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early developments

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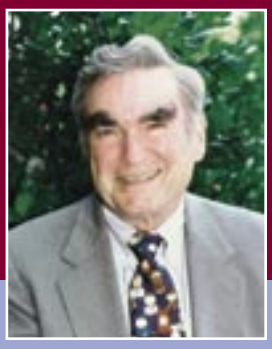
NCEDL Pre-kindergarten Study

news



'Enduring Contribution' Award Given to Former FPG Director

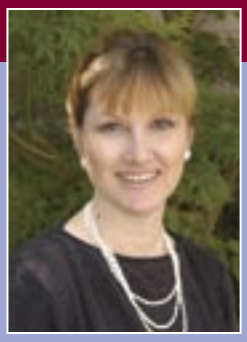
Dr. James Gallagher, senior scientist and former director of FPG, has received a lifetime achievement award from the America Psychological Foundation (APF). Gallagher will be presented with the 2005 Gold Medal for "enduring contribution by a psychologist in the public interest, at the foundation's convention this fall. In addition, APF will donate $2,000 to a charity designated by Gallagher.

FPG Director Dr. Don Bailey praised Gallagher for his "lifetime achievements of leadership, scholarship and devoted commitment to the needs of students with exceptionalities."

Gallagher is considered an internationally known expert on gifted children as well as on early childhood policy. He is also a Kenan Professor emeritus at UNC and senior policy scientist at the National Center for Early Development & Learning (NCEDL).

Gallagher's many awards include: J. E. Wallace Wallin Award for Contributions to Special Education, 1967; John Fogarty Award for Distinguished Government Service, 1972; Council for Exceptional Children Service to the Field Award, 1990; National Association for Gifted Children Distinguished Service to the Field Award, 1995 and 1999; and The World Council for Gifted and Talented Children Distinguished Service Award, 1997.

Gallagher has served in numerous professional positions including president of the National Association for Gifted Children; the Council for Exceptional Children; and the World Council for Gifted and Talented Children; and member of Boards of Directors for the Association for the Gifted, and the Council for Exceptional Children.



Employee of Year Award Goes to FPG Publications Director

The inaugural employee-of-the-year award by the Research and Economic Development Office at The University of North Carolina at Chapel Hill has been awarded to Gina Harrison, director of publications at the FPG. The award was presented during a recent luncheon by Dr. Tony Waldrop, vice chancellor for research and development at UNC.

FPG Director Dr. Don Bailey praised Harrison for "creating visually engaging and attractive products for scientists as well as non-researchers."

Harrison has been with Carolina for 20 years.

|ed| contents

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NCEDL Directors' Notes

Donna Bryant is a Senior Scientist and the Co-Director of NCEDL

Dick Clifford is a Senior Scientist and the Co-Director of NCEDL

STATE-FUNDED PRE-KINDERGARTEN is a growing phenomenon in the United States. The majority of 4-year-olds now spend some time every weekday in care outside of their home and many of these children are being served in preschool classrooms funded with state education dollars. The public strongly supports such programs and there is generally bipartisan political support for pre-K education.

Because the outlook is good for the future of pre-K, we want to do all that we can to ensure that new programs are the best they can be for the young children who attend them. To that end, over the past 4 years, the National Center for Early Development & Learning's (NCEDL) work has been devoted to research on public pre-K classrooms, teachers, and children. We are pleased that this issue of *Early Developments* is devoted entirely to the findings of this research.

When you read the articles, though, you will see that the findings are somewhat disappointing. We wish we could report that state-funded pre-K programs are uniformly of high quality with exemplary classroom practices. Unfortunately, this is not the story we tell in this issue. The research endeavor places scientists in uncomfortable situations when the results we find are not the results we wanted. However, one of the most important purposes of research is to document and understand various conditions in people, families, schools, or other systems. The more we understand those conditions, the better able we are to improve them. If we can find out what works, others can advocate for it. If we find out what doesn't work, perhaps our data will indicate how to improve the situation. Such information is particularly valuable in the early stages of program implementation—the stage pre-K is in now—before programs get fully set in place.

This pre-K study could not have taken place without excellent collaborations at many levels. Our colleagues at the University of Virginia and the University of California at Los Angeles worked together with our team at FPG to design and carry out the study in 6 very diverse states. The state early childhood specialists across the 50 states, through their organization, gave us good advice about launching the study. They have also been keen listeners and questioners as they have learned about the results. In the participating states, the state early childhood teams provided access to their pre-K programs and helped us understand circumstances specific to their states. Data collectors in every state dedicated countless hours to contacting and visiting programs and children. And, we are most indebted to the hundreds of teachers, parents, administrators—and especially the children—who participated in this project. Clearly, no research would be possible without the dedication of

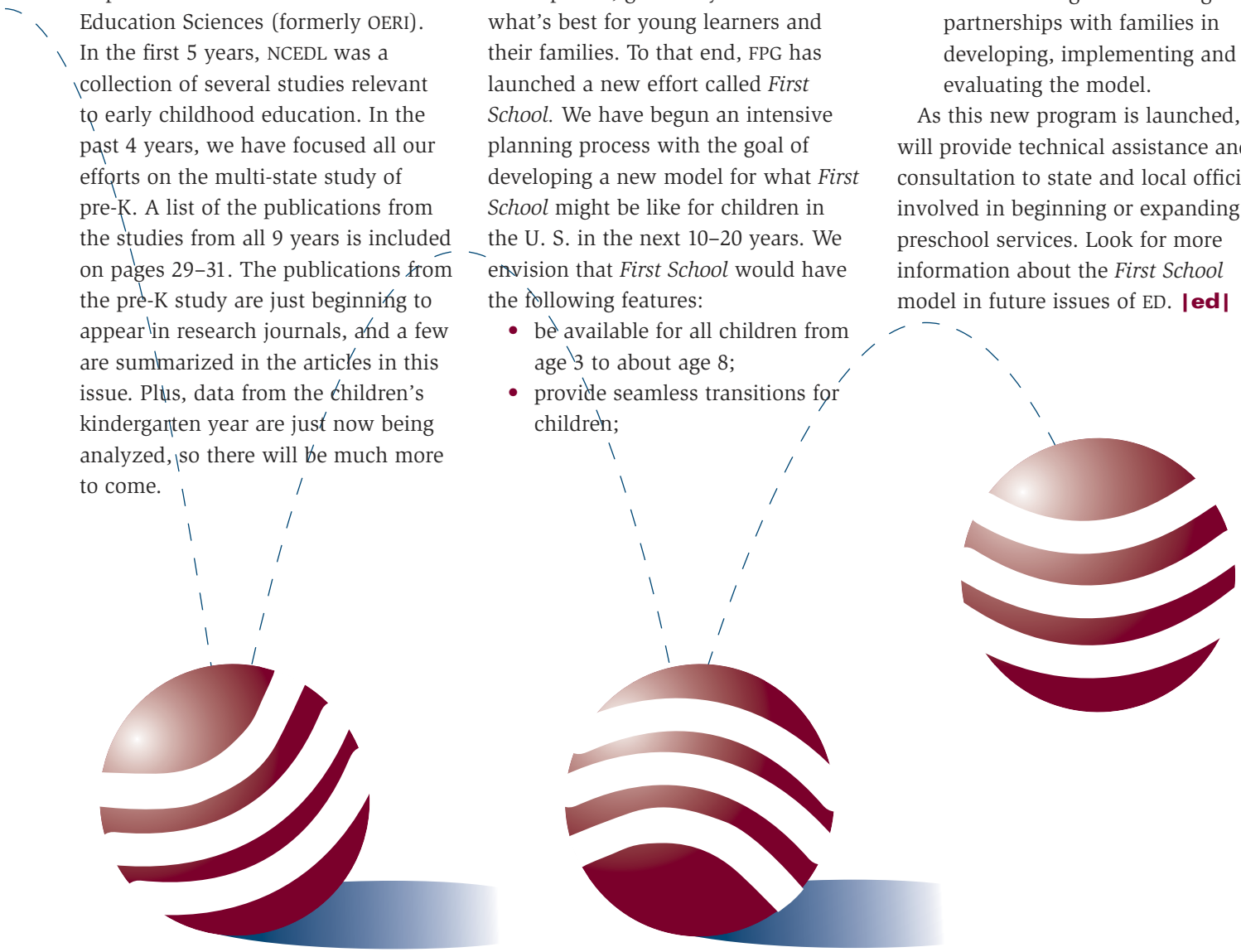
the research participants. These many collaborations have helped the study progress at every stage and have also been interpersonally very rewarding.

Our 3-university team of researchers is now ending 9 years of work as the National Center for Early Development & Learning, funded by the U. S. Department of Education's Institute of Education Sciences (formerly OERI). In the first 5 years, NCEDL was a collection of several studies relevant to early childhood education. In the past 4 years, we have focused all our efforts on the multi-state study of pre-K. A list of the publications from the studies from all 9 years is included on pages 29–31. The publications from the pre-K study are just beginning to appear in research journals, and a few are summarized in the articles in this issue. Plus, data from the children's kindergarten year are just now being analyzed, so there will be much more to come.

The findings of the pre-K study and our experiences with other work at FPG have caused us to rethink school entry in America. We think that pre-K classroom practices and the transition of 3- and 4-year olds into public school systems need a great deal more thoughtful discussion and development, guided by research on what's best for young learners and their families. To that end, FPG has launched a new effort called *First School.* We have begun an intensive planning process with the goal of developing a new model for what *First School* might be like for children in the U. S. in the next 10–20 years. We envision that *First School* would have the following features:

- be available for all children from age 3 to about age 8;
- provide seamless transitions for children;
- integrate and align curriculum across grades;
- provide developmentally appropriate facilities and activities;
- focus on academic skills, social-emotional development, and physical health;
- involve strong and meaningful partnerships with families in developing, implementing and evaluating the model.

As this new program is launched, we will provide technical assistance and consultation to state and local officials involved in beginning or expanding preschool services. Look for more information about the *First School* model in future issues of ED. **|ed|**



Pre-K Education in the States

THE WAY WE CARE FOR AND EDUCATE YOUNG CHILDREN in the United States has changed dramatically in the past forty years. In the past, it was rare for children to be cared for outside the home, whereas today, most children experience group care before coming to kindergarten. Public schools are increasingly involved in providing pre-kindergarten (pre-K) education to four-year-olds (and some three-year-olds).

By 2001, 43 states were offering some form of pre-K. A recent report suggested that as many as 25% of all four-year-olds in the U.S. are being served in preschool classrooms under the auspice of the public schools.

One motivating factor for states to implement public pre-K is that large numbers of children are failing to meet educational standards in the early grades. Many state pre-K programs were established to serve children thought to be at risk of later school failure with the idea that early, high quality, learning experiences can help them make a smooth transition to school and be successful.

Other state pre-K programs acknowledge that *all* young children stand to benefit from positive early educational experiences, so they are striving to operate universal pre-K. In fact, a number of national organizations (e.g., the American Federation of Teachers, the Committee for Economic Development, and the Council of Chief State School Officers) now suggest that all four-year-olds should have access to pre-K.

Researchers at the National Center for Early Development & Learning (NCEDL), housed at the FPG Child Development Institute (FPG) at The University of North Carolina at Chapel Hill, believe that in the next 10 to 20 years, public schools will be the primary agency for meeting child care and learning needs of three- and four-year olds.

With funding from the Institute of Education Sciences at the U.S. Department of Education, investigators at three universities have been collaborating to run the Multi-State Study of Pre-Kindergarten. Several investigators are at FPG and others are at the University of California at Los Angeles and the University of Virginia.

As the Multi-State Study began in 2000–2001, the team conducted a 50-state survey of states' pre-K program administrators. The survey questions covered basic program information on certain policy and program design issues.

"Pre-kindergarten" and "pre-K" are used here to refer to classrooms for four-year-olds that are fully or partially funded by state education agencies and operated in schools or under the direction of state and local education agencies.

'Remarkable Variability'

Results showed the remarkable variability across states in the way in which pre-K programs are being implemented.

On every dimension assessed, the range is considerable. All states that have pre-K programs serve four-year-olds, but almost half also include threes and some even include younger children. All states focus on children at risk, but three have universal programs where the state attempts to serve all four-year-olds.

The definitions of "risk" vary widely across states. Low family income is almost always viewed as a risk, but sometimes other risk factors are considered, such as parents who are unemployed or suspected of abuse/neglect, or child factors such as low-birth-weight or limited English proficiency.

Most states serve small percentages of their four-year-olds. Only Georgia, New York, and Oklahoma are working toward universal access and sufficient funding to serve large percentages of their four-year-olds. Among states that target at-risk children, only New Jersey and Ohio seem to have dedicated sufficient funds to serve most of their targeted population in pre-K, although New Jersey did it under court order.

Few states restrict pre-K to school buildings but in several, pre-K is very much associated with schools because of the high percentages of classes offered in schools. Most states also fund programs that are in child care centers and Head Start programs as well as in public schools, taking advantage of existing resources and buildings.

The majority of state-funded pre-K programs (59%) require services to be offered for 2.5–4 hours per day. Half of the states require that classes be held five days a week for 9–10 months a year. Only seven states, all in the south, offer six-hour school-like days. In most states, wrap-around child care funds allow some pre-K programs to offer additional hours for children who qualify.

To receive state pre-K funding, most states require programs to meet certain standards, but these requirements also vary widely. For example, adult-child ratios range from 1:6 to 1:10; group size from 15 to 24; and minimum teacher qualifications range from a Child Development Associate's credential, which requires about one year of post-secondary

education, to a Bachelor's degree with a state teaching certificate.

In sum, large variations exist in the characteristics of public pre-K that is offered to children across the United States.

How Did We Get Here?

How did America arrive at this uneven non-system called "pre-K"? It appears that some states have adopted pre-K standards that are modifications of K–3 standards, while the standards of other states seem to be child care standards that have been made more stringent for pre-K.

Although the NCEDL survey did not assess this issue, these two approaches could reflect states' different starting points and motivations as they made decisions to serve four-year olds. Decision-makers in some states may have been trying to improve the child care system so that preschoolers' group care experiences better prepare the children for school. In other states, decision-makers may have begun their pre-K enterprise to be "school-like."

In either case, states may have made decisions to create state-funded pre-K programs in existing preschools and Head Starts so as not to disrupt existing systems of early care and education and because space constraints prevented them from creating purely school-based systems. Possibly, states were hoping to also improve the existing system of care. Different philosophies seem to have led to different program models and standards.

Implications of Such Diversity

What are the implications of such diversity in how pre-K programs are structured and housed? Is it a problem to have such variety across the states in their pre-K programs?

Dr. Donna Bryant, co-director of NCEDL and associate director of FPG said, "We just don't have enough evidence to answer this question yet. It would seem possible to arrive at good outcomes for kids in a number of different ways, but on the other hand, I suspect that some standards or practices are just not good enough."

She pointed out that although significant amounts of federal and local funds flow into the education and child care systems, these are basically state responsibilities. "It is not surprising that a vast array of structures and regulations have evolved and this variety may not be a problem in and of itself. What is critical is that states find ways to achieve high quality programs that are available to large numbers of children. A single system or structure across states is probably not necessary to achieve high quality, but quality should be the focus of all states," she said.

As the states experiment with different types of pre-K programs, what changes might take place? Only a handful of states serve more than 20% of their four-year-olds in state-funded pre-K programs, so all states—even those with existing pre-K programs—will likely increase the size of their programs over the next few years.

"As growth in these programs increases, practical experience will also increase and may bring about programmatic change," said Bryant. "We need to document the status of states' pre-K programs over time in order to understand the trends."

Dr. Oscar Barbarin, an NCEDL researcher at FPG and a professor in social work at The University of North Carolina at Chapel Hill, said, "We should also be concerned about educating at-risk pre-kindergartners in homogeneous classes, as many states do. If children's first school experiences are in classes where all their classmates are also at-risk, are the children socially prepared for a kindergarten that might be more integrated with children of all types and abilities?"

Such homogeneous classes might also require more extensive extra services such as speech, language, and physical therapies.

Pre-K Expenditures

At the time of the NCEDL survey (2000–01) states invested over $2 billion in education-related pre-K programs and served over 740,000 children. The per capita spending by the states ranged from less than $1,000/child to greater than $5,000/child. However, these numbers significantly underestimate the cost of pre-K, because programs receive money from many sources, not just the state. "Accurate cost data are notoriously hard to collect," said Dick Clifford, co-director of NCEDL and a senior scientist at FPG.

It should be noted that since the NCEDL survey data were gathered, Nevada and North Carolina began statewide pre-K initiatives and some states such as Illinois, Louisiana, and New Jersey have expanded programs. Texas has extended the length of the pre-K day in many locations.

However, in the past few years, a number of states have decreased their funding for pre-K. "Recent budget problems in many states will result in a slower expansion of state pre-K than originally intended," said Dr. Robert Pianta, principal investigator of the NCEDL site at the University of Virginia.

Clearly, a more in depth study of pre-K financing is warranted, he said.

Many Unanswered Questions

The survey data provided a picture of the diversity of public pre-K in America, especially the variety of ways in which

it is being implemented across the states. States continue to explore the best ways of providing this important service to young children and their families.

However, at the same time, "there is a press for expansion of pre-K programs in the hope that we will be able to better prepare all young children for school, especially young children at-risk for later learning difficulties," said Bryant. "State policymakers see pre-K as the way to address the achievement gap between poor and non-poor children and help all children get a good start on the road to success."

The lack of knowledge about the effectiveness of the different types of programs is a significant hindrance to policymakers as they continue to make decisions about pre-K, she said. The potential influence of pre-K programs on children's kindergarten readiness has been a primary motivation for states to begin or to expand pre-K programs.

Important questions that remain include:

- Are a minimum number of hours needed for children to achieve learning goals? Should pre-K be a full school day to help children be ready for school?
- Do children make more progress and retain those skills when their pre-K classrooms are in elementary schools or in other community programs?
- What are the minimum standards for teacher education? Do Bachelor's level teachers provide a more optimal learning environment or can well-supervised Associate's degree teachers do the same?
- Are pre-K classrooms of sufficient quality to ensure learning? What is the distribution of quality and practices in typical state pre-K programs?
- Who gains the most from attending these programs? Do children from low-income families or with other risk factors benefit more from pre-K than typical children from middle-income families? Is higher quality positively associated with better child outcomes, as has been seen in child care research?
- And perhaps most important, what are the outcomes in kindergarten for children who attend these public pre-K programs?

With funding from the U.S. Department of Education, the NCEDL team tried to answer these questions with the Multi-State Study of Pre-Kindergarten. This six-state study was conducted between 2001 and 2003 and is the focus of the next three articles in this issue of *Early Developments*.

The study involved four states—Georgia, Illinois, Kentucky, and Ohio—and two large regions of two other states—California (Los Angeles and the Central Valley) and New York (New York City and Albany areas).

NCEDL researchers can't yet answer all the important questions listed above, but are using the data from this study to make a start.

"More within-state studies would be helpful, but cross-state studies like NCEDL's Multi-State Study of Pre-K and the Study of State Wide Early Education Programs (SWEEP) [see sidebar on page 26] will be especially useful," suggested Bryant.

It is clear that states are investing large amounts of state tax dollars in pre-K programs with the expectation that early learning goals can be met. State and local officials are striving to provide the best programs possible.

Bryant said that much still needs to be learned about exactly what is being provided in these programs and how decisions about structural features and classroom practices lead to programs that meet these high expectations. **|ed|**

TO LEARN MORE

Additional articles based on study findings will be published soon.

Information about these will be at
www.fpg.unc.edu/~ncedl

Who Goes to Pre-K & How Are They Doing?

IN THE PAST TWO DECADES, schools and school districts have become increasingly involved in the education of children younger than kindergarten. This study, NCEDL's Multi-State Study of Pre-Kindergarten, provides one of the first detailed pictures of the children in these programs.

The data from the study are statistically representative of all of the pre-K children and programs in the four states and two regions participating.

Who Are the Children in Pre-K?

Most states offer pre-K programs to children from poor families or at risk for learning delays because they want to help those children succeed in school.

However, two states in the study (Georgia and New York) are moving towards universal pre-K where any four-year-old can enroll regardless of characteristics like family income. Across these six states, pre-kindergartners were quite diverse ethnically, economically, and linguistically.

Fifty-three percent of pre-K children were from families that earned less than 150% of the federal poverty guideline, although the range of family income went quite high because the study included two universal pre-K states. 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. This is probably because of the strong linkages between poverty and ethnicity in America.

The NCEDL Multi-State Study of Pre-Kindergarten

Classroom observations, child assessments, and questionnaires were collected from representative samples of children, teachers, and classrooms beginning in the fall of 2001.

In four states—Georgia, Illinois, Kentucky, and Ohio—and two large regions of two other states—California (Los Angeles and the Central Valley) and New York (New York City and Albany areas), 240 state-funded programs were randomly selected.

More than 900 pre-K children participated in the study. The results are representative of over 211,000 pre-K children in the participating areas.

A large proportion (42%) of the children's mothers had only a high school education or less, a characteristic also associated with poverty.

In the year before pre-K, most children were in some form of out-of-home care or education, though nearly a third were cared for exclusively at home. A majority of parents reported their children's health to be very good or excellent.

Spanish-speaking children were enrolled in pre-K programs in the same large numbers as in the older grades. Nationally, English language learners (ELL) comprise 12% of the elementary school population. According to the NCEDL study, 23% of pre-kindergartners spoke a language other than English at home, although about half of them spoke some English at home, too. The pre-K teachers reported that 16% of the children were ELL.

Dr. Diane Early, study coordinator and a scientist at the FPG Child Development Institute (FPG) at UNC-Chapel Hill, said, "One of the challenges that pre-K programs will face as they expand is responding sensitively and appropriately to a population of children who are so diverse, in terms of ethnicity, race, family income, and dominant language."

Dr. Richard Clifford, co-director of NCEDL and a senior scientist at FPG, said, "The finding that classes with the highest concentration of poor children also were classes that were predominantly African American or Latino illustrates the difficult task of disentangling race and ethnicity from socio-economic backgrounds."

Most states that have implemented pre-K (including four of the states in this study) are targeting children who might be at-risk for later academic problems by using family income as the main criterion for enrollment.

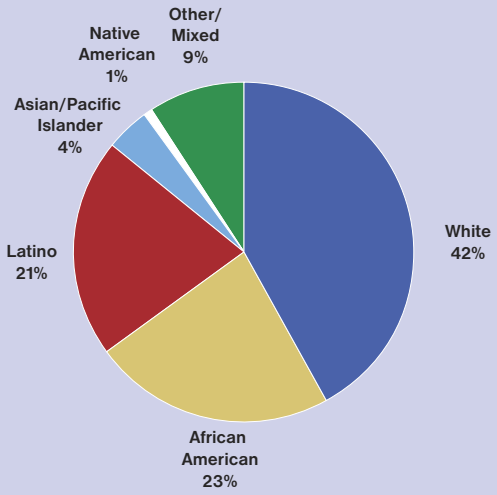
Clifford said that this enrollment strategy is often viewed as a means of closing the achievement gap that exists between poor and non-poor children, as well as between White children and children of other racial or ethnic backgrounds.

Clifford said, "The diversity we see in the pre-K population emphasizes the importance of understanding the needs of children and families whose

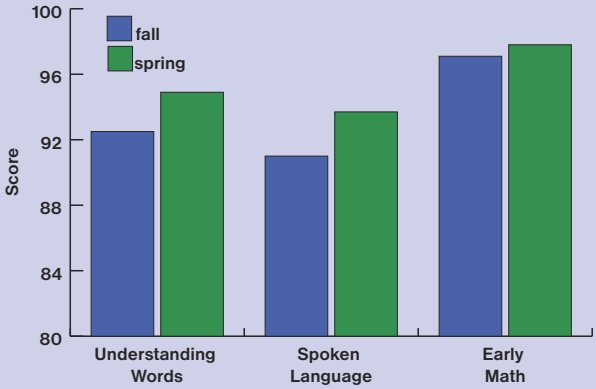
A Picture of Pre-K Children as They Start the School Year

- 46% were girls; 54% were boys.
- 23% spoke Spanish or another language other than English at home.
- More than half the families were low-income.
- This was the first classroom-based experience for half of the children.
- 78% of parents rated their child's health as very good or excellent.
- Children's ability to understand words and speak were well below national average.

Pre-K Children's Race/Ethnicity

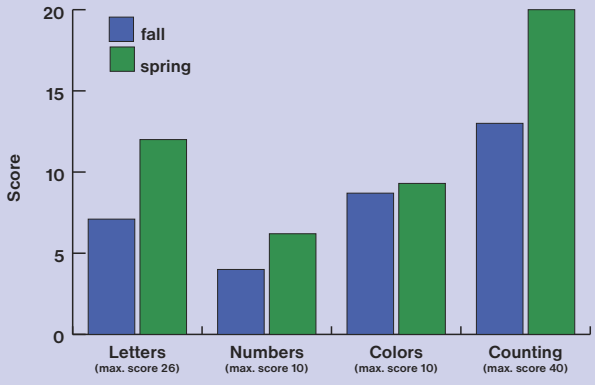


Children's Performance Across the Pre-K Year on Standardized Measures*



* These measures are designed so that at each time point the average child will score 100. This graph indicates that pre-K children scored well below the norm when they started pre-K, but made gains over the school year, more so in language than in math.

Children's Performance Across the Pre-K Year on Non-Standardized Measures



traditions, experiences, and expectations may be different from those of program teachers and administrators."

How Are the Children Doing?

In the fall and spring of pre-K, randomly selected four-year-olds who spoke English well enough to be assessed were given some standardized tests, measures on which the average U.S. child would score 100. [Spanish-speaking children whose English skills were not advanced enough for assessment in English were assessed in Spanish. Those results are not included here. Ability to understand words was measured using the *Peabody Picture Vocabulary Test* (PPVT), 3rd edition. Understanding and use of spoken language was measured using the OWLS (*Oral & Written Language Scales—Oral Expression Scale*). Early math was measured using the Applied Problems sub-test of the *Woodcock Johnson III Tests of Achievement*.] Given that many of these pre-K programs targeted children at-risk for school difficulties, it was not surprising to the researchers to learn that the children's language, literacy, and number skills were below the norm when they entered pre-K.

Their abilities to understand and use words were well below the national average, and their early math scores were somewhat below (see graph). Their social behavior, as rated by their pre-K teachers, was just fine.

If indeed the purpose of state initiated pre-K programs is to increase school-related academic and social skills at the time that the children enter kindergarten, then did the pre-K programs in the NCEDL study achieve this goal?

The answer appears to be "yes."

On standardized measures of language and math, children made small but meaningful gains from the fall to the spring of their pre-K year. Dr. Carollee Howes, NCEDL researcher and principal investigator of the UCLA site, said that most of these children from low-income families had likely been losing ground each year, academically. "Pre-K experiences stopped children's academic declines and even helped them catch up a bit," she said.

The second graph shows children's fall and spring scores on some skills that children typically learn in pre-K: naming letters, numbers, and colors, and counting. Children's performance varied widely on these tasks, but on average, the group gained in knowledge over the pre-kindergarten year.

Howes said, "These results make us optimistic about the promise of pre-K programs to help begin bridging the achievement gap in this country." Noting that other results from this six-state study suggest that the quality of the classrooms was uneven (see next ED article), Howes said that the small but significant effects on children seen in this study, could be even greater. "Imagine what we could do if all programs were of high quality." **|ed|**

Design of the Multi-State Study

During the Multi-State Study of Pre-Kindergarten, NCEDL researchers gathered detailed information about what was actually happening in the pre-K and kindergarten classrooms, as well as how the children were doing.

They learned what early childhood teachers think about child development and how they actually teach, including instructional practices around language, literacy, mathematics concepts, and social-emotional competencies.

Within the 40 pre-K classrooms in each participating state, carefully trained data collectors conducted multiple days of classroom observations in the fall and spring. Four randomly selected children took part in a one-on-one assessment of his or her pre-academic skills during the fall and spring of the pre-K year (2001–02).

The same children were followed into kindergarten and assessed in the fall and spring of 2002–03 and kindergarten classroom observations were made. These articles focus on the pre-K data; kindergarten data are being analyzed now. Additionally, administrators/principals, pre-K and kindergarten teachers, and parents completed questionnaires about themselves and the children. A study of about half the families used individual home-based interviews to gather more information from families and to videotape parent-child interactions.

These data will provide early childhood teachers and administrators, policymakers, families, and teacher educators with a thorough description of pre-K and kindergarten classroom environments. They will also help researchers understand how teachers' professional development and training experiences relate to their classroom practices and how classroom practices relate to children's learning and development.

Measures

Listed below are some of the measures used by NCEDL. If you want to know more about the measures, visit www.fpg.unc.edu/~ncedl/pages/measures_0103.cfm

Classroom Observations

Early Childhood Environment Rating Scale—Revised (ECERS-R). (Harms, Clifford, Cryer, 1998). Measure of global classroom quality.

Classroom Assessment Scoring System (CLASS). (Pianta, La Paro, & Hamre, 2004). Measures the nature and quality of teacher-child interactions and the quality of instruction.

Emerging Academic Snapshot. (Ritchie, Howes, Kraft-Sayre, & Weiser, 2001). Time-sampled measure of how children spend their time.

Direct Assessments of Children's Skills

Peabody Picture Vocabulary Test 3rd edition (PPVT-III). (Dunn & Dunn, 1997). A standardized measure of children's understanding of vocabulary words.

Oral & Written Language Scales (OWLS) (Oral Expression Scale). (Carrow-Woolfolk, 1995). A standardized measure of a child's understanding and use of spoken language.

Woodcock-Johnson III Tests of Achievement. (Woodcock, McGrew, & Mather, 2001).

Applied Problems Subtest: A standardized measure of children's ability to analyze and solve math problems.

Sound Awareness-Rhyming Subtest: A non-standardized measure of the ability to rhyme, a component of phonological awareness.

Identifying Letters, Numbers, Counting and Writing. (NCEDL, 2001). Non-standardized measures of children's ability to identify letters and numbers, to count and to write their name.

Color Bears. (Zill & Resnick, Head Start Family and Child Experiences Survey, 1998). Non-standardized measure to assess color recognition and identification.

Teacher Reports

Teacher-Child Rating Scale. (Hightower et al., 1986). Teachers' ratings of children's social competence and behavior problems.

Language and Literacy Skills. (National Center for Education Statistics, 1999). Teachers' ratings of children's language and literacy skills; items are from the teacher questionnaire of the Early Childhood Longitudinal Study – Kindergarten Cohort.

Teacher Attitudes and Beliefs. (Schaefer & Edgerton, 1985). A measure of teachers' adult-centered versus child-centered beliefs.

Student Teacher Relationship Scale. (STRS; Pianta, 2001). Teacher's rating of the closeness and conflict in relationship with specific child. ■

Who Are the Pre-K Teachers? What Are Pre-K Classrooms Like?

STATES ARE FUNDING PRE-K PROGRAMS for young children in the belief that these programs will help children be better prepared for success when they enter kindergarten. This belief is well-founded, based on the results of several experimental studies such as the Perry Preschool Project (Yipsilanti, MI) and the Abecedarian Project at the FPG Child Development Institute (FPG) at The University of North Carolina at Chapel Hill (UNC-Chapel Hill).

These studies show that high-quality early educational experiences help children from low-income families be more successful in school and in life, compared to similar children who had not attended the education program.

The real question today is whether early educational programs provided as part of states' pre-K initiatives are as good as those in the landmark studies of early intervention. Two kinds of indicators are usually used by researchers to measure the quality of an early childhood educational program. One type is called "structural quality"—the characteristics of pre-K that can be regulated, such

as level of teacher education and experience, number of children per class, and teacher to child ratio.

The other way of looking at the quality of a program involves observing classrooms and rating the kinds of learning activities in the classroom, as well as the nature of the teacher-child interactions and children's interactions with each other. Researchers call this "process quality."

The NCEDL Multi-State Study of Pre-K collected information about both types of quality indicators. Researchers examined a representative group of classrooms and teachers in the six states in the study.

Overall, teachers were well qualified and relatively well paid compared to early childhood teachers in other settings. The group of teachers was quite similar to the U.S. population in terms of race and ethnicity, but was much less diverse than the population of children and families served in the programs.

In spite of fears that teachers would be either very young or would be more experienced teachers who had worked primarily with older children, the population of teachers in these states for the most part had the appropriate qualifications and experiences for working with young children.

Pre-K classrooms in these states were almost equally split between being located in a public school (47%) or in some other setting, such as a child care center (53%).

A Quick Look at Pre-K Teachers

The study sample of 240 lead teachers represented over 17,000 pre-K teachers in the six states.

- Age and gender: 42 years old, on average, and 98% female
- Ethnicity: 62% White, 17% African-American, 10% Latina, 3% Asian/Pacific Islander, 8% Other/Mixed
- Education: 16% no formal degree past high school, 15% two-year degree, 39% BA degree, 30% MA degree or more
- Credentials: 23% had a Child Development Associate credential (CDA), 51% had a BA and state certification to teach four-year-olds
- Language of the classroom: 100% spoke English, 27% spoke some Spanish too, 4% spoke some other language
- Salary: $19.23 per hour on average (range: $5.21–$58.25), 19% earned less than $10 per hour.
- Hours worked: 37 hours per week on average and 10.6 months per year

Teacher Education and Classrooms

There is a push in early childhood education to require teachers of young children to have college degrees. This has come about mainly because earlier studies showed an association between higher levels of teacher education and greater classroom quality.

It is certainly the case that in the six states in which the study was conducted, high proportions of teachers have a BA degree or more. However, teacher education levels differed by setting, teacher ethnicity, and classroom poverty levels.

In public school settings, about 81% of pre-K teachers had a Bachelor's degree or higher and only 8% reported no post-secondary degree. This compares to 57% of teachers in non-public school settings with a BA or higher and 24% with no post-secondary degree.

African American and Latina teachers were somewhat less likely to have a BA degree than white teachers. In addition, classrooms where the teacher did not have a Bachelor's degree tended to have a higher proportion of children from low-income backgrounds than classrooms where the teacher had a Bachelor's degree.

Dr. Oscar Barbarin, one of the study's principal researchers at UNC-Chapel Hill, said, "In essence, the children who are most in need of high quality early childhood experiences are being taught by the less qualified teachers. Although this is true for all levels of public education, it is particularly distressing to find this in pre-K programs that are specifically designed for at-risk children. It is certainly possible that the differences noted here may contribute to the persistent gaps in achievement that are evident as children enter kindergarten."

A Closer Look at Salaries

The average salary received by teachers in this population (about $19 per hour) is higher than has been reported in studies of child care teachers (somewhat over $8 per hour) or Head Start teachers (about $16 per hour). This is likely due to the higher education levels of these pre-K teachers compared to child care or Head Start teachers.

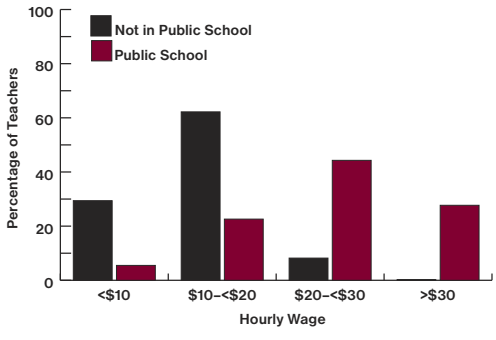
The study found salary differences for teachers who taught in public schools versus those who taught in classes located outside of public schools, on average $27 per hour

compared to $13 per hour. A high percentage of pre-K teachers in public schools earn more than $20 per hour, as shown in the adjacent graph.

A Bachelor's degree or higher is more common in pre-K programs located in schools and salaries are possibly influenced by the culture or pay scales of the school systems.

The pre-K teachers in the six states in this study earn salaries that are well above what child care teachers make and approach salaries of public school teachers.

Pre-K Teacher Salaries



Race/Ethnicity

The population of pre-K teachers is relatively representative of the population of the U.S. in terms of race and ethnicity but is not nearly as diverse as the population of children in the programs. The population of pre-K teachers across the six states in this study is comparable to the U.S. population with only slightly more African American teachers and slightly fewer Latina teachers.

The race/ethnicity composition of pre-K students is quite different from teachers; 44% of pre-K children are African American or Latino and only 27% of pre-K teachers are African American or Latina.

Dr. Richard Clifford, co-director of NCEDL, said, "It appears clear that as programs seek to increase the academic requirements of teachers—moving to the BA as the expected standard—they are having a difficult time maintaining a teaching staff that is reflective of the diversity of the child population being served."

Other Structural Features

Although these pre-K programs generally met the standards for structural quality features of early childhood programs proposed by the National Association for the Education of Young Children (NAEYC), they varied considerably in teacher and program attributes.

Teacher-child ratios were on average1:8 with an average class size of 18. This is within NAEYC accreditation standards of a 1:10 adult to child ratio and maximum class size of 20 for 3- and 4-year-olds classrooms. In fact, all classrooms in the study met the 1:10 ratio and 86% were at or lower than the maximum class size recommendation of 20 children.

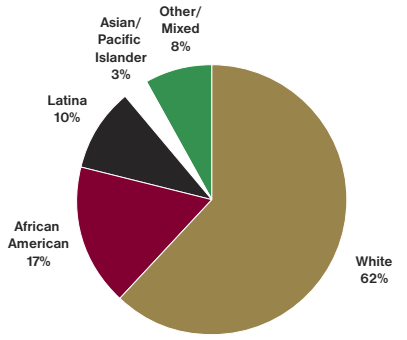
NAEYC also recommends that early childhood teachers hold at least a CDA and preferably a Bachelor's degree or higher in an early childhood related in topic. The findings from this study suggest that a Bachelor's degree or higher is becoming the norm for teachers in state-funded pre-K programs with more than 68% of teachers holding at least a Bachelor's degree, substantially more than in child care or Head Start.

According to program administrators, at least 80% of programs provided services for children with special needs, conducted developmental assessments of children, and provided meals for children. Between 50–79% of programs offered parenting education or family literacy programs, transportation, and health care or social services, sometimes offered collaboratively with other agencies. Less than half of the programs provided on-site family case workers, before or after school care, or extended year (summer and holiday) care.

Length of Day

Offering a part-day pre-K program rather than a full school day (about six hours) often represents a strategic decision related to the number of children who can be served and/or the cost of the program. "These tradeoffs raise questions about how much is minimally needed to benefit children," said Dr. Margaret Burchinal, an NCEDL researcher at UNC-Chapel Hill.

Teacher Race/Ethnicity



Roughly half (51%) of pre-K programs across these states are part-time (15 or fewer hours per week). The average across all programs is to operate four or five days per week for an average of 5 hours per day.

Burchinal said, "There is some evidence from other research that full-day kindergarten programs are more effective than part-day

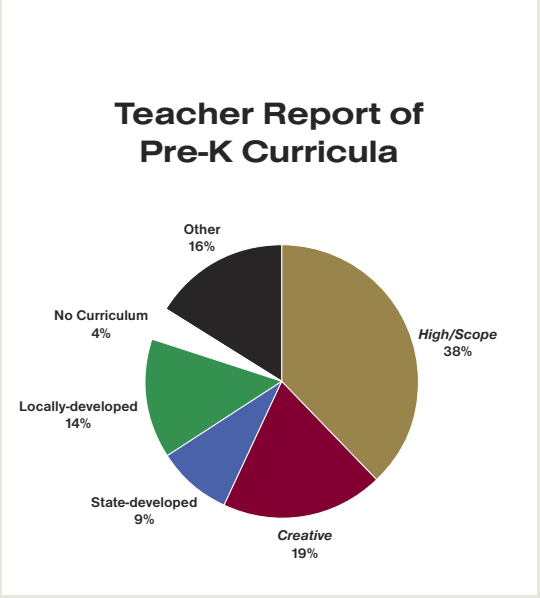
programs for children. This might indicate that optimal pre-K programs would operate on a full-day schedule as well.

"In addition, part-day programs may complicate the lives of children and their working parents. When parents work outside of the home, they need to augment part-day pre-K programs with other sources of child care if they are not provided through the program."

Most program administrators in this study (60%) reported that there were no after school or extended care options. "In addition to the inconvenience for parents, it is possible that moving from program to program during the day may have negative consequences for the children themselves," Burchinal said.

Part-day and full-day classrooms differed in the population of children and families they served. Full-day classrooms had a higher proportion of children from low-income backgrounds and a higher proportion of African American children as compared with part-day classrooms. Part-day classes had a higher proportion of Latino children.

The majority of teachers reported either *High/Scope* (38%) or *Creative Curriculum* (19%) as their curriculum, indicating that they had some overall guiding principles for their program. Only 4% reported having no curriculum.



Classroom Quality

Several other studies in the early childhood field have shown that good program standards (for example, low teacher-child ratios, high levels of teacher education) are associated with higher levels of classroom quality.

However, NCEDL researchers were surprised that in this six-state pre-K sample, the observed classroom quality, based on the fall data collection, was lower than would be anticipated, given the relatively high program standards (i.e., ratio, class size, teacher education) found in the study. (See page 20 for a description of how classroom quality was measured.)

The average score of 3.86 on the *Early Childhood Environment Rating Scale-Revised* (ECERS-R) was lower than what has been found in other large-scale studies of early childhood programs.

Two large-scale studies of early childhood programs, the Cost, Quality, and Outcomes (CQO) study of child care and the FACES study of Head Start classrooms, found slightly higher ECERS-R scores in their samples. Dick Clifford, co-director of NCEDL and an author of the ECERS, noted that two reasons may underlie the difference between these two studies and the NCEDL study of pre-K.

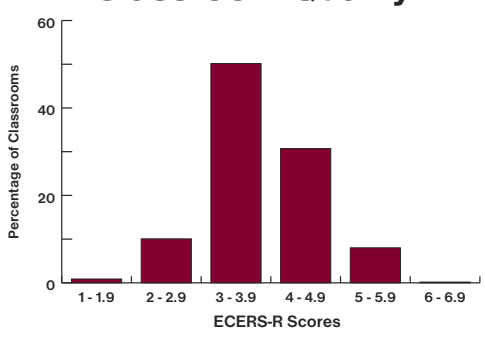
First, unlike the CQO or FACES study, "the NCEDL study used the revised ECERS, which includes specific items about diversity, math, and science, all of which may tend to lower overall scores," Clifford said.

The second reason Clifford mentioned is that this study included a large number of part-day programs, in which "routine activities (arrival/departure, snacks/meals) can quickly absorb a great deal of the time, leaving less time for activities in learning centers or small-group teaching activities." He said that these were the kinds of activities that researchers think most help children advance in language, literacy, and math.

On the second measure of classroom quality used by the study, the *Classroom Assessment Scoring System* (CLASS), the scores were also lower than expected, especially for Instructional Climate. On a 7-point scale, the average Instructional Climate was 2.47 and the average Emotional Climate score was 5.22.

Dr. Robert Pianta, an NCEDL researcher at the University of Virginia and the co-author of the CLASS, said "the low Instructional Climate scores indicate that pre-K teachers do not typically engage in focused instruction that uses a variety of methods to engage children, nor do they have many extended discussions that encourage children to hypothesize, predict, and problem solve.

"In fact the findings suggest that superficial task demands, including giving directions and assigning routine tasks, predominate over children's involvement in appropriate conceptual or skill-based activities."



Summary of Classroom Quality Findings

- Class size and teacher: child ratios in pre-K classes met or exceeded recommended standards.
- Pre-K teachers were, on average, better educated and paid than other early childhood educators, although salaries in non-school settings still lag somewhat behind those of public school teachers.
- Classroom quality as observed was lower than would be predicted given the high level of structural quality in these pre-K programs.

Global quality, as measured by both the ECERS-R and the CLASS, was generally lower when the classroom was composed of mostly poor children, teachers did not have Bachelor's level training in early childhood, and teachers expressed more traditional beliefs about children and learning. Location of the program in a school building, child-staff ratio, and length of day had no relation to quality.

Pianta added, "These findings demonstrate once again that we are not meeting the needs of our poorest children. Children from low income families are at the greatest risk for future academic problems and therefore stand the most to gain from pre-K. Unfortunately, they are also in the lower quality pre-K rooms." **|ed|**

TO LEARN MORE

If you want to know more about the ECERS, go to
www.fpg.unc.edu/products/product_detail.cfm?apubsID=507

Copies of the ECERS can be ordered at
www.Kaplanco.com
www.teacherscollegepress.com

An article by Pianta, "Standardized Classroom Observations from Pre-K to Third Grade: A Mechanism for Improving Quality Classroom Experiences During the P-3 Years," can be found at
www.ffcd.org/news/publications.html

If you want to know more about the CLASS, see LaParo, K. M., Pianta, R. C., & Stulhman, M. (2004). The Classroom Assessment Scoring System: Findings from the pre-k year. *The Elementary School Journal, 104*(5), 409–426.

Upcoming Analyses Examine Teacher, Classroom & Outcomes Relationships

Dr. Richard Clifford, co-director of NCEDL, said, "We believe that over the next ten years, public investment in the education of young children will continue to increase, particularly for children at risk for academic problems in the early school years.

"Eventually, public school will begin for most children at age three or four. Pre-K, in many ways, is at a crossroads–caught between child care programs, Head Start, and schools. We can speculate that some of the variability across programs may stem from some programs using a school-based (K-3) model wherein teacher-initiated activities take precedence and other programs using a modified child care model wherein a child-centered approach is more common."

How these different models of pre-K affect children's development and transition into kindergarten will be explored by NCEDL researchers in subsequent reports using these data.

Clifford said that key challenges for national and state policymakers and local practitioners include:

1) whether to provide pre-K programs,
2) to whom such programs should be available,
3) how the services should be financed,
4) what the goals of these programs are, and
5) what models and practices should be used.

NCEDL researchers will use these data to answer questions about the links between child outcomes and key variables such as teacher education, curriculum, and family involvement. They will also consider the degree to which quality predicts child outcomes in pre-K and kindergarten. ■

How is Quality Measured?

Early childhood researchers often talk about classroom quality, but how is quality measured? The field has several good instruments for measuring classroom quality.

Past research indicates that children tend to do better on later tests of academic skills when they have been in better quality classrooms, as measured by these instruments. This seems to be true for children from all different incomes and backgrounds.

NCEDL's Multi-State Study of Pre-Kindergarten used two observational measures of quality: *The Early Childhood Environment Rating Scale-Revised Edition* (ECERS-R) and the *Classroom Assessment Scoring System* (CLASS). Each looks at a different aspect of a classroom's quality and tells us something different about children's pre-K experiences.

All quality ratings were made by observers who had been trained intensively on these measures. Before visiting study-classrooms, the observers spent many hours with experts on the measures, to make sure all observers rate the classrooms in the same way as the experts and as one another. Then, observers were tested to make sure they used the measures correctly.

The ECERS-R is a widely used measure of classroom quality with established reliability and validity. To complete this measure, a well-trained observer spent several hours (the entire class for part-day rooms and from the start of class until nap in full-day rooms) observing the classroom on a typical day, once in the fall and once in the spring.

The observer watched everything from how well children wash their hands to what type of language interactions the teachers had with the children. The observers inspected the classroom materials closely, noting the variety, organization, and availability of materials such as books, fine motor toys, blocks, science and math materials, and dramatic play props.

Observers took extensive notes and answered hundreds of yes/no questions. The pattern of responses to the yes/no questions were used to score 37 different aspects of quality. Classrooms receive a score from 1 to 7 on each aspect, with 1 indicating "inadequate" quality, 3 indicating "minimal" quality, 5 indicating "good" quality, and 7 indicating "excellent" quality.

From those 37 aspects of quality, two global ECERS-R scores were calculated. One is called "Provisions for Learning" and it is the average of the items related to the physical surroundings and materials. To score well on this part of the ECERS-R, the classroom must have a wide variety of high-quality materials, those materials must be available to children for much of the day, and the physical surroundings must be safe and well organized for learning.

The other ECERS-R score is called "Teaching and Interactions." To score well on this part, teachers must engage children in high-quality conversations, children must be well supervised, and children and teachers must appear to be happy and productive.

The CLASS is a second measure of classroom quality, also linked to children's outcomes. Unlike the ECERS-R, it does not assess physical or structural features of the classroom but instead focuses on the emotional and instructional climate and teacher-child interactions. To complete this measure, observers spent two days in the fall and two days in the spring in each classroom.

Again, the observers stayed in the classroom for the entire class if it was a part-day room and from the beginning of class until nap if it was a full-day room. They observed all activities and interactions in the classroom and then rated the classroom on

nine dimensions of quality, using 7-point scales, every half hour. Each of nine dimensions is rated from 1–7 with 1 or 2 indicating the classroom is low on that dimension, and 3, 4, or 5 indicating that the classroom is in the mid-range, and a 6 or 7 indicating the classroom is high on that dimension.

An example of the dimensions is "positive climate" where observers look for qualities like enthusiasm, enjoyment, and respect displayed between the teacher and children and among children. Observers also rate the extent to which there is "over-control" in the classroom, reflecting the extent to which classroom activities are rigidly structured or regimented.

Also, they rate "productivity" which reflects how well the teacher manages instructional time and routines so that children learn and make progress and "concept development" which reflects the strategies teachers use to promote children's higher order thinking skills and creativity through problem-solving, integration, and instructional discussions.

From these ratings, two CLASS scores are created. The score called "Emotional Climate" indicates how positive, sensitive, and responsive the classroom is. The score called "Instructional Climate" indicates how well time, materials, and teacher-child interactions are managed to optimize children's learning.

Using these two measures, the ECERS-R and the CLASS, NCEDL researchers are able to provide an accurate, detailed, and meaningful picture of pre-K classroom quality. ■

How Is the Pre-K Day Spent?

FINDINGS FROM NCEDL'S MULTI-STATE STUDY OF PRE-K indicate that classroom quality in these six state-funded pre-K programs was lower than other research has indicated is best for children, especially with regard to instruction.

In order to better understand what happens in these classrooms, the researchers looked at minute-by-minute information on the children's activities and interactions. They concluded that much of the children's time is spent with no learning activity going on and that children's interactions with teachers were few. When interactions did occur, they were not at a level that would help the children gain more complex understandings of language and math concepts.

How the Information Was Collected

To learn about the pre-K day, trained observers from the Multi-State Study of Pre-K spent two days in each classroom using the SNAPSHOT measure. The observer watched a study child for 20 seconds then spent 40 seconds indicating on a code sheet everything that child did and any interaction the child had with a teacher, assistant teacher, or other adult in the classroom. The observer would then move on to the second, third, and fourth child in the study.

Once the observer completed one observation of each child, the process would begin again. This continued throughout the day in part-day rooms, or until nap in full-day rooms, with occasional breaks to record data on other measures.

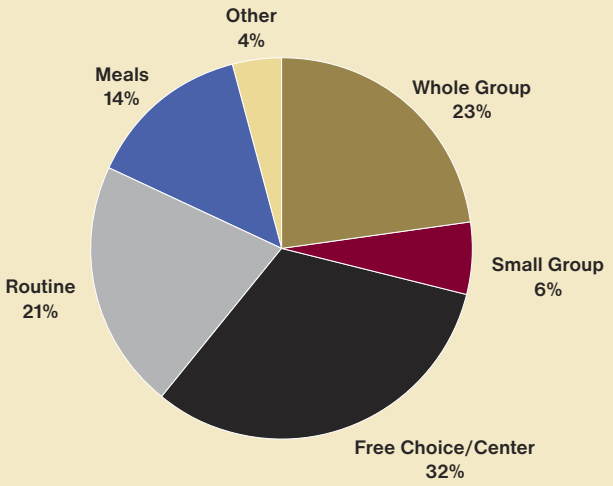
These tallies could then be totaled for each child, indicating what the main intended activities were, the types of content areas in which the child was engaged (or not), and the frequency of teacher-child interactions. (More detail about the specific category codes is available from the SNAPSHOT authors.)

How Classroom Time Was Used

Activity Setting

Routines (like standing in line, cleaning-up, and washing hands) and eating meals or snacks accounted for about one-third of the observed time. Children spent another third of their time in free choice and about a quarter of their time in whole-group activity. They spent very little time in small groups assigned by their teacher.

How Pre-K Children Spend Their Time



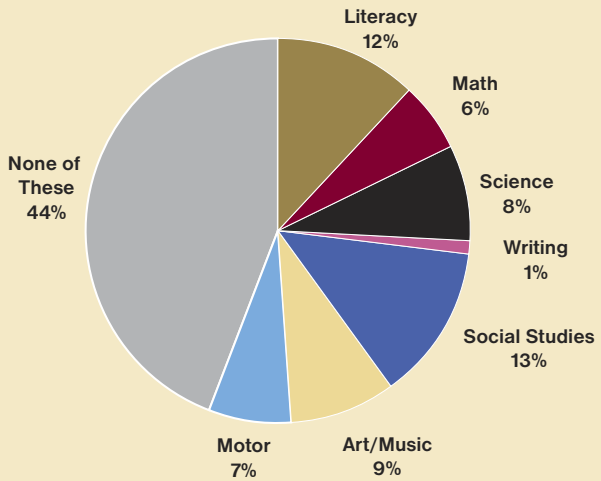
Child Engagement

Observers kept track of how much time children were engaged in various types of activities: pre-reading, being read to, letter-sound activities, oral language development, math, science, writing, social studies, arts and gross and fine motor.

Of the activities coded, children were most likely to be engaged in social studies (which included dramatic play and blocks) and emergent literacy activities (3% of time in letter/sound activities, 4% in oral language activities, 3% being read to, and 2% engaged in pre-reading). All these literacy activities together only added up to about one-eighth of the observation times.

Additionally, children spent 6% of their time in math activities, 8% in science, and 9% in art/music. However, the children spent 44% of their time not involved in any of the coded activities. For the most part, that 44% is the same time as the meals/snack and routine mentioned above.

Child Engagement



Teacher-Child Interaction

Children were involved with a teacher or other adult in less than one-third of the observations. This code for interaction involved various levels, with higher levels indicating more enhanced, higher-level verbal exchanges. When teachers and children *were* interacting, "minimal" interaction was coded twice as often as elaborated interactions.

Teacher-child interactions were infrequent during free play or routines. Elaborated interactions were most likely in whole-group activity. The average child engaged in elaborated interactions with the teacher only 8% of the intervals and more than one-third of those were during whole group time.

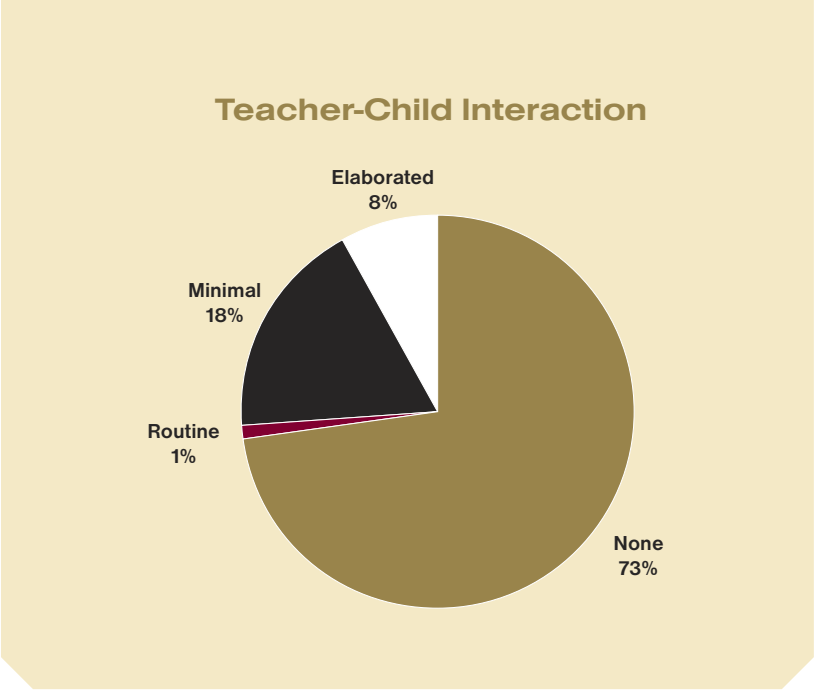
Elaborated interactions during small group or free play, which are typically good opportunities for one-on-one exchanges, occurred on average less than 3% of the time. Minimal adult-child interaction also occurred most often in whole-group activity settings.

Patterns of Interaction

Because the observers coded six activity settings, 11 child engagement categories, and four levels of teacher-child interaction, there were, in theory, hundreds of different possible combinations that could have been coded in any one interval per child. The most frequent pattern of interaction (15% of the time) was routine activity setting, no teacher-child interaction and no child engagement. The next most common (10%) was meals/snack, no teacher-child interaction, and no child engagement.

So, children spent the largest part of their day in routine, maintenance activities (like standing in line) and eating. Unfortunately, during that time, they were not also engaged in some learning activity like oral language development or hearing a story and

were not talking with adults. Dr. Sharon Ritchie, an NCEDL researcher at the University of California at Los Angeles (UCLA), said, "Of course, eating and hand washing are critical activities. We just wish that meals and other routine times were opportunities for conversations between adults and children or time for singing or playing number games."



Unfortunately, children were most likely to engage in pre-reading and letter-sound activities with no or only minimal teacher-child interaction. Even while adults are reading to children, the level of teacher-child interaction was most often minimal.

From other studies, researchers know that hearing stories and working on early reading skills have the most value for young children when adults are very involved in these activities, helping children understand and having conversations that encourage more and more advanced thinking.

Children in the pre-K classrooms in this study had relatively few experiences linked to helping children learn pre-academic material—working with a teacher who helped them move from less to more complex understandings of literacy and math concepts. On average these experiences added together occurred about 3% of the time and less than half of the children experienced them at all.

If we consider that each teacher needed to divide her attention among seven or eight children, each child could possibly have 10% of her time, still leaving the teacher with 20% to 30% of her time to address routine classroom needs.

The small proportion of time in which children do interact with the teacher is in stark contrast to the growing research that suggests that learning is most apt to occur when children engage in pre-academic material with an adult who involves them in responsive, elaborated interaction.

What Were They Doing?

So what were children doing instead? They were spending relatively large amounts of time waiting and relatively large amounts of time with little contact with an adult.

Children were in circle time or some other whole group activity for over 30 minutes, on average, in part-day programs and over 75 minutes, on average, in full-day programs. Most often, during these times teachers gave verbal directives, asked simple questions, or answered questions without expanding or elaborating on the child's response.

While all children engaged in some pre-academic activities for some time—working on letter-sound correspondence, building oral language skills by conversing with an adult, being read to, or working on math skills and concepts—the

NCEDL begins study of State Wide Early Education Programs (SWEEP)

NCEDL is conducting a second multi-state study of state-funded early education programs sponsored by the Pew Charitable Trusts' National Institute for Early Education Research (NIEER) and the Foundation for Child Development (FCD).

Information from the Multi-State Study of Pre-K and the SWEEP Study will be combined to create a more detailed and complete picture of American pre-K.

A collaborative team of researchers from The University of North Carolina at Chapel Hill, the University of California at Los Angeles, the University of Virginia, and NIEER are expanding the work of the Multi-State Study of Pre-K into five additional states to more fully address these research questions:

- What happens in pre-K programs?
- What does pre-K look like across a number of states and different types of programs?
- What do children learn in their pre-K year and does it help in kindergarten?
- How do state-level policy decisions relate to classroom practice, classroom quality, and child outcomes?

SWEEP Participants

Over 450 pre-K schools/centers in Massachusetts, New Jersey, Texas, Washington and Wisconsin have been selected at random to take part in the study. These five states were selected because they have well developed programs that represent different models of pre-K services. In each program, one classroom was selected at random to participate.

Data Collection

SWEEP collected data very similar to NCEDL's Multi-State Study of Pre-K. Researchers visited one randomly selected pre-K classroom at each school or center in the fall and in the spring of the 2003-2004 school year to collect information on children's experiences. Classroom observations included the ECERS-R, the CLASS, and the Emerging Academics SNAPSHOT.

In the fall and spring, one-on-one assessments were administered to four children selected at random from the participating classroom. The assessment battery was almost identical to the one used in NCEDL's Multi-State Study of Pre-Kindergarten and assessed children's literacy, language, and mathematics skills. Teachers, principals/directors, and parents completed questionnaires.

In the 2004–2005 school year, when most of the study children are in kindergarten, each participating child's current teacher will be asked to complete questionnaires about the child's academic and social progress.

Dr. Diane Early, an NCEDL researcher at UNC-Chapel Hill, said, "The SWEEP Study, in conjunction with NCEDL's Multi-State Study of Pre-K, has the potential to greatly expand our understanding of pre-K programs. With 11 states in all, we will have data on programs serving 80% of all children in pre-K in the United States and will be able to consider various state-level policies and how they relate to children's experiences and outcomes. These combined data provide exciting opportunities to answer pressing policy questions." ■

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NCEDL
www.fpg.unc.edu/~ncedl

NIEER
http://nieer.org

Foundation for Child Development
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amount of time spent in these activities was relatively small when compared to more routine activities like waiting in line or eating.

Engagement in pre-academic activities was also small in real time. For example, in a 2.5-hour/day program, if 13% of the time was spent in literacy activities of all kinds, this would equal less than 20 minutes. In a full-day program, 13% would translate to about half an hour of literacy activities.

Why Aren't Experiences Optimal?

"Early childhood has traditionally been a field where teachers have less education than elementary teachers, certainly less pay, and often little supervision. They may never have received professional development training that emphasizes teacher practices that move children from activities such as rote counting, recitation and copying to activities such as predicting or determining multiple solutions to social and cognitive problems," said Dr. Carollee Howes, NCEDL principal investigator at UCLA.

An alternative explanation, she said, is that "teachers may be confused about what is expected now that their programs are 'real school'."

Future research in this area should examine pathways to teaching in these programs, she said, and whether the more recent findings are making their way into professional development programs for early childhood teachers.

Some children in some programs did experience the kinds of teacher-child interactions around pre-literacy and pre-mathematics that research suggests are associated with school readiness. Not surprisingly, given the emphasis on the importance of free choice in early childhood, children tended to experience these elaborated teacher interactions and pre-academic learning in free choice activity settings.

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

They are also conducting a second multi-state study of pre-K, collecting comparable data from five more states with state-funded pre-K (see sidebar on p. 26 on SWEEP study).

The programs in these 11 states serve 80% of children in pre-K in the United States. The combined data will be a rich source of information about quality and practices in pre-K classrooms and how they affect the school readiness skills of the children who attend them, Howes said. **|ed|**

TO LEARN MORE

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Improving Pre-K Quality

FINDINGS from NCEDL's Multi-State Study of Pre-K indicate that, overall, classroom quality and practices may not be sufficient to benefit children as much as they could.

"Researchers think that classroom quality must be improved if children are to arrive at kindergarten prepared to take advantage of all that school has to offer," said Dr. Bob Pianta of the University of Virginia (UVA).

Two new studies involving NCEDL investigators are underway to learn more about program improvement. Pianta and his colleagues at UVA have created a professional development program for pre-K teachers called MyTeachingPartner (MTP) that they say holds promise.

The MTP program is designed to raise instructional quality by focusing on teacher-child interactions, considered the major conduit for the transmission of knowledge, information and skill in the classroom. Research has shown that all types of school readiness skills are higher when children's interactions with adults are warm, supportive and sensitive, while also providing structure and instruction.

MTP teaches teachers to observe themselves, using the *Classroom Assessment Scoring System,* one of the instruments used to assess quality in the Multi-State Study of Pre-K. Teachers get feedback and support to be more deliberate and individualized in their instruction. They also receive activities for use in pre-K classrooms, evaluation results, regular newsletters and new web-links.

MTP teachers participate in weekly, live, Internet-mediated consultation focused on curriculum implementation too. Over the web, teachers send video of themselves implementing activities in the classroom and then MTP consultants provide feedback.

The materials, activities and consultations offered by MTP have been fully field-tested and piloted with early childhood educators. Pianta's team is now evaluating MTP in 250 pre-K classrooms in Virginia. Results are expected in 2006.

PFI Model Also Studied

Dr. Donna Bryant, co-director of NCEDL, and researchers in four other states, with funds from the Child Care Bureau are studying the Partnerships for Inclusion (PFI) model of classroom quality improvement that incorporates the use of the *Early Childhood Environment Rating Scale-Revised* (one of the instruments used to assess quality in Multi-State Study of Pre-K) to help the early childhood teacher or caregiver set goals for change.

Both the teacher and a consultant separately administer the ECERS-R and then jointly conduct a needs assessment, where the teacher identifies goals for herself and her class. Over 10 months, the consultant visits the classroom, providing information and ideas to support the desired changes.

The teacher and consultant periodically re-evaluate and set new goals, with a focus on selecting and implementing strategies that can foster children's growth and development. The consultant also promotes the teacher's ability to develop strategies for recognizing and meeting needs after the consultation ends.

Previous studies of the PFI model have shown significant improvements in the quality of center-based child care and family child care home environments and activities. The study is also attempting to document changes in children's outcomes as a result of participation in this professional development model.

A first cohort of child care teachers (including some pre-K teachers) and family child care providers in California, Iowa, Nebraska, Minnesota and North Carolina have been randomly assigned to PFI consultation or to a comparison group. After another cohort in 2005–06, results from this study will be available in 2007.

Bryant said that NCEDL researchers hope that professional development such as MyTeachingPartner and the PFI model will help classroom-based programs meet the challenge of providing high-quality classroom experiences to all young children. ■

TO LEARN MORE

MyTeachingPartner
www.myteachingpartner.net

www.ffcd.org/news/publications.html

QUINCE Project
www.fpg.unc.edu/~quince

PFI Project
www.fpg.unc.edu/~pfi

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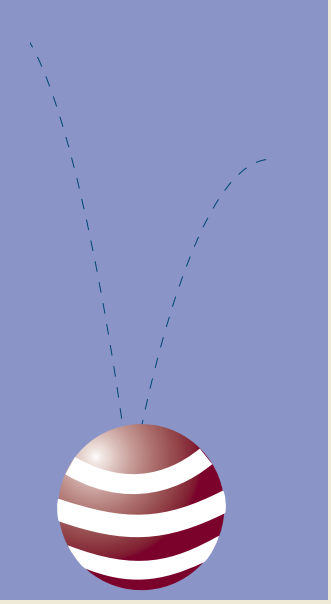

ncedl publications

Here is a partial listing of major publications by NCEDL researchers over the years. Additional listings may be found at **www.fpg.unc.edu/~ncedl/pages/products.cfm#tech** Many of our products are available online.

Note: Books are **not** available through NCEDL, unless otherwise noted. They may be purchased through the publisher and at book retailers such as Barnes & Noble and Amazon.com.

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