

A Portrait of Pre-kindergarten

In 2001, 43 states were offering some form of prekindergarten (pre-K). They invested over \$2 billion in education-related pre-K programs and served over 740,000 children. But little documentation of pre-K quality existed until the 2001 initiation of the Multi-State Study of Pre-kindergarten by the National Center for Early Development & Learning (NCELD). Although several surveys of state pre-K programs have been conducted, this effort represents the first multi-state study to include extensive classroom observations, child assessments, and kindergarten follow-up. The findings fill an information gap about pre-K and serve as an information base for states and education agencies starting or expanding services for young children and their families. Articles co-authored by scientists from FPG, the University of Virginia, and the University of California at Los Angeles summarize the study and appear in recent issues of *Applied Developmental Science* and *Principal*.



Background of Study

The study is based on data collected from 240 state-funded pre-K programs in Georgia, Illinois, Kentucky, Ohio, and regions of California (Los Angeles and Central Valley) and New York (New York City and Albany). Of all 4-year-olds attending state pre-K programs in the U.S., about half are in these six states. For this study, “pre-K” applies to center-based programs for 4-year-olds that are fully or partially funded by state education agencies and that are operated in schools or under the direction of state and local education agencies.

Within each state, a sample of 40 centers/schools was selected at random. One classroom in each center/school was selected at random for observation, and four children in each classroom were selected for individual assessment (language, literacy, and number skills). Data collection tracked children from the beginning of pre-K through first grade.

Pre-K Children and Teachers

Major findings about **children** in this study:

- More than half of the children enrolled were from low-income families.
- African American, Latino, and Asian children were more likely than White children to be in a pre-K class with a high concentration of poor children.
- A large percentage of the mothers had only a high school education or less.
- Almost one-quarter of the children spoke a language other than English at home.
- With their entry into pre-K, the language ability of most children from low-income families was below the national average, as was their math ability. On standard measures of language and math, these children made small but meaningful gains from fall to spring of their pre-K year.

Major findings about **pre-K teachers** in this study:

- They averaged 42 years of age; most were female and White.
- Overall, about 70% of teachers had at least a bachelor’s degree.
- About half had at least a bachelor’s degree and state certification to teach 4-year-olds.
- About 30% had a two-year degree or no formal degree past high school.
- Pre-k teachers’ salaries were higher than those of child care teachers and approached the salaries of public school teachers.
- Teachers with lower qualifications (less than a bachelor’s degree) were more likely to teach poor children and children who were African American or Latino.

CONTINUED

Concern exists that the children most in need of high quality early childhood experiences are being taught by less qualified pre-K teachers. The teacher population is less diverse than that of the children and families served by pre-K programs. It is important for administrators and teachers to understand the needs of children and families whose traditions, experiences, and expectations may differ from their own.

Classroom Quality

There are two ways to look at a classroom.

Structural quality refers to attributes that can be regulated such as class size, teacher education and experience, teacher-to-child ratio, length of the day and year, and use of a standard curriculum. **Process quality** entails children's opportunities and experiences on a day-to-day basis.

Many of the pre-kindergarten classrooms in this study had an acceptable structural quality. For example, all classrooms had a 1:10 teacher-child ratio or better, and 86% were at or lower than the maximum class-size recommendation of 20 children. Nearly all teachers reported using a standard curriculum of some type.

Despite the relatively high structural quality revealed in the study, process quality was lower than expected. Using the *Early Childhood Environment Rating Scale-Revised* (ECERS-R)—a widely used measure of classroom quality—observers noted everything from children's hand-washing routines to interactions with their teachers. Observers inspected the variety, organization, and availability of materials such as books, fine motor toys, blocks, science and math materials, and play props. They also recorded how teachers supervised and engaged children in conversation and whether both teachers and children were happy and productive.

On the ECERS-R, a score of 7 indicates "excellent" quality; a score of 5, "good" quality; and a score of 3, "minimal." In this sample of 240 pre-K classrooms, the average score on the ECERS-R was 3.86. This score is lower than expected, given the positive structural quality. It reflects an environment not geared to maximize learning opportunities for children. A second measure of learning environment, the *Classroom Assessment Scoring System* (CLASS), also revealed shortcomings in the instructional aspects of preschool classroom settings in the study.

Observers also watched what the children did on a minute-by-minute basis, using a measure called the **Snapshot**. Children were observed spending large amounts of time in routine activities such as meals and snacks or toileting, or in transitions between activities. Literacy activities took place only one-eighth of the time. Children were involved with a teacher or other adult in less than one-third of the time observed.

Beyond the Study

NCEDL researchers continue to analyze data from the classroom in the six states to look for predictors of classrooms with more teacher-child interactions and more child engagement in learning activities.

They have conducted a second multi-state study of pre-K, the Study of Statewide Early Education Programs (SWEEP), gathering comparable data from five more states with state-funded pre-kindergarten.

A report featuring combined data from the Multi-state Pre-kindergarten Study and SWEEP offers an initial descriptive picture of pre-K children and classrooms in 11 states. With numerous pre-K programs having grown dramatically in recent years, these studies offer significant information as states face the challenge of improving quality and instruction.

Because this preliminary report represents a first glance at pre-kindergarten, more information will follow. Results will be posted on the FPG website in the future. ■

To Learn More

This snapshot is based on the following articles:

Clifford, R. M., Barbarin, O., Chang, F., Early, D. M., Bryant, D., Howes, C., Burchinal, M., & Pianta, R. (2005). What is pre-kindergarten? Characteristics of public pre-kindergarten programs. *Applied Developmental Science*, 9(3), 126-143.

Pianta, R., Howes, C., Burchinal, M., Bryant, D., Clifford, R. M., Early, D. M., & Barbarin, O. (2005). Features of pre-kindergarten programs, classrooms, and teachers: Prediction of observed classroom quality and teacher-child interactions. *Applied Developmental Science*, 9(3), 144-159.

Clifford, R. M., Bryant, D. M., & Early, D. M. (2005). What we know about pre-K programs. *Principal*, 85(1), 20-24.

For additional information on the **Multistate Study of Prekindergarten**, go to:

www.fpg.unc.edu/~ncedl/pages/pre-k_study.cfm

www.fpg.unc.edu/~ncedl/PDFs/ED9_1.pdf

For a copy of the **Combined SWEEP and Multi-State Study of Pre-Kindergarten Findings**, go to: www.fpg.unc.edu/ncedl/pages/products.cfm#sweep_ms



Snapshots are summaries of research articles, books, and other publications by researchers at the FPG Child Development Institute at UNC-Chapel Hill. Permission is granted to reprint this article if you acknowledge FPG and the authors of the article on which this **Snapshot** is based. For more information, call the FPG Publications Office at 919-966-4221 or email <FPGpublications@unc.edu>. Visit us at <www.fpg.unc.edu>.



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL