantly lower than mean scores for children identified has having other disabilities. In fact, the mean performance of preschoolers identified as having mental retardation fell more than two standard deviations below the norm mean of 100 on the PPVT, Social Skills, and Motor Skills subtests and more than one standard deviation below the norm mean for Quantitative Concepts.

Analyses by race/ethnicity showed consistently higher scores for White children than for Black or Hispanic children. This was true for Letter-Word Identification, PPVT, Applied Problems, Quantitative Concepts, PKBS-2 Social Skills, and Vineland Motor skills scales. In addition, for virtually every assessment, PEELS documented differences in preschoolers' performance based on household income.

For children not able to complete the direct assessment, an alternate assessment was used. It focused on adaptive behavior skills and was normed to a general population. The 11 percent of children who took the alternate assessment, who were either in preschool or not in school, scored significantly below the general population mean.

References

Bielinski, J., Sheinker, A., & Ysseldyke, J. (2003). Varied opinions on how to report accommodated test scores: Findings based on CTB/McGraw-Hill's framework for classifying accommodations (Synthesis Report 49). Minneapolis, MN: University of Minnesota, National Center on Educational Outcomes. Retrieved June 20, 2006, from the World Wide Web: http://education.umn.edu/NCEO/OnlinePubs/Synthesis49.html

Bowman, B.T., Donovan, S., and Burns, S., eds. (2001). Eager to Learn: Educating Our Preschoolers. Report of the National Research Council, Committee on Early Childhood Pedagogy, Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academies Press.

Burchinal, M.R., Peisner-Feinberg, E., Pianta, R., and Howes, C. (2002). Development of academic skills from preschool through second grade: Family and classroom predictors of developmental trajectories. *Journal of School Psychology, 10,* 415-436.

Caldwell, T.H., Sirvis, B.P., Still, J., Still, M., Schwab, N., Jones, J., et al. (1997). Students Who Require Medical Technology in School. In S. Porter, M. Haynie, T. Bierle, T. Heintz, and J. Palfrey (Eds.), *Children and Youth Assisted by Medical Technology in Educational Settings* (pp. 3-18). Baltimore: Paul H. Brookes.

Carrow-Woolfolk, E. (1995). Oral and Written Language Scales: Listening Comprehension and Oral Expression. Circle Pines, MN: American Guidance Service.

Clay, M.E. (1985). *Concepts About Print*. Westport, CT: Greenwood Publishing.

Connor, C.K. (1990). *Conners' Rating Sclaes Manual*. North Tonawanda, NY: Multi-Health Systems.

Council for Exceptional Children. (2000). *Making Assessment Accommodations: A Toolkit for Educators*. Reston, VA: Author.

Dale, P.S., Mills, P.E., Cole, K.N., and Jenkins, J.R. (2004). When Paths Diverge: "Errors of Prediction" from Preschool Test Scores to Later Cognitive and Academic Measures. *Journal of Special Education, 37*: 237-248.

Danaher, J., Kraus, R., Armijo, C., and Hipps, C. (2003). *Section 619 Profile*. Chapel Hill, NC: National Early Childhood Technical Assistance Center.

Duncan, S.E. and De Avila, E.A. (1998). *preLAS 2000 Examiner's Manual, English Forms C and D*. Monterey, CA: CTB McGraw-Hill.

Dunn, L.M., and Dunn, L.M. (1997). *Peabody Picture Vocabulary Test-Third Edition*. Circle Pines, MN: American Guidance Services.

ECRI-MGD (Early Childhood Research Institute on Measuring Growth and Development). (2001). *Individual Growth and Development Indicators*. Minneapolis, MN: Center for Early Education and Development, University of Minnesota.

ECRI-MGD (Early Childhood Research Institute on Measuring Growth and Development). (1998, April). *Research and Development of Individual Growth and Development Indicators for Children Between Birth to Age Eight*. Minneapolis, MN: Center for Early Education and Development, University of Minnesota.

Gresham, F.M. & Elliott, S.N. (1990). *Social Skills Rating System*. Circle Pines, MN: American Guidance Service.

Hack, M., Flannery, D.J., Schluchter, M., Cartar, L., Borawski, E., and Klein, N. (2002). Outcomes in Young Adulthood for Very-Low-Birth-Weight Infants. *The New England Journal of Medicine, 346*(3): 149-157.

Hebbeler, K., Spiker, D., Mallik, S., Scarborough, A., and Simeonsson, R. (2004). *Demographic Characteristics of Children and Families Entering Early Intervention – Executive Summary* (NEILS Data Report #3). Menlo Park, CA: SRI International.

Hebbeler, K., Spiker, D., Mallik, S., Scarborough, A., and Simeonsson, R. (2003). *Demographic Characteristics of Children and Families Entering Early Intervention* (NEILS Data Report #3). Menlo Park, CA: SRI International.

Hebbeler, K., Wagner, M., Spiker, D., Scarborough, A., Simeonsson, R., and Collier, M. (2001). *A First Look at the Children and Families Entering Early Intervention Services.* Menlo Park, CA: SRI International.

Huffman, L., Mehlinger, S., and Kerivan, A. (2000). *Research on the Risk Factors for Early School Problems and Selected Federal Policies Affecting Children's Social and Emotional Development and Their Readiness for School.* Bethesda, MD: The Child and Mental Health Foundation and Agencies Network, National Institute of Mental Heath, National Institutes of Health.

Good, R.H. and Kaminski, R. (2000). *Dynamic Indicators of Basic Early Literacy Skills.* Longmont, CO: Sopris West.

Kaufman, A.S., and Kaufman, N.L. (1993). *Kaufman Adolescent and Adult Intelligence Test*. Circle Pines, MN: American Guidance Service.

Kaufman, A.S., and Kaufman, N.L. (1990). *Kaufman Brief Intelligence Test*. Circle Pines, MN: American Guidance Service.

Kaufman, A.S., and Kaufman, N.L. (1985). *Kaufman Test of Educational Achievement*. Circle Pines, MN: American Guidance Service.

Lambert, N., and Windmiller, M. (1981). *AAMD Adaptive Behavior Scale – School Edition*. Monterey, CA: Publishers Test Service.

Lee-Corbin, H., and Evans, R. (1996). Factors Influencing Success or Underachievement of the Able Child. *Early Child Development and Care, 115*: 133-144.

Luster, T. and McAdoo, H. (1996). Family and child influences on educational attainment: A secondary analysis of the High/Scope Perry Preschool data. *Developmental Psychology*, 32, 26-39.

Marder, C., and Wagner, M. (2002). Demographic Characteristics of Elementary and Middle School Students Receiving Special Education. In M. Wagner, C. Marder, J. Blackorby, and D. Cardosa. *The Children We Serve: The Demographic Characteristics of Elementary and Middle School Students with Disabilities and Their Households* (pp. 7-14). Menlo Park, CA: SRI International.

Marder, C., and Cox, K. (1991). More Than a Label: Characteristics of Youth With Disabilities. In M. Wagner, L. Newman, R. D'Amico, E.D. Jay, P. Butler-Nalin, C. Marder, and R. Cox. *Youth with Disabilities: How Are They Doing?* (pp. 2-1—2-36). Menlo Park, CA: SRI International.

Mather, N., and Woodcock, R.W. (2001). Examiner's Manual. *Woodcock-Johnson III Tests of Achievement*. Itasca, IL: Riverside Publishing.

Matson, J.L., Esvelt-Dawson, K. & Kazdin, A.E. (1983). Validation methods for assessing social skills in children. *Journal of Clinical Psychology, 12*, 175-180.

McConnell, S.R., Proest, J.S., Davis, S.D., and McEvoy, M.A. (2002). Best practices in measuring growth and development for preschool children. In A. Thomas & J. Grimes (Eds.), Best Practices in School Psychology (4^{th} ed., Vol. 2, pp. 1231-1246). Washington, DC: National Association of School Psychologists.

McGrew, K.S. and Woodcock, R.W. (2001). Technical Manual. *Woodcock-Johnson-III.* Itasca, IL: Riverside Publishing

Merrell, K.W. (2002). *Preschool and Kindergarten Behavior Scales, Second Edition.* Austin, TX: PRO-ED.

Merrell, K.W. (1995) Relationships among early childhood behavior rating scales: Convergent and discriminant construct validity of the Preschool and Kindergarten Behavior Scales. *Early Education and Development, 6*, 253-264.

Merrell, K.W. (1993). *School Social Behavior Scales*. Eugene, OR: Assessment-Intervention Resources.

Missall, K.N. and McConnell, S.R. (2004). *Psychometric Characteristic of Individual Growth and development Indicators: Picture Naming, Rhyming, and Alliteration*. Minneapolis: Center for Early Education and Development, University of Minnesota.

National Center for Health Statisitics. (2002). *Faststats From A to Z.* Retrieved July 2005 from, http://www.cdc.gov/ nchs/fastats/birthwt.htm.

National Council of Teachers of Mathematics. (2000). *Principles and Standards For School Mathematics.* Reston, VA.

National Council of Teachers of Mathematics and National Association for the Education of Young Children. (2002, April). *Early Childhood Mathematics: Promoting Good Beginnings*. Reston, VA: National Council of Teachers of Mathematics.

National Reading Panel. (2000). *Teaching Children to Read: An Evidence-Based Assessment of the Scientific Research Literature on Reading and its Implications for Reading Instruction*. Washington, DC: National Institute of Child Health and Human Development.

National Research Council. (2002). *Minority Students in Special and Gifted Education.* Washington, DC: National Academy Press.

Peth-Pierce, R. (2002). *A Good Beginning, Sending America's Children to School with the Social and Emotional Competence They Need to Succeed*. Bethesda, MD: The Child Mental Health Foundations and Agencies Network, National Institute of Mental Health, National Institutes of Health.

Pollack, J.M., Rock, D.A., Weiss, M.J., Atkins-Burnette, S., Tourangeau, K., West, J., and Germino-Hauskins, E. (2005). *ECLS-K Class of 1998-99 Psychometric Report for Third Grade*. Washington, DC: U.S. Department of Education.

Pong, S., Dronkers, J., and Hampden-Thompson, G. (2003). Family policies and children's school achievement in single- versus two-parent families. *Journal of Marriage and the Family, 65*, 681-699.

Ramey, C.T. and Ramey, S.L. 2002. Early childhood education: From efficacy research to improved practice. Retrieved June 21, 2005, from http://www.ed.gov/teachers/how/early/cognitivedevsummit02/page_pg2.html#early

Ricciuti, N.H. (2004). Single parenthood, achievement, and problem behavior in White, Black, and Hispanic children. *The Journal of Educational Research, 97*, 196-206.

Rice, J.K. (2003). *Teacher Quality: Understanding the Effectiveness of Teacher Attributes*. Washington, DC: Economic Policy Institute.

Rivkin, S.G., Hanushek, E.A., & Kain, J.F. (2000). Teachers, schools, and academic achievement. Retreived May 21, 2003 from, www.utdallas.edu/research/greenctr/papers/pdfpapers/paper06.pdf.

Robinson, N.M., Weinberg, R.A., Redden, D., Ramey, S.L., & Ramey, C.T. (1998). Family factors associated with high academic competence among former Head Start children. *Gifted Child Quarterly, 42*, 148-156.

Roid, G.H., & Miller, L.J. (1995, 1997). Leiter International Performance Scale-Revised. Wood Dale, IL: Stoelting Co.

Roid, G.H., & Miller, L.J. (1997). Leiter International Performance Scale-Revised: Examiner's Manual. In G.H. Roid and L.J. Miller, Leiter International Performance Scale-Revised. Wood Dale, IL: Stoelting Co.

Shonkoff, J.P., and Phillips, D.A. (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, DC: National Academies Press.

Spiker, D., Mallik, S., Hebbeler, K., Scarborough, A., Simeonsson, R., and Bailey, D. (2004). *Birth History and Health Status of Children Entering Early Intervention*. Menlo Park, CA: SRI International.

Torgesen, J.K. (2002). The Prevention of Reading Difficulties. *Journal of School Psychology, 40:* 7-26.

Torgesen, J.K. (1998, Spring/Summer). Catch them before they fall. *American Educator*, Spring/Summer: 32-39.

Torgesen, J.K., and Burgess, S.R. (1998). Consistency of Reading-Related Phonological Processes Throughout Early Childhood: Evidence From Longitudinal, Correlational, and Instructional Studies. In J. Metsala and L. Ehri (Eds.), *Word Recognition in Beginning Reading* (pp. 16–188). Hillsdale, N. J.: Erlbaum.

Torgesen, J.K., Rashotte, C.A., and Alexander, A. (2001). Principles of Fluency Instruction in Reading: Relationships With Established Empirical Outcomes. In M. Wolf (Ed.), *Dyslexia, Fluency, and the Brain* (pp. 333–355). Parkton, M. D.: York Press.

Trohanis, P.L. (2002). Progress in Providing Services to Young Children With Special Needs and Their Families. *NECTAC Notes, 12*, 3.

U.S. Census Bureau. (2004a). *America's Families and Living Arrangements: 2004.* Retrieved July 5, 2005 from, http://www.census.gov/population/www/ socdemo/hh-fam/cps2004.html.

U.S. Census Bureau. (2004b). *Current Population Survey Annual Demographic Survey March Supplement*. Retrieved August 9, 2005 from, http://pubdb3.census.gov/macro/032004/ faminc/ new03_001.htm.

U.S. Census Bureau. (2002). *Statistical Abstract of the United States Retrieved July 5, 2005.* Retrieved July 5, 2005 from, http://www.census.gov/prod/www/ statistical-abstract-04.html.

U.S. Census Bureau (2003). *Current Population Survey, Annual Social and Economic Supplement.* Retrieved June 3, 2006 from http://www.census.gov/hhes/income/histinc/h05.html.

U.S. Department of Education Office of Special Education and Rehabilitative Services. (2002). *A New Era: Revitalizing Special Education for Children and Their Families*. Washington, D.C.

U.S. Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs. (2005). *25th Annual (2003) Report to Congress on the Implementation of the Individuals with Disabilities Education Act, 1*, Washington, DC: U.S. Government Printing Office.

U.S. Department of Health and Human Services (US HHS), Administration for Children and Families (2005, May). *Head Start Impact Study: First Year Findings*. Washington, DC: U.S. Government Printing Office.

U.S. Department of Health and Human Services (US HHS), Administration for Children and Families, Head Start Bureau (2005, February). *Report to Congress: Assessment of Children in Head Start Programs.* Washington, DC: U.S. Government Printing Office.

Wagner, M.M. and Blackorby, J. (2004). *Overview of findings from Wave 1 of the Special Education Elementary Longitudinal Study (SEELS*). Menlo Park, CA: SRI International.

Wagner, M., and Blackorby, J. (2002). The Children We Serve. In M. Wagner, C. Marder, J. Blackorby, and D. Cardosa. *The Children We Serve: The Demographic Characteristics of Elementary and Middle School Students with Disabilities and Their Households* (pp. 45-48). Menlo Park, CA: SRI International.

Weschsler, D. (1992). Wechsler Individual Achievement Test. San Antonio, TX: Psychological Corporation.

Weschsler, D. (1991). Wechsler Intelligence Scale for Children-Third Edition. San Antonio, TX: Psychological Corporation.

Westat. (2002). *Wesvar version 4.2*. Rockville, MD: author.

Westat. (2002). Service Provider's Level of Education, by Type of Service Provider. Retrieved October 25, 2005 from, www.spense.org.

Wood, N.S., Marlow, N., Costeloe, K., Gibson, A.T., and Wilkinson, A.R. (2000). Neurological and Developmental Disability After Extremely Preterm Birth. *The New England Journal of Medicine, 343*(6): 378-384.

Woodcock, R.W., McGrew, K.S., and Mather, N. (2001). *Woodcock-Johnson III Tests of Achievement*. Itasca, IL: Riverside Publishing.

Yeung, W.J., Linver, M.R., and Brooks-Gunn, J. (2002). How money matters for young children's development: Parental investment and family processes. *Child Development, 73*(6), 1861-1879.

Zimmerman, I.L., Steiner, V.G., & Pond, R.E. (1992). *Preschool Language Scales-Third Edition*. San Antonio, TX: The Psychological Corporation.

Appendix A: Standard Error Tables

EDITOR'S NOTE: The tables in Appendix A contain standard errors for the corresponding tables in the main body of the report. For example, table A-3 contains the standard errors for table 3.

Table A-3. Standard errors for the percentage of children with disabilities ages 3–5 in various household income groups, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
$20,000 or less	2.4	5.9	3.6	1.9
$20,001 to $30,000	1.0	3.1	2.7	1.3
$30,001 to $40,000	1.1	2.1	1.6	1.5
$40,001 to $50,000	1.1	1.7	1.6	1.4
More than $50,000	2.4	2.6	2.9	2.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (June 2005).

Table A-4. Standard errors for the percentage of children with disabilities ages 3–5 who lived with different types of parents/guardians, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Biological parents	1.6	4.2	2.6	1.8
Biological mother or father only	1.4	4.6	2.5	1.5
Biological mother or father and other mother or father	0.8	1.7	1.2	1.1
Adoptive parent(s)	0.6	2.3	1.5	0.6
Other	0.5	1.8	0.5	0.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (June 2005).

Table A-5. Standard errors for the percentage of children with disabilities ages 3–5 born three or more weeks prematurely, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Yes	1.7	7.1	3.4	‡	9.4	6.0	10.2	7.7	1.6	8.8
No	1.7	7.1	3.4	‡	9.4	6.0	10.2	7.7	1.6	8.8

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (June 2005).

Table A-6. Standard errors: Of children with disabilities ages 3–5 born three or more weeks prematurely, the average number of weeks premature, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Mean	0.3	1.0	0.5	0.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (June 2005).

Table A-7. Standard errors: Of children with disabilities ages 3–5 born three or more weeks prematurely, the average number of weeks premature, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Mean	0.3	0.8	0.5	‡	1.4	1.3	1.5	1.2	0.3	1.5

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (June 2005).

Table A-8. Standard errors for the percentage of preschoolers and kindergarteners ages 3–5 with various primary disabilities, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Autism	1.4	4.6	2.5	1.9
Deaf/blindness	‡	‡	‡	‡
Deafness	‡	‡	‡	‡
Developmental delay	2.0	8.0	6.3	3.4
Emotional disturbance/behavior disorder	0.3	‡	‡	0.4
Hearing impairment	0.2	‡	‡	‡
Learning disability	0.6	3.3	1.6	1.0
Mild mental retardation	0.5	‡	‡	0.8
Moderate/severe mental retardation	0.7	‡	2.8	0.9
Multiple disabilities	0.7	‡	‡	0.7
Orthopedic impairment	0.5	‡	‡	0.8
Other health impairment	0.7	‡	‡	1.2
Speech or language impairment*	2.7	6.0	7.4	4.2
Traumatic brain injury	‡	‡	‡	‡
Visual impairment/blindness	‡	‡	‡	‡
Other	0.6	‡	‡	0.9

‡ Reporting standards not met.
* $p < .05$.
NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table A-9. Standard errors for the percentage of preschoolers and kindergarteners ages 3–5 with various primary disabilities, by age cohort: School year 2003–04

	Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
Autism	1.4	2.0	2.5	1.4
Deaf/blindness	‡	‡	‡	‡
Deafness	‡	‡	‡	‡
Developmental delay	2.0	2.9	2.6	2.5
Emotional disturbance/behavior disorder	0.3	‡	0.3	0.6
Hearing impairment	0.2	‡	‡	‡
Learning disability	0.6	‡	0.4	1.4
Mild mental retardation	0.5	0.9	‡	0.7
Moderate/severe mental retardation	0.7	0.7	0.7	1.3
Multiple disabilities	0.7	‡	‡	‡
Orthopedic impairment	0.5	‡	1.0	‡
Other health impairment	0.7	0.9	0.9	1.3
Speech or language impairment*	2.7	2.6	3.5	3.6
Traumatic brain injury	‡	‡	‡	‡
Visual impairment/blindness	‡	‡	‡	‡
Other	0.6	0.8	1.0	1.2

‡ Reporting standards not met.
* $p < .05$.
NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table A-10. Standard errors: For children with disabilities ages 3–5 who received special education or related services through the public schools, the percentage who received various types of services, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Speech or language therapy	1.0	2.3	2.0	1.1
Occupational therapy	2.1	4.7	3.0	2.7
Physical therapy	1.3	4.7	2.3	1.6
Special education in school*	2.0	4.3	3.4	2.1
Tutoring for learning problems*	1.4	4.6	2.6	1.4
Other	0.7	‡	1.0	1.1

‡ Reporting standards not met.
* $p < .05$.
NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), “Parent Interview”, previously unpublished tabulation (June 2005).

Table A-11. Standard errors: For children with disabilities ages 3–5 who received special education or related services through the public schools, the percentage who received various types of services, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Speech or language	1.0	1.9	2.2	3.0	2.1	1.2
Occupational therapy	2.1	2.6	3.5	4.6	4.0	3.3
Physical therapy	1.3	2.7	2.8	2.8	3.8	2.0
Special education in	2.0	4.4	3.2	4.5	4.2	2.7
Tutoring for learning problems*	1.4	3.6	2.9	3.1	2.3	1.6
Other	0.7	0.6	1.5	3.6	1.5	1.2

* $p < .05$.
NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (June 2005).

Table A-12. Standard errors: For children with disabilities ages 3–5 who received special education or related services through the public schools, the percentage who received various types of services, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Speech or language therapy	1.0	5.1	2.3	11.0	6.5	3.4	‡	6.2	0.5	7.2
Occupational therapy*	2.1	6.7	4.1	14.9	8.1	9.1	‡	8.8	1.6	8.2
Physical therapy	1.3	6.1	3.5	‡	6.5	9.6	‡	8.9	1.0	9.1
Special education in school*	2.0	5.4	2.9	14.0	9.2	9.1	‡	7.6	1.9	7.7
Tutoring for learning problems*	1.4	6.2	2.7	‡	10.2	7.0	‡	10.0	1.4	7.9

* $p < .05$.
‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (June 2005).

Table A-13. Standard errors for the percentage of preschoolers and kindergarteners with disabilities ages 3–5 whose IEP goals and objectives were addressed in regular classes using various service delivery models: School year 2003–04

	Total
Not applicable – the child is not in a regular education classroom.	1.5
Not applicable – this child's IEP goals are not addressed in the regular education classroom; they are addressed elsewhere.	1.9
The special education teacher or aide works individually with the child on special tasks.	1.8
The regular education teacher or aide works individually with the child on special tasks.	1.8
Related services personnel work individually with the child on special tasks.	2.1
Related services personnel work with the child in group activities.	2.3
The goals and objectives are embedded in common classroom activities.	1.8

NOTE: IEP = Individualized Education Plan.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Column percentages do not sum to 100 because respondents were asked to select one or more responses, as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table A-14. Standard errors for the percentage of preschoolers with disabilities whose teachers completed various educational degrees: School year 2003–04

	Total
High school diploma or GED	0.6
Associate degree	1.3
Bachelor's degree	2.1
Graduate degree	2.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table A-15. Standard errors for the percentage of preschoolers with disabilities whose teachers held credentials in various disciplines: School year 2003–04

	Total
Child development	1.3
Elementary/secondary education	2.6
Early childhood education	2.1
Early childhood special education	2.8
Special education	2.4
Speech or language pathology	1.9
Other	1.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table A-16. Standard errors for the percentage of preschoolers and kindergarteners with disabilities ages 3–5 whose teachers or programs used various strategies to help students transition into new schools, programs, or classrooms, by age cohort: School year 2003–04

	Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
Received children's previous records.*	2.7	4.0	4.4	‡
Sending programs provided information about children.*	2.4	3.7	4.7	‡
Provided parents with written information.	2.6	4.4	4.9	‡
Called the children's parents.*	2.8	2.7	3.2	‡
Parents/guardians encouraged to meet new staff.*	1.9	1.1	1.7	‡
Children's families visited the classroom or school.	2.1	2.6	3.1	‡
Visited children's home.*	4.1	5.1	7.3	‡
Visited children's previous settings.	2.8	3.4	5.0	‡
Met with staff of sending programs.	3.0	5.0	6.1	‡
Participated in children's IEP development.*	2.8	3.0	3.2	‡
Developed child-specific preparatory strategies.*	2.7	3.7	4.0	‡
Other	0.6	1.1	1.4	‡

‡ Reporting standards not met.
* $p < .05$.
NOTE: IEP = Individualized Education Plan.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
Detail may not sum to totals because of rounding.
Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table A-17. Standard errors for the percentage of preschoolers and kindergarteners with disabilities ages 3–5 whose teachers characterized transition supports for children and their families in various ways: School year 2003–04

	Total
Extremely adequate	2.7
Somewhat adequate	2.0
Not very adequate	2.0
Transition planning and support were not needed for this child or family	1.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table A-18. Standard errors for the percentage of kindergarteners with disabilities whose teachers characterized the children's transition into kindergarten classes in various ways: School year 2003–04

	Total
Very easy	5.5
Somewhat easy	5.3
Somewhat difficult	2.3
Very difficult	2.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Kindergarten Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table A-19. Standard errors for the mean performance of children with disabilities ages 3-5 on Woodcock-Johnson III Letter-Word Identification, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
0.8	1.4	1.0	1.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Letter-Word Identification," previously unpublished tabulation (April 2005).

Table A-20. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Letter-Word Identification, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	0.8	6.4	1.3	3.5	3.1	5.1	3.1	4.6	0.8	3.1
Cohort A (age 3)	1.4	5.9	2.6	‡	‡	‡	10.8	10.4	1.7	5.1
Cohort B (age 4)	1.0	3.0	1.6	‡	4.2	6.1	3.9	7.1	1.1	5.8
Cohort C (age 5)	1.0	12.9	1.7	4.3	3.7	7.7	‡	4.3	0.8	3.0

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Letter-Word Identification," previously unpublished tabulation (April 2005).

Table A-21. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Letter-Word Identification, by gender: School year 2003-04

	Total	Male	Female
Total	0.8	0.9	0.8
Cohort A (age 3)	1.4	1.6	1.9
Cohort B (age 4)	1.0	1.3	1.2
Cohort C (age 5)	1.0	1.2	1.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Letter-Word Identification," previously unpublished tabulation (April 2005).

Table A-22. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Letter-Word Identification, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	0.8	1.5	1.3	0.9
Cohort A (age 3)	1.4	4.7	3.2	1.5
Cohort B (age 4)	1.0	1.8	1.6	1.1
Cohort C (age 5)	1.0	1.9	1.4	1.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Letter-Word Identification," previously unpublished tabulation (April 2005).

Table A-23. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Letter-Word Identification, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	0.8	1.0	1.0	1.5	2.0	1.6
Cohort A (age 3)	1.4	2.0	3.1	2.3	4.7	2.1
Cohort B (age 4)	1.0	1.4	1.5	2.6	3.0	1.5
Cohort C (age 5)	1.0	1.3	1.5	2.0	3.0	3.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Letter-Word Identification," previously unpublished tabulation (April 2005).

Table A-24. Standard errors for the mean performance of children with disabilities ages 3–5 on Peabody Picture Vocabulary Test, by age cohort: School year 2003–04

	Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
Mean	0.6	0.8	0.8	0.9

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Peabody Picture Vocabulary Test," previously unpublished tabulation (April 2005).

Table A-25. Standard errors for the mean performance of children with disabilities ages 3–5 on Peabody Picture Vocabulary Test, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	0.6	3.6	1.3	3.7	1.7	4.1	2.4	4.1	0.6	2.9
Cohort A (age 3)	0.8	2.4	1.5	‡	6.9	‡	‡	8.9	1.1	3.1
Cohort B (age 4)	0.8	6.5	2.2	5.4	5.1	7.1	3.1	4.3	0.8	6.0
Cohort C (age 5)	0.9	4.7	1.8	3.3	2.3	5.2	‡	5.2	1.0	3.1

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Peabody Picture Vocabulary Test," previously unpublished tabulation (April 2005).

Table A-26. Standard errors for the mean performance of children with disabilities ages 3–5 on Peabody Picture Vocabulary Test, by gender: School year 2003–04

	Total	Male	Female
Total	0.6	0.7	1.1
Cohort A (age 3)	0.8	0.9	1.3
Cohort B (age 4)	0.8	0.9	2.5
Cohort C (age 5)	0.9	0.9	1.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Peabody Picture Vocabulary Test," previously unpublished tabulation (April 2005).

Table A-27. Standard errors for the mean performance of children with disabilities ages 3–5 on Peabody Picture Vocabulary Test, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	0.6	1.2	1.2	0.7
Cohort A (age 3)	0.8	2.0	1.8	0.8
Cohort B (age 4)	0.8	3.4	1.7	1.1
Cohort C (age 5)	0.9	1.9	2.1	1.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Peabody Picture Vocabulary Test," previously unpublished tabulation (April 2005).

Table A-28. Standard errors for the mean performance of children with disabilities ages 3–5 on Peabody Picture Vocabulary Test, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	0.6	1.2	1.2	1.4	1.6	0.8
Cohort A (age 3)	0.8	1.1	2.4	1.8	2.1	1.0
Cohort B (age 4)	0.8	2.0	2.3	2.5	2.2	1.1
Cohort C (age 5)	0.9	1.7	1.3	2.0	2.6	1.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Peabody Picture Vocabulary Test," previously unpublished tabulation (April 2005).

Table A-29. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Functional (Pre-) Academics subscale of the Adaptive Behavior Assessment System II, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
0.2	0.2	0.2	0.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Functional Pre-Academics and Teacher Form: Functional Pre-Academics," previously unpublished tabulation (April 2005).

Table A-30. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Functional (Pre-) Academics subscale of the Adaptive Behavior Assessment System II, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Not yet in kindergarten										
Total	0.2	0.9	0.2	‡	‡	‡	0.6	‡	0.2	1.3
Cohort A (age 3)	0.2	1.2	0.3	‡	‡	‡	‡	‡	0.3	0.6
Cohort B (age 4)	0.2	0.9	0.2	‡	‡	0.5	0.7	‡	0.2	1.7
In kindergarten										
Cohort C (age 5)	0.3	‡	0.9	‡	0.9	‡	‡	‡	0.3	1.4

‡ Reporting standards not met.

NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.

These data are preliminary. Final Wave 1 data will be available in spring 2006.

SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Functional Pre-Academics and Teacher Form: Functional Academics," previously unpublished tabulation (April 2005).

Table A-31. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Functional (Pre-) Academics subscale of the Adaptive Behavior Assessment System II, by gender: School year 2003–04

	Total	Male	Female
Not yet in kindergarten			
Total	0.2	0.2	0.2
Cohort A (age 3)	0.2	0.2	0.3
Cohort B (age 4)	0.2	0.3	0.3
In kindergarten			
Cohort C (age 5)	0.3	0.4	0.5

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.

SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Functional Pre-Academics and Teacher Form: Functional Academics," previously unpublished tabulation (April 2005).

Table A-32. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Functional (Pre-) Academics subscale of the Adaptive Behavior Assessment System II, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Not yet in kindergarten				
Total	0.2	0.6	0.2	0.2
Cohort A (age 3)	0.2	0.4	0.4	0.3
Cohort B (age 4)	0.2	0.8	0.2	0.2
In kindergarten				
Cohort C (age 5)	0.3	0.6	0.6	0.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Functional Pre-Academics and Teacher Form: Functional Academics," previously unpublished tabulation (April 2005).

Table A-33. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Functional (Pre-) Academics subscale of the Adaptive Behavior Assessment System II, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Not yet in kindergarten						
Total	0.2	0.3	0.3	0.3	0.4	0.2
Cohort A (age 3)	0.2	0.4	0.4	0.2	0.6	0.5
Cohort B (age 4)	0.2	0.4	0.4	0.4	0.6	0.2
In kindergarten						
Cohort C (age 5)	0.3	0.6	0.6	0.4	0.6	0.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Functional Pre-Academics and Teacher Form: Functional Academics," previously unpublished tabulation (April 2005).

Table A-34. Standard errors for the mean performance of children with disabilities ages 3-5 on Woodcock-Johnson III: Applied Problems, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
1.0	1.3	1.6	1.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Applied Problems," previously unpublished tabulation (April 2005).

Table A-35. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Applied Problems, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	1.0	6.9	1.4	4.2	3.0	4.0	3.0	5.7	0.7	3.9
Cohort A (age 3)	1.3	4.0	1.6	‡	‡	‡	9.8	7.3	1.3	3.5
Cohort B (age 4)	1.6	6.7	2.8	‡	4.8	4.8	3.6	11.9	1.1	6.9
Cohort C (age 5)	1.0	10.6	1.7	4.0	2.8	6.7	‡	2.6	1.0	5.4

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Applied Problems," previously unpublished tabulation (April 2005).

Table A-36. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Applied Problems, by gender: School year 2003–04

	Total	Male	Female
Total	1.0	1.2	1.0
Cohort A (age 3)	1.3	1.5	1.8
Cohort B (age 4)	1.6	2.2	1.5
Cohort C (age 5)	1.0	1.2	1.8

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Applied Problems," previously unpublished tabulation (April 2005).

Table A-37. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Applied Problems, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	1.0	2.5	1.4	0.9
Cohort A (age 3)	1.3	4.0	2.2	1.5
Cohort B (age 4)	1.6	2.7	1.7	1.5
Cohort C (age 5)	1.0	2.8	2.1	1.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Applied Problems," previously unpublished tabulation (April 2005).

Table A-38. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Applied Problems, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	1.0	1.4	1.3	1.8	1.7	1.2
Cohort A (age 3)	1.3	1.7	2.8	2.9	2.5	1.8
Cohort B (age 4)	1.6	2.3	2.0	2.6	3.2	1.8
Cohort C (age 5)	1.0	1.9	2.0	2.7	1.9	1.9

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Applied Problems," previously unpublished tabulation (April 2005).

Table A-39. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Quantitative Concepts, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Cohort C (age 5)	0.9	9.3	1.7	7.0	4.5	6.9	‡	7.7	1.0	4.9

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Quantitative Concepts," previously unpublished tabulation (April 2005).

Table A-40. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Quantitative Concepts, by gender: School year 2003–04

	Total	Male	Female
Cohort C (age 5)	0.9	1.1	1.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Quantitative Concepts," previously unpublished tabulation (April 2005).

Table A-41. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Quantitative Concepts, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Cohort C (age 5)	0.9	2.3	1.4	1.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Quantitative Concepts," previously unpublished tabulation (April 2005).

Table A-42. Standard errors for the mean performance of children with disabilities ages 3–5 on Woodcock-Johnson III – Quantitative Concepts, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Cohort C (age 5)	0.9	1.8	1.9	2.3	1.9	1.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Woodcock-Johnson III: Quantitative Concepts," previously unpublished tabulation (April 2005).

Table A-43. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Social Skills subscale of the Preschool and Kindergarten Behavior Scale, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
0.9	1.2	1.1	1.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (April 2005).

Table A-44. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Social Skills subscale of the Preschool and Kindergarten Behavior Scale, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	0.9	3.4	1.7	6.0	4.2	3.7	4.3	3.9	1.1	3.9
Cohort A (age 3)	1.2	3.8	2.2	‡	‡	4.9	‡	4.8	1.4	5.6
Cohort B (age 4)	1.2	3.6	2.2	‡	‡	5.6	6.3	9.2	1.4	6.9
Cohort C (age 5)	1.4	8.2	3.1	11.6	5.1	5.5	‡	3.7	1.5	5.8

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table A-45. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Social Skills subscale of the Preschool and Kindergarten Behavior Scale, by gender: School year 2003–04

	Total	Male	Female
Total	0.9	1.0	1.2
Cohort A (age 3)	1.2	1.6	2.3
Cohort B (age 4)	1.2	1.5	2.01
Cohort C (age 5)	1.4	1.7	1.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation April 2005.

Table A-46. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Social Skills subscale of the Preschool and Kindergarten Behavior Scale, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Cohort A (age 3)				
Mean	1.2	3.0	2.0	1.6
Cohort B (age 4)				
Mean	1.2	3.1	2.3	1.6
Cohort C (age 5)				
Mean	1.4	6.2	2.9	1.5

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation April 2005.

Table A-47. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Social Skills subscale of the Preschool and Kindergarten Behavior Scale, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	0.9	1.8	1.5	2.4	2.2	1.0
Cohort A (age 3)	1.2	2.6	2.5	3.1	5.0	1.9
Cohort B (age 4)	1.2	2.4	2.5	4.8	4.0	1.4
Cohort C (age 5)	1.4	3.1	2.4	2.8	3.7	2.1

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation April 2005.

Table A-48. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Problem Behavior subscale of the Preschool and Kindergarten Behavior Scale, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
0.7	0.8	1.1	0.9

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (April 2005).

Table A-49. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Problem Behavior subscale of the Preschool and Kindergarten Behavior Scale, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	0.7	1.5	1.0	4.3	2.4	2.2	3.0	5.1	0.7	2.6
Cohort A (age 3)	0.8	1.8	1.4	‡	‡	2.9	‡	2.6	1.4	2.4
Cohort B (age 4)	1.1	2.6	1.6	‡	‡	3.4	4.4	7.4	1.0	3.0
Cohort C (age 5)	0.9	2.2	1.8	6.4	3.2	3.1	‡	7.5	1.1	4.4

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table A-50. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Problem Behavior subscale of the Preschool and Kindergarten Behavior Scale, by gender: School year 2003–04

	Total	Male	Female
Total	0.7	0.8	0.7
Cohort A (age 3)	0.8	1.1	1.4
Cohort B (age 4)	1.1	1.3	1.2
Cohort C (age 5)	0.9	1.1	1.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation April 2005.

Table A-51. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Problem Behavior subscale of the Preschool and Kindergarten Behavior Scale, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	0.7	1.4	1.3	0.8
Cohort A (age 3)	0.8	2.1	1.7	1.0
Cohort B (age 4)	1.1	1.9	1.5	1.5
Cohort C (age 5)	0.9	2.8	2.0	1.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation April 2005.

Table A-52. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Problem Behavior subscale of the Preschool and Kindergarten Behavior Scale, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	0.7	1.4	1.4	2.0	1.5	0.8
Cohort A (age 3)	0.8	1.8	1.8	1.6	3.1	1.6
Cohort B (age 4)	1.1	1.6	2.2	4.2	2.7	1.43
Cohort C (age 5)	0.9	1.8	2.1	2.2	2.9	1.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation April 2005.

Table A-53. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Self-Care subscale of the Adaptive Behavior Assessment System II, by age cohort: School year 2003–04

Not yet in kindergarten		In kindergarten	
Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
0.2	0.2	0.2	0.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Care and Teacher Form: Self-Care," previously unpublished tabulation (April 2005).

Table A-54. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Self-Care subscale of the Adaptive Behavior Assessment System II, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Not yet in kindergarten										
Total	0.2	0.6	0.3	‡	‡	‡	0.8	‡	0.2	1.2
Cohort A (age 3)	0.2	0.3	0.3	‡	‡	‡	‡	‡	0.3	0.8
Cohort B (age 4)	0.2	0.7	0.4	‡	‡	0.8	1.1	‡	0.2	1.6
In kindergarten										
Cohort C (age 5)	0.3	‡	0.4	‡	0.9	‡	‡	2.6	0.4	1.4

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Care and Teacher Form: Self-Care," previously unpublished tabulation (April 2005).

Table A-55. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Self-Care subscale of the Adaptive Behavior Assessment System II, by gender: School year 2003–04

	Total	Male	Female
Not yet in kindergarten			
Total	0.2	0.2	0.3
Cohort A (age 3)	0.2	0.2	0.3
Cohort B (age 4)	0.2	0.3	0.4
In kindergarten			
Cohort C (age 5)	0.3	0.4	0.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Care and Teacher Form: Self-Care," previously unpublished tabulation (April 2005).

Table A-56. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Self-Care subscale of the Adaptive Behavior Assessment System II, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Not yet in kindergarten				
Total	0.2	0.4	0.3	0.2
Cohort A (age 3)	0.2	0.4	0.4	0.2
Cohort B (age 4)	0.2	0.5	0.4	0.3
In kindergarten				
Cohort C (age 5)	0.3	0.9	0.6	0.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Care and Teacher Form: Self-Care," previously unpublished tabulation (April 2005).

Table A-57. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Self-Care subscale of the Adaptive Behavior Assessment System II, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Not yet in kindergarten						
Total	0.2	0.3	0.4	0.5	0.6	0.2
Cohort A (age 3)	0.2	0.3	0.4	0.4	0.5	0.3
Cohort B (age 4)	0.2	0.4	0.5	0.8	0.7	0.3
In kindergarten						
Cohort C (age 5)	0.3	0.8	0.8	0.7	0.9	0.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Care and Teacher Form: Self-Care," previously unpublished tabulation (April 2005).

Table A-58. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Self-Direction subscale of the Adaptive Behavior Assessment System II, by age cohort: School year 2003–04

	Not yet in kindergarten		In kindergarten
Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
0.2	0.2	0.2	0.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Care and Teacher Form: Self-Care," previously unpublished tabulation (April 2005).

Table A-59. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Self-Direction subscale of the Adaptive Behavior Assessment System II, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Not yet in kindergarten										
Total	0.2	0.5	0.2	‡	‡	‡	0.7	‡	0.2	1.3
Cohort A (age 3)	0.2	0.4	0.3	‡	‡	‡	‡	‡	0.2	1.0
Cohort B (age 4)	0.2	0.7	0.3	‡	‡	1.1	0.8	‡	0.2	1.6
In kindergarten										
Cohort C (age 5)	0.3	‡	0.7	‡	0.5	‡	‡	‡	0.4	1.7

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Direction and Teacher Form, Self-Direction," previously unpublished tabulation (April 2005).

Table A-60. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Self-Direction subscale of the Adaptive Behavior Assessment System II, by gender: School year 2003–04

	Total	Male	Female
Not yet in kindergarten			
Total	0.2	0.2	0.2
Cohort A (age 3)	0.2	0.2	0.4
Cohort B (age 4)	0.2	0.2	0.3
In kindergarten			
Cohort C (age 5)	0.3	0.4	0.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Direction and Teacher Form, Self-Direction," previously unpublished tabulation (April 2005).

Table A-61. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Self-Direction subscale of the Adaptive Behavior Assessment System II, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Not yet in kindergarten				
Total	0.2	0.6	0.3	0.2
Cohort A (age 3)	0.2	0.5	0.3	0.2
Cohort B (age 4)	0.2	0.8	0.3	0.2
In kindergarten				
Cohort C (age 5)	0.3	1.1	0.6	0.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Direction and Teacher Form, Self-Direction," previously unpublished tabulation (April 2005).

Table A-62. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Self-Direction subscale of the Adaptive Behavior Assessment System II, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Not yet in kindergarten						
Total	0.2	0.4	0.3	0.3	0.5	0.2
Cohort A (age 3)	0.2	0.5	0.4	0.3	0.7	0.3
Cohort B (age 4)	0.2	0.4	0.4	0.5	0.7	0.3
In kindergarten						
Cohort C (age 5)	0.3	0.7	0.8	0.9	0.9	0.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Teacher/Daycare Provider Form: Self-Direction and Teacher Form, Self-Direction," previously unpublished tabulation (April 2005).

Table A-63. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Motor Skills subscale of the Vineland Adaptive Behavior Scales, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
0.9	1.1	1.2	1.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (April 2005).

Table A-64. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Motor Skills subscale of the Vineland Adaptive Behavior Scales, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	0.9	2.9	1.8	4.8	4.3	2.7	4.6	4.4	1.0	5.3
Cohort A (age 3)	1.1	5.6	2.5	‡	23.5	1.7	‡	7.0	1.8	6.6
Cohort B (age 4)	1.2	3.3	2.2	‡	5.0	3.8	5.9	7.5	1.6	8.2
Cohort C (age 5)	1.3	6.6	3.4	4.5	3.5	4.2	‡	10.1	1.4	8.3

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table A-65. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Motor Skills subscale of the Vineland Adaptive Behavior Scales, by gender: School year 2003–04

	Total	Male	Female
Total	0.9	0.9	1.6
Cohort A (age 3)	1.1	1.5	2.3
Cohort B (age 4)	1.2	1.3	2.8
Cohort C (age 5)	1.3	1.5	2.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation April 2005.

Table A-66. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Motor Skills subscale of the Vineland Adaptive Behavior Scales, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	0.9	2.7	1.7	1.1
Cohort A (age 3	1.1	2.3	2.7	1.6
Cohort B (age 4	1.2	3.4	3.3	1.5
Cohort C (age 5	1.3	6.3	2.4	1.8

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation April 2005.

Table A-67. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 on the Motor Skills subscale of the Vineland Adaptive Behavior Scales, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	0.9	1.9	1.7	2.5	2.5	1.1
Cohort A (age 3)	1.1	2.0	3.7	2.3	4.6	1.5
Cohort B (age 4)	1.2	2.1	3.2	4.5	3.4	1.6
Cohort C (age 5)	1.3	3.6	2.9	4.0	4.1	2.1

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire" and "Kindergarten Teacher Questionnaire," previously unpublished tabulation April 2005.

Table A-68. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 in preschool or not in school who participated in an Alternate Assessment: ABAS-II – Conceptual Domain Composite score, by age cohort: School year 2003-04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
1.3	1.1	2.3	1.9

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Conceptual Domain Composite, Teacher/Daycare Provider Form: subscales Communication, Functional (Pre) Academics, and Self-Direction," previously unpublished tabulation (April 2005).

Table A-69. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 in preschool or not in school who participated in an Alternate Assessment: ABAS-II – Practical Domain Composite score, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
1.2	1.4	1.5	2.1

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Practical Domain Composite, Teacher/Daycare Provider Form: subscales School Living, Health and Safety, and Self-Care," previously unpublished tabulation (April 2005).

Table A-70. Standard errors for the mean teacher ratings of children with disabilities ages 3–5 in preschool or not in school who participated in an Alternate Assessment: ABAS-II – Social Domain Composite score, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
0.9	1.0	1.5	2.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Adaptive Behavior Assessment System - Second Edition (ABAS-II) Social Domain Composite, Teacher/Daycare Provider Form: subscales Leisure and Social," previously unpublished tabulation (April 2005).

Appendix B: Individual Growth and Development Indicators (IGDI) Tables

Table B-1. Mean performance of children with disabilities ages 3–5 on IGDI Picture Naming, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
14.7	11.3	13.7	16.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Picture Naming," previously unpublished tabulation (April 2005).

Table B-2. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Picture Naming, by age cohort: School year 2003–04

Total	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
0.2	0.3	0.4	0.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Picture Naming," previously unpublished tabulation (April 2005).

Table B-3. Mean performance of children with disabilities ages 3–5 on IGDI Picture Naming, by disability category: School year 2003–04

	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	13.0	12.4	18.9	13.3	‡	11.2	14.9	15.9	13.7
Cohort A (age 3)	10.5	10.3	‡	‡	‡	‡	11.9	11.7	11.3
Cohort B (age 4)	13.2	11.7	‡	10.4	‡	8.7	‡	15.1	13.5
Cohort C (age 5)	13.9	14.3	‡	14.3	12.1	‡	16.4	18.0	14.4

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Picture Naming," previously unpublished tabulation (April 2005).

Table B-4. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Picture Naming, by disability category: School year 2003–04

	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	1.4	0.5	2.0	1.0	‡	1.2	1.3	0.3	0.6
Cohort A (age 3)	0.8	0.4	‡	‡	‡	‡	2.9	0.3	1.3
Cohort B (age 4)	1.6	0.9	‡	1.2	‡	1.1	‡	0.3	1.0
Cohort C (age 5)	2.6	0.8	‡	1.3	2.0	‡	1.2	0.4	1.1

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Picture Naming," previously unpublished tabulation (April 2005).

Table B-5. Mean performance of children with disabilities ages 3–5 on IGDI Picture Naming, by gender: School year 2003–04

	Total	Male	Female
Total	14.7	14.8	14.3
Cohort A (age 3)	11.3	11.7	10.6
Cohort B (age 4)	13.7	13.8	13.6
Cohort C (age 5)	16.7	16.8	16.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Picture Naming," previously unpublished tabulation (April 2005).

Table B-6. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Picture Naming, by gender: School year 2003–04

	Total	Male	Female
Total	0.2	0.3	0.4
Cohort A (age 3)	0.3	0.4	0.4
Cohort B (age 4)	0.4	0.5	0.6
Cohort C (age 5)	0.4	0.4	0.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Picture Naming," previously unpublished tabulation (April 2005).

Table B-7. Mean performance of children with disabilities ages 3–5 on IGDI Picture Naming, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	14.7	12.2	12.0	15.6
Cohort A (age 3)	11.3	10.6	8.8	12.1
Cohort B (age 4)	13.7	10.7	11.1	14.8
Cohort C (age 5)	16.7	14.7	13.6	17.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Picture Naming," previously unpublished tabulation (April 2005).

Table B-8. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Picture Naming, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	0.2	0.6	0.4	0.3
Cohort A (age 3)	0.3	0.8	0.6	0.4
Cohort B (age 4)	0.4	0.7	0.4	0.4
Cohort C (age 5)	0.4	0.9	0.6	0.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Picture Naming," previously unpublished tabulation (April 2005).

Table B-9. Mean performance of children with disabilities ages 3–5 on IGDI Picture Naming, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	14.7	12.8	14.4	14.4	15.9	15.7
Cohort A (age 3)	11.3	9.5	10.9	11.9	10.5	12.5
Cohort B (age 4)	13.7	11.2	13.7	14.2	16.0	14.6
Cohort C (age 5)	16.7	15.0	15.7	15.9	17.6	18.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Picture Naming," previously unpublished tabulation (April 2005).

Table B-10. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Picture Naming, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	0.2	0.5	0.5	0.6	0.6	0.3
Cohort A (age 3)	0.3	0.6	1.0	1.3	0.7	0.5
Cohort B (age 4)	0.4	0.6	0.9	0.7	1.1	0.4
Cohort C (age 5)	0.4	0.7	0.7	0.9	0.8	0.5

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Picture Naming," previously unpublished tabulation (April 2005).

Table B-11. Mean performance of children with disabilities ages 3–5 on IGDI Rhyming, by age cohort: School year 2003–04

Total	Cohort B (age 4)	Cohort C (age 5)
6.6	5.4	7.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), " Individual Growth and Development Indicators: Rhyming," previously unpublished tabulation (April 2005).

Table B-12. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Rhyming, by age cohort: School year 2003–04

Total	Cohort B (age 4)	Cohort C (age 5)
0.3	0.3	0.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Rhyming," previously unpublished tabulation (April 2005).

Table B-13. Mean performance of children with disabilities ages 3–5 on IGDI Rhyming, by disability: School year 2003–04

	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	6.5	5.3	‡	‡	‡	‡	‡	6.8	8.2
Cohort B (age 4)	‡	3.8	‡	‡	‡	‡	‡	5.5	11.0
Cohort C (age 5)	6.2	6.2	‡	7.2	‡	‡	7.3	7.5	6.2

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Rhyming," previously unpublished tabulation (April 2005).

Table B-14. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Rhyming, by disability category: School year 2003–04

	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	1.1	0.5	‡	‡	‡	‡	‡	0.4	1.6
Cohort B (age 4)	‡	0.4	‡	‡	‡	‡	‡	0.4	2.7
Cohort C (age 5)	1.4	0.7	‡	0.7	‡	‡	1.2	0.5	1.5

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Rhyming," previously unpublished tabulation (April 2005).

Table B-15. Mean performance of children with disabilities ages 3–5 on IGDI Rhyming, by gender: School year 2003–04

	Total	Male	Female
Total	6.6	6.4	7.2
Cohort B (age 4)	5.4	5.2	5.7
Cohort C (age 5)	7.3	6.9	8.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Rhyming," previously unpublished tabulation (April 2005).

Table B-16. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Rhyming, by gender: School year 2003–04

	Total	Male	Female
Total	0.3	0.3	0.4
Cohort B (age 4)	0.3	0.4	0.6
Cohort C (age 5)	0.4	0.5	0.5

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Rhyming," previously unpublished tabulation (April 2005).

Table B-17. Mean performance of children with disabilities ages 3–5 on IGDI Rhyming, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	6.6	6.7	5.5	6.7
Cohort B (age 4)	5.4	4.5	3.8	5.7
Cohort C (age 5)	7.3	8.2	6.4	7.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Rhyming," previously unpublished tabulation (April 2005).

Table B-18. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Rhyming, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	0.3	1.8	0.3	0.3
Cohort B (age 4)	0.3	1.1	0.4	0.3
Cohort C (age 5)	0.4	2.5	0.4	0.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Rhyming," previously unpublished tabulation (April 2005).

Table B-19. Mean performance of children with disabilities ages 3–5 on IGDI Rhyming, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	6.6	5.3	6.4	6.8	5.8	7.2
Cohort B (age 4)	5.4	3.8	5.2	6.7	4.5	6.0
Cohort C (age 5)	7.3	5.9	6.7	6.8	6.9	7.9

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Rhyming," previously unpublished tabulation (April 2005).

Table B-20. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Rhyming, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	0.3	0.6	0.5	0.8	0.6	0.4
Cohort B (age 4)	0.3	0.4	1.0	1.2	0.5	0.4
Cohort C (age 5)	0.4	0.8	0.6	1.0	1.1	0.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Rhyming," previously unpublished tabulation (April 2005).

Table B-21. Performance of mean children with disabilities ages 3–5 on IGDI Segment Blending, by age cohort: School year 2003–04

Total	Cohort B (age 4)	Cohort C (age 5)
10.3	7.6	12.4

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Segment Blending," previously unpublished tabulation (April 2005).

Table B-22. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Segment Blending, by age cohort: School year 2003–04

Total	Cohort B (age 4)	Cohort C (age 5)
0.5	0.5	0.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Segment Blending," previously unpublished tabulation (April 2005).

Table B-23. Mean performance of children with disabilities ages 3–5 on IGDI Segment Blending, by disability category: School year 2003–04

	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	9.0	8.7	10.9	9.1	4.5	‡	12.1	11.3	8.6
Cohort B (age 4)	6.8	6.5	‡	3.5	‡	6.1	6.4	8.4	10.1
Cohort C (age 5)	10.7	10.7	13.7	10.2	7.5	‡	16.4	13.6	7.2

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Segment Blending," previously unpublished tabulation (April 2005).

Table B- 24. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Segment Blending, by disability category: School year 2003–04

	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	2.3	0.7	1.9	2.2	1.5	‡	3.9	0.6	1.1
Cohort B (age 4)	1.9	1.0	‡	1.3	‡	2.0	2.0	0.6	0.8
Cohort C (age 5)	3.2	0.8	2.2	2.4	1.8	‡	5.5	0.9	1.9

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Segment Blending," previously unpublished tabulation (April 2005).

Table B-25. Mean performance of children with disabilities ages 3–5 on IGDI Segment Blending, by gender: School year 2003–04

	Total	Male	Female
Total	10.3	10.3	10.1
Cohort B (age 4)	7.6	7.7	7.2
Cohort C (age 5)	12.4	12.4	12.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Segment Blending," previously unpublished tabulation (April 2005).

Table B-26. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Segment Blending, by gender: School year 2003–04

	Total	Male	Female
Total	0.5	0.5	0.7
Cohort B (age 4)	0.5	0.4	0.8
Cohort C (age 5)	0.6	0.7	1.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Segment Blending," previously unpublished tabulation (April 2005).

Table B-27. Mean performance of children with disabilities ages 3–5 on IGDI Segment Blending, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	10.3	7.5	8.8	10.9
Cohort B (age 4)	7.6	5.2	6.4	8.4
Cohort C (age 5)	12.4	10.4	10.5	12.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Segment Blending," previously unpublished tabulation (April 2005).

Table B-28. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Segment Blending, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	0.5	1.1	0.6	0.5
Cohort B (age 4)	0.5	0.7	0.7	0.6
Cohort C (age 5)	0.6	1.8	0.9	0.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Segment Blending," previously unpublished tabulation (April 2005).

Table B-29. Mean performance of children with disabilities ages 3–5 on IGDI Segment Blending, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	10.3	9.4	9.3	9.4	11.4	10.9
Cohort B (age 4)	7.6	6.4	5.9	8.8	8.1	8.5
Cohort C (age 5)	12.4	11.6	11.1	10.0	14.7	13.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Segment Blending," previously unpublished tabulation (April 2005).

Table B-30. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Segment Blending, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	0.5	0.8	0.8	0.7	1.0	0.7
Cohort B (age 4)	0.5	0.7	0.8	1.0	0.9	0.7
Cohort C (age 5)	0.6	1.0	1.0	0.9	1.8	1.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Segment Blending," previously unpublished tabulation (April 2005).

Table B-31. Mean performance of children with disabilities ages 3–5 on IGDI Alliteration, by age cohort: School year 2003–04

Total	Cohort B (age 4)	Cohort C (age 5)
5.1	4.0	5.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Alliteration," previously unpublished tabulation (April 2005).

Table B-32. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Alliteration, by age cohort: School year 2003–04

Total	Cohort B (age 4)	Cohort C (age 5)
0.2	0.4	0.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Alliteration," previously unpublished tabulation (April 2005)

Table B-33. Mean performance of children with disabilities ages 3–5 on IGDI Alliteration, by disability: School year 2003–04

	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	5.7	4.4	‡	3.8	‡	‡	‡	5.4	6.1
Cohort B (age 4)	5.6	3.3	‡	‡	‡	‡	‡	4.0	‡
Cohort C (age 5)	5.8	5.2	4.7	3.9	‡	‡	‡	6.0	6.8

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Alliteration," previously unpublished tabulation (April 2005).

Table B-34. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Alliteration, by disability category: School year 2003–04

	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Total	1.2	0.6	‡	0.6	‡	‡	‡	0.3	2.4
Cohort B (age 4)	1.3	0.4	‡	‡	‡	‡	‡	0.3	‡
Cohort C (age 5)	1.7	0.8	1.7	0.6	‡	‡	‡	0.4	2.0

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Alliteration," previously unpublished tabulation (April 2005).

Table B-35. Mean performance of children with disabilities ages 3–5 on IGDI Alliteration, by gender: School year 2003–04

	Total	Male	Female
Total	5.1	5.1	5.1
Cohort B (age 4)	4.0	4.1	3.8
Cohort C (age 5)	5.6	5.5	5.8

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Alliteration," previously unpublished tabulation (April 2005).

Table B-36. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Alliteration, by gender: School year 2003–04

	Total	Male	Female
Total	0.2	0.3	0.4
Cohort B (age 4)	0.4	0.6	0.3
Cohort C (age 5)	0.3	0.3	0.6

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Alliteration," previously unpublished tabulation (April 2005).

Table B-37. Mean performance of children with disabilities ages 3–5 on IGDI Alliteration, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	5.1	4.2	5.2	4.9
Cohort B (age 4)	4.0	2.6	4.1	3.9
Cohort C (age 5)	5.6	5.6	5.7	5.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Alliteration," previously unpublished tabulation (April 2005).

Table B-38. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Alliteration, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Total	0.2	1.0	0.4	0.2
Cohort B (age 4)	0.4	0.4	0.7	0.3
Cohort C (age 5)	0.3	1.4	0.6	0.3

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Alliteration," previously unpublished tabulation (April 2005).

Table B-39. Mean performance of children with disabilities ages 3–5 on IGDI Alliteration, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	5.1	3.8	4.7	4.9	5.8	5.4
Cohort B (age 4)	4.0	2.7	3.4	5.2	4.4	4.0
Cohort C (age 5)	5.6	4.2	5.2	4.5	6.5	6.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Alliteration," previously unpublished tabulation (April 2005).

Table B-40. Standard errors for the mean performance of children with disabilities ages 3–5 on IGDI Alliteration, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Total	0.2	0.3	0.4	0.5	0.6	0.4
Cohort B (age 4)	0.4	0.3	0.5	0.9	0.4	0.5
Cohort C (age 5)	0.3	0.4	0.5	0.4	1.0	0.5

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Individual Growth and Development Indicators: Alliteration," previously unpublished tabulation (April 2005).

Appendix C: Standard Error Tables for Figures

EDITOR'S NOTE: The tables in Appendix C contain standard errors for the corresponding figures in the main body of the report. For example, Table C-3 contains the standard errors for figure 3.

Table C-1. Standard errors for percentage of children 3–5 in the general population and in special education, by race/ethnicity: School year 2003–04

	Total
Black	1.7
Hispanic	2.5
White	3.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Table C-2. Standard errors for percentage of children ages 3–5 in the general population and special education whose parents had various levels of educational attainment: School year 2003–04

	Mothers	Fathers
Less than high school diploma	1.7	1.5
High school diploma or GED	1.5	1.7
Some college	1.2	1.5
Four-year college degree or higher	1.6	1.9

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Table C-3. Standard errors for the percentage of children with disabilities ages 3–5 who lived with different types of parents/guardians, by household income: School year 2003-04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Biological parents	1.6	3.3	3.1	3.5	3.5	1.6
Biological mother or father only	1.4	3.0	2.8	2.2	3.1	0.9
Biological mother or father and other mother or father	0.8	1.7	2.2	2.4	1.8	0.8
Adoptive parent(s)	0.6	‡	‡	1.5	1.6	1.2
Other	0.5	0.9	1.3	1.8	‡	0.5

‡ Reporting standards not met.
NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Table C-4. Standard errors for percentage of children with disabilities ages 3–5 who were in different age groups when someone first expressed concern about their health or development: School year 2003–04

	Total
Prior to birth to less than one month	1.2
1 month - 11 months	1.0
1 year - 23 months	1.2
2 years - 35 months	1.6
3 years - 47 months	1.1
4 years and older	0.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Table C-5. Standard errors for median birth weight of children with disabilities ages 3–5 (in ounces), by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Mean	(1.4)	(4.3)	(2.0)	(1.0)
Median	(1.1)	(4.0)	(1.7)	(0.8)

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Table C-6. Standard errors: median age (in months) of children with disabilities ages 3–5 when they first started regularly receiving special education or therapy from a professional, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Mean	0.4	2.1	0.9	1.8	2.6	2.6	2.1	3.1	0.5	2.2
Median	0.0	5.0	4.2	1.7	1.8	2.0	6.0	7.5	0.1	4.6

NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
These data are preliminary. Final Wave 1 data will be available in spring 2006.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," previously unpublished tabulation (June 2005).

Appendix D: Additional Tables

Table D-1. Percentage of preschoolers identified with disabilities whose teachers held credentials in various disciplines, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Special education	35.8	38.4	44.4	32.0
Early childhood special education	31.3	32.0	30.3	31.5
Elementary/secondary education	30.7	26.5	31.3	30.6
Early childhood education	28.1	28.6	28.7	28.2
Speech or language pathology	17.1	8.0	12.8	19.9
Child development	7.3	4.7	5.7	8.4
Other	16.1	9.5	14.6	17.7

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006. Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table D-2. Standard errors for percentage of preschoolers identified with disabilities whose teachers held credentials in various disciplines, by race/ethnicity: School year 2003–04

	Total	Black	Hispanic	White
Special education	2.4	6.4	5.4	3.1
Early childhood special education	2.8	7.1	4.3	3.5
Elementary/secondary education	2.6	6.5	3.9	3.1
Early childhood education	2.1	5.5	3.4	2.7
Speech or language pathology	1.9	2.2	2.4	2.4
Child development	1.3	2.9	1.6	1.8
Other	1.7	2.4	2.5	2.1

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006. Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table D-3. Percentage of preschoolers identified with disabilities whose teachers held credentials in various disciplines, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Special education	35.8	40.7	32.4	43.3	35.0	31.8
Early childhood special education	31.3	33.3	30.4	34.4	25.9	31.3
Elementary/secondary education	30.7	28.0	30.5	40.2	27.9	30.7
Early childhood education	28.1	29.3	31.1	22.9	32.0	26.4
Speech or language pathology	17.1	10.6	15.5	14.5	14.9	24.0
Child development	7.3	10.2	7.9	3.9	11.1	4.6
Other	16.1	15.4	19.4	19.6	17.8	13.2

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006. Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table D-4. Standard errors for percentage of preschoolers identified with disabilities whose teachers held credentials in various disciplines, by household income: School year 2003–04

	Total	$20,000 or less	$20,001 to $30,000	$30,001 to $40,000	$40,001 to $50,000	More than $50,000
Special education	2.4	4.9	4.5	5.9	5.8	2.6
Early childhood special education	2.8	5.0	4.2	6.6	5.0	3.8
Elementary/secondary education	2.6	4.1	4.0	5.9	6.1	3.1
Early childhood education	2.1	2.8	4.5	4.4	6.3	3.2
Speech or language pathology	1.9	3.2	3.4	2.6	3.7	2.9
Child development	1.3	2.3	2.9	1.2	4.3	2.3
Other	1.7	2.4	3.9	4.1	4.1	1.8

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006. Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table D-5. Percentage of preschoolers identified with disabilities whose teachers held credentials in various disciplines, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Special education	35.8	50.6	53.5	51.8	‡	50.9	37.4	37.6	24.9	22.9
Early childhood special education	31.3	35.0	46.5	50.5	44.1	49.9	‡	45.4	21.0	29.3
Elementary/secondary education	30.7	33.2	35.6	‡	‡	41.6	‡	49.5	25.3	45.7
Early childhood education	28.1	39.2	29.3	50.2	‡	23.4	‡	43.4	25.3	35.4
Speech or language pathology	17.1	‡	5.2	‡	‡	‡	‡	‡	37.0	‡
Child development	7.3	‡	3.8	‡	‡	‡	‡	‡	9.2	‡
Other	16.1	7.8	19.0	‡	‡	24.7	‡	32.6	13.4	17.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006. Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Table D-6. Standard errors for percentage of preschoolers identified with disabilities whose teachers held credentials in various disciplines, by disability category: School year 2003–04

	Total	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Special education	2.4	10.8	5.0	15.1	‡	9.3	13.5	11.4	3.2	7.5
Early childhood special education	2.8	6.1	5.4	14.0	15.3	8.1	‡	‡	2.9	11.0
Elementary/secondary education	2.6	13.4	4.3	‡	‡	8.0	‡	14.3	3.4	9.3
Early childhood education	2.1	5.0	2.6	11.1	‡	8.0	‡	9.0	3.0	13.6
Speech or language pathology	1.9	‡	1.2	‡	‡	‡	‡	‡	3.8	‡
Child development	1.3	‡	1.7	‡	‡	‡	‡	‡	9.2	‡
Other	‡	‡	‡	‡	‡	9.8	‡	9.4	2.1	7.0

NOTE: These data are preliminary. Final Wave 1 data will be available in spring 2006. Column percentages do not sum to 100 because respondents were asked to select one or more responses as appropriate.
‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Early Childhood Teacher Questionnaire," previously unpublished tabulation (June 2005).

Appendix E: Weighting Procedures

This appendix describes weighting procedures used in Wave 1 of PEELS. Because PEELS includes a nationally representative sample of local education agencies (LEAs) and children with disabilities ages 3-5, weighted estimates reflect the characteristics of the population, not the sample.

LEA Weighting

The LEA weighting procedure included creating a base weight and replicate weights. District base weights were computed within each sampling stratum cell as the number of districts on the sampling frame divided by the number of districts that completed the LEA Questionnaire or had enrolled children in the study. The sum of the base weights represents 7,829 districts. To obtain the second-phase district base weights, each of the SRI-contacted districts was first assigned a weight of one and then adjusted for nonresponding districts. The resulting nonresponse-adjusted second-phase district weights were multiplied by the first-phase weights to obtain the overall district base weights for the combined sample.

To facilitate variance estimation using Westat's proprietary software, WesVar, which is based on the replication method, replicate weights were developed. Variance strata and variance units were created for each of the districts recruited. The variance strata were defined by the sampling strata by size, region, and wealth. Variance strata that had fewer than four districts were collapsed with a neighboring stratum cell with similar sampling rates. Fifty-four variance strata were created. Variance units were formed by randomly grouping districts within each variance stratum. The number of groups was determined by the number of replicates. The number of replicates in a variance stratum ranged from two to four, depending on the size of the district and the number of districts in the stratum. A total of 121 replicates were created.

The replicate weights were created using the jackknife replication method, JKn, which is appropriate for the stratified sample design. The replicates for the JKn method were created by deleting one variance unit at a time and adjusting the weights for other variance units from the same variance

stratum but leaving other weights unchanged. Deleting a variance unit is equivalent to assigning zero weight to the districts in it.

The first-phase replicate weights were created from the full-sample district base weights. In creating the second-phase replicate weights, the first-phase replicate structure was maintained, but the non-zero first-phase replicate weights were changed to one. This was done to use Westat's proprietary weighting software for nonresponse weight adjustment to calculate the second-phase replicate weights by treating unsampled districts as nonresponding districts. The nonresponse adjustment cells needed by the software were defined by the sampling stratum cell used to select the second phase sample (that is, by size, region, and wealth for the main sample; by size for the nonresponse-bias sample). The overall district replicate base weights for the combined sample were then computed as the product of the first-phase sampling weights and the second-phase nonresponse-adjusted sampling weights.

Due to the nature of the selection process, the sum of base weights for the combined sample will not be equal to the frame counts. For this reason, the district base weights for the combined sample were adjusted using post-stratification so the total base weights would be equal to the frame counts.

Post-stratification can result in reductions of the sampling variances of the survey estimates. The control totals for post-stratifying the overall district weights of the combined sample were created from the LEA sampling frame. Within each post-stratum cell, an adjustment factor was created by dividing the control total by the sum of the overall district weights.

Child Weighting: Within LEA Child Base Weight

After children's sampling is finished, the sampling status is defined by child status ID, which has 10 categories:

1 = "Entering"

2 = "Ready sample"

3 = "Sampled"

5 = "Ineligible"

6 = "Enrolled"

7 = "Declined"

8 = "Max reached/not sampled"

9 = "Max reached/deselected"

10 = "Non-response".

Children in categories 3, 5, 6, 7, 9, 10 are passed through the sampling system, and categories 5, 6, 7, 10 are selected to participate in the study. However, only children in category 6 are enrolled. Children in category 9 are selected first but then deselected due to the maximum 80 children limit for each district. This and 1, 2, 8 are treated as not passed in the sampling system. The child sampling is done using the sampling system within sampling strata defined by District ID and the five cohort IDs (3-years-old ongoing, 4-years-old-ongoing, 4-years-old-historical, 5-years-old-ongoing, 5-years-old-historical).

Our first aim was to create a within-LEA base sampling weight for children by child sampling class. This was created for all sampled and selected children (categories 5, 6, 7, 10) based on the sampling rate. The weight for a selected child i in within-LEA cohort h is defined as the inverse of the sampling rate that was applied:

$$w_{hi}^{c} = \frac{1}{r_{hi}}.$$

We will use the term LEA-cohort to mean a cohort in an LEA, which played the role of sampling stratum within the LEA. Note that the sampling rate changed during the sampling process for many LEA-cohort strata so that children in the same stratum were selected with a different sampling rate depending on the time of sampling; thus, they do not have the same base weights. The sum of unconditional base weights in a cohort is near but not equal to the child list total of the cohort. We first considered using a conditional approach that defines the within-LEA child weight based on the realized sample size instead of using the sampling rate because it cuts down the variance due to random sample sizes that resulted from the Bernoulli sampling procedure. However, this approach ran into a problem because, by chanced, 44 LEA-cohort strata did not have any children selected.

There are two exceptions to using unconditional weights:

- First, for LEA-cohort strata that have some children in categories 1, 2, 8, and 9, we used the conditional weighting method since not all the children were covered by the unconditional weighting, that is, some children were unsampled or deselected. For these cases, the conditional weight was calculated by dividing the child list total of the LEA-cohort by the actual number of children selected for the LEA-cohort:

$$w_{hi}^{c} = \frac{N_{hi}}{n_{hi}}.$$

  The conditional weight was the same for every child and summed exactly to the list total of the cohort.

- Second, after we performed the weighting using above methods, we checked the sum of weights against the list totals, by cohort, and found some large differences for which we recalculated the sampling weights using the conditional approach.

With this correction, the sum of weights was almost the same as the overall list total. The weights also agree quite well at various levels of aggregation.

The overall weight for the selected children was created by multiplying the child base weight and the LEA full sample weights, w_h defined earlier:

$$w_{hi} = w_h w_{hi}^{c}.$$

The overall child replicate weights are then obtained by multiplying the child base weight and the LEA replicate weights.

Non-Coverage Adjustment for Smallest LEAs

In the PEELS sample design, very small LEAs were not sampled. This is because very small LEAs only accounted for a small percentage of the whole target population but required more resources to sample because of their large number. We decided to adjust for the non-coverage of children in very small LEAs by increasing the base weights for children in small LEAs by a ratio factor calculated from the

original frame stratified by region and wealth. Note that only weights for children in small LEAs were adjusted. The adjusted weights are given by

$$w_{hi}^{*} = \begin{cases} w_{hi}, & \text{if size less than 4,} \\ w_{hi} f_{hi}^{\text{cov}}, & \text{if size} = 4, \end{cases}$$

where f_{hi}^{cov} is the adjustment factor.

Non-Response Adjustment of Children's Base Weight

The child base weights were adjusted to compensate for the nonresponding sample children. Each of the 4 input datasets contain all the children that have child status ID equal to 5, 6, 7, or 10, where 5 = ineligible, 6 = enrolled, 7 = declined, and 10 = non-response. Only children with child status ID = 6 are enrolled in the study. The eligibility of children with status 10 is not known. The weights of the enrolled children were adjusted to account for the unknown eligibility and nonresponse.

We first tried to use CHAID analysis to define the adjustment cells for the main sample based on the size, region, wealth, age, and placement on the ongoing or historical lists. We found that the stratification variables size, region, and wealth were the most significant predictors of nonresponse. We decided to use the stratification cell as the initial nonresponse cell. For the combined sample, we also tried to use the indicator variable showing whether a sampled child was in the nonresponse bias study sample or in the main sample as a predictor variable, but we found that it was not very significant compared to size, region, and wealth. Also, using the indicator may have produced small cells, which would cause problems in replicate weight adjustment, so we did not use this variable as a predictor.

Since the eligibility of some children was not known, adjustment was done in two stages. First, the nonresponse status was redefined as

Status	Meaning
1	Enrolled
2	Eligible but declined
3	Ineligible
4	Non-response, eligibility unknown

In the first stage adjustment, the adjusted weight was $w_{hi}^{**} = w_{hi}^{*} f_{hi}^{NR1}$, where f_{hi}^{NR1} is the factor defined in the table below. S_j is defined as the sum of weight for status j separated over all cases in each of the nonresponse cells. The nonresponse adjustment factor f_{hi}^{NR1} is determined depending on the child sample status by:

Status	Adjustment factor
1	$\frac{S_1 + S_2 + S_3 + S_4}{S_1 + S_2 + S_3}$
2	$\frac{S_1 + S_2 + S_3 + S_4}{S_1 + S_2 + S_3}$
3	$\frac{S_1 + S_2 + S_3 + S_4}{S_1 + S_2 + S_3}$
4	0

In the second stage adjustment, the adjusted weight is $w_{hi}^{***} = w_{hi}^{**} f_{hi}^{NR2}$, where the nonresponse adjustment factor f_{hi}^{NR2} is determined as shown in the following table:

Status	Adjustment factor
1	$\frac{S_1 + S_2}{S_1}$
2	0
3	1

Truncation of Weight Outliers for Children's Base Weights

After nonresponse adjustment, we truncated the weight outliers within cohorts. Sometimes a simple rule, such as the three-median rule, is used for truncation of outlying weights. This rule truncates weights that are larger than three times the median weight to three times the median weight:

$$w_{hi}^{****} = \begin{cases} w_{hi}^{***}, & \text{if } w_{hi}^{***} \le 3\,\text{Median}, \\ 3\text{Median}, & \text{if } w_{hi}^{***} > 3\,\text{Median}. \end{cases}$$

However, for some cohorts, the three-median rule caused too many weights to be truncated. We tried to keep the percentage of truncated weights to less than 3% so, for some cohorts, we used the four-

median or five-median rule. For the children who had their full sample weight truncated, all the replicate weights needed to be reduced by the same percentage.

Post-Stratification of Enrolled Children's Weight

The nonresponse adjusted children's weight was further adjusted by a post-stratification procedure. The control totals for post-stratification contained the number of special education children enrolled by December 2003, by age, which was collected from the 50 states and District of Columbia.

Post-stratification was considered not only beneficial but also necessary for a couple of reasons. Several states did not have a child sample because, by chance, no LEAs in those states were selected or no LEA responded when they were selected. It should be noted that the control totals are snap-shot figures, but the PEELS population includes children enrolled in a certain time period. The totals also included children from the very small (size 5) school districts, which were not covered by the PEELS sample.

The post-strata were formed by crossing the three age groups and 9 subregions formed by combining states within the same region by their geographical proximity. The size of states in terms of number of children was also taken into consideration in order to obtain similar sized post-strata.

After the post-stratification was applied, we created the final enrolled children's base weight. This weight is called the children's base weight, although it resulted from various adjustments, because it will be the base for further nonresponse adjustments for different data collection instruments. These are discussed in the following section.

Parent's Interview Weight

The parent interview was attempted for all enrolled children, but some parents did not respond. The weights for the parent interview data were created by adjusting the enrolled children's base weights for parent nonresponse. The nonresponse adjustment cells were the same as the ones formed for the nonresponse adjustment to obtain the enrolled children's base weight. This worked well because the response rate for the parent interview was very high (96 percent of the enrolled children).

Child Assessment Weight

The child assessment was done in two ways. Most of the children were assessed directly. But for children who could not complete the direct assessment, an alternate assessment was conducted. Child assessment weights were created for both the direct and alternate assessments. Together, they represent the whole population, and each is a sample from the corresponding subpopulation of either directly assessable children or directly unassessable children. The child assessment weight was created by using the enrolled children's weights as base weights, adjusted for the nonresponse of children in the assessment data. The nonresponse adjustment cells were the same as the ones formed for the nonresponse adjustment to create the enrolled children's base weight. The response rate was very high (94 percent of the enrolled children).

Teacher Weights

Each teacher questionnaire was associated with an individual child, so the teacher weight was created by using the enrolled children's weights as base weights, adjusted for the nonresponse of teachers. The nonresponse adjustment cells were the same as the ones formed for the nonresponse adjustment to create the enrolled children's base weight.

Appendix F: Number of Children Who Had Test Accommodations

Table F-1. Unweighted number of children who had various test accommodations in the PEELS Wave 1 direct assessment, by gender: School year 2003-04

	Male	Female
Adaptive furniture	11	8
Communication device	6	3
Enlarged print	‡	‡
Familiar person administered test	‡	‡
Familiar person present	125	49
Multiple test sessions	68	33
Person to help child respond	10	4
Sign language interpreter	‡	‡
Other	10	4

‡ Reporting standards not met.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (May 2006).

Table F-2. Unweighted number of children who had various test accommodations in the PEELS Wave 1 direct assessment, by race/ethnicity: School year 2003-04

	Black	Hispanic	White
Adaptive furniture	5	‡	11
Communication device	4	‡	3
Enlarged print	‡	‡	‡
Familiar person administered test	‡	‡	‡
Familiar person present	38	10	115
Multiple test sessions	12	7	72
Person to help child respond	4	‡	8
Sign language interpreter	‡	‡	‡
Other	4	‡	9

‡ Reporting standards not met.
NOTE: Some children who had accommodations are not included in this table because their race/ethnicity is not Black, Hispanic or White.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (May 2006).

Table F-3. Unweighted number of children who had various test accommodations in the PEELS Wave 1 direct assessment, by primary disability: School year 2003-04

	AU	DD	ED	LD	MR	OI	OHI	SLI	LI
Adaptive furniture	‡	7	‡	‡	‡	6	‡	‡	4
Communication device	‡	‡	‡	‡	‡	‡	‡	‡	6
Enlarged print	‡	‡	‡	‡	‡	‡	‡	‡	‡
Familiar person administered test	‡	‡	‡	‡	‡	‡	‡	‡	‡
Familiar person present	16	48	‡	7	5	‡	5	76	8
Multiple test sessions	6	37	3	3	‡	4	‡	36	8
Person to help child respond	3	‡	‡	‡	‡	‡	‡	7	‡
Sign language interpreter	‡	‡	‡	‡	‡	‡	‡	‡	‡
Other	‡	4	‡	‡	‡	‡	‡	7	‡

‡ Reporting standards not met.
NOTE: AU = Autism; DD = Developmental delay; ED = Emotional disturbance; LD = Learning disability; MR = Mental retardation; OI = Orthopedic impairment; OHI = Other health impairment; SLI = Speech or language impairment; LI = Low incidence.
Some children who had accommodations are not included in this table, because they did not have a disability at the time the teacher questionnaire was administered; the teacher questionnaire was the source of the disability variable.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview," Early Childhood Teacher Questionnaire, and "Kindergarten Teacher Questionnaire," previously unpublished tabulation (May 2006).

Table F-4. Unweighted number of children who had various test accommodations in the PEELS Wave 1 direct assessment, by age cohort: School year 2003-04

	Cohort A (age 3)	Cohort B (age 4)	Cohort C (age 5)
Adaptive furniture	4	9	6
Communication device	‡	‡	6
Enlarged print	‡	‡	‡
Familiar person administered test	‡	‡	‡
Familiar person present	58	65	51
Multiple test sessions	35	39	27
Person to help child respond	3	3	8
Sign language interpreter	‡	‡	‡
Other	5	3	6

‡ Reporting standards not met.
SOURCE: U.S. Department of Education, National Center for Special Education Research, Pre-Elementary Education Longitudinal Study (PEELS), "Parent Interview", previously unpublished tabulation (May 2006).