Purpose of the NC Pre-Kindergarten Evaluation Study

The purpose of the 2012–2013 NC Pre-Kindergarten (NC Pre-K) Evaluation study was to examine the quality of the program and the outcomes for children, along with comparisons to previous years. The primary research questions addressed by this evaluation included: 1) What were the key characteristics of the local NC Pre-K programs? 2) What was the quality of the NC Pre-K classrooms attended by children and what factors were associated with better quality? 3) What were the outcomes of children attending the NC Pre-K Program and what factors were associated with better outcomes?, and 4) To what extent have there been any changes over time in these results?

To address these questions, information was gathered from multiple sources. Program characteristics were examined for all sites, classrooms, and children in the program using service report data from the statewide databases. Researchers gathered teacher surveys and classroom quality data in a random sample of 99 NC Pre-K classrooms, including observational measures of global classroom quality, teacher-child instructional interactions, language and literacy environment, and sensitivity of teacher-child interactions. Within these classrooms, researchers gathered individual child assessments at the beginning (fall) and end (spring) of the pre-k year for a sample of 561 children to examine changes in language, literacy, math, general knowledge, and behavior skills. For the 117 Spanish-speaking dual language learners (DLL subsample), skills were measured in both English and Spanish using parallel measures.

Overview of the North Carolina Pre-Kindergarten Program

The NC Pre-K Program is a state-funded educational program for eligible 4-year-olds, designed to enhance their school readiness skills. Since its inception in the 2001–2002 school year, the statewide pre-k program has served over 255,000 children. Children are eligible for NC Pre-K primarily based on age and family income (up to 75% of state median income), although children with higher family incomes may be enrolled who have other risk factors (limited English proficiency, identified disability, chronic health condition, or developmental/educational need) or a parent actively serving in the military. NC Pre-K provides funding for serving eligible children in classroom-based educational programs on a school day (6 1/2 hours/day) and school calendar basis (180 days/year). Local sites are expected to meet a variety of program standards including curriculum and assessment; training and education levels for teachers; class size and adult:child ratios; and North Carolina child care licensing levels. Monthly payment rates per child vary by the type of classroom and teacher qualifications, with an estimated annual cost per child of $5,000.

Results

Program Characteristics

- Many of the characteristics of the NC Pre-K Program in 2012–2013 were consistent with good quality standards as well as program guidelines, including an average class size of 16 children and most classrooms at the highest licensing levels (four- and five-star).

- Most program characteristics have been fairly stable over time. In 2012–2013, the NC Pre-K Program served over 32,000 children in 2,150 classrooms located in more than 1,200 sites. Similarly to previous years, the program was offered in a variety of setting types (public schools, private sites, Head Start) and continued to serve children with different eligibility factors, with the vast majority from low-income families.
One continuing trend in NC Pre-K has been a steady improvement in teacher education and credential levels, with a higher proportion with BA degrees and B-K licenses in 2012–2013 compared to past years.

CLASSROOM QUALITY

The quality of NC Pre-K classrooms in the 2012–2013 sample was in the medium to good range across different aspects of classroom practices: global quality (ECERS-R), teacher-child instructional interactions (CLASS Emotional Support and Classroom Organization), language and literacy practices (ELLCO General Classroom Environment and Language and Literacy), and sensitivity of teacher-child interactions (CIS Total). Scores were in the low range for one area (CLASS Instructional Support).

In general, the quality of the NC Pre-K Program has remained relatively stable over time across many aspects, including global quality, teacher-child instructional interactions (emotional support and classroom organization), and general classroom environment. Compared to more recent cohorts, there were decreases in instructional support and language and literacy practices, and increases in sensitivity of teacher-child interactions.

Lower class size and a higher proportion of NC Pre-K children in the classroom were associated with higher quality for some measures. There were no consistent patterns found for other predictors: teacher B-K licensure and education, characteristics of NC Pre-K children in the classroom, or beliefs about teaching practices and work climate.

CHILD OUTCOMES

Children exhibited significant growth during NC Pre-K across all domains of learning: language and literacy skills (receptive vocabulary, expressive vocabulary, letter-word identification, phonological awareness), math skills (math problem-solving, counting), general knowledge (basic self-knowledge), and behavior skills (social skills). Most of these were standardized measures, so that changes indicated that children progressed at an even greater rate during their participation in NC Pre-K than expected for normal developmental growth. This pattern of growth has been consistent over time, based on comparisons with three previous cohorts of children who attended the pre-k program.

Children with lower levels of English proficiency made greater gains than their peers for some skills and made similar gains in others. These findings suggest that while participation in NC Pre-K is beneficial for all children, it may be especially beneficial for these children in some areas.

There were no strong associations between classroom quality and children’s growth in language and literacy skills, math skills, and general knowledge during the NC Pre-K Program. However, there was a relatively restricted range of quality in NC Pre-K, with few classrooms scoring in the low range on the quality measures, which may have prevented the detection of such associations.

Similarly to the full sample, children in the DLL subsample exhibited significant growth for all skills measured in English during pre-k and for most skills measured in Spanish. There were no differences by level of language proficiency, both for skills measured in English and in Spanish. DLLs in classrooms with better quality language and literacy environments made greater gains in language and literacy skills in English during NC Pre-K; in contrast, there were no clear patterns for other skills measured in English or for skills measured in Spanish.