Twice as many children who attend full-day Pre-K enter kindergarten at the proper academic level, compared with peers without preschool experience.

These findings emerge from a 2003 study of prekindergarten effects on school readiness by Donna J. DeSiatos, Ed.D., assistant superintendent for the Syracuse City School District’s Office of Curriculum and Instructional Services.

Her report, “Does Prekindergarten Experience Influence Children’s Subsequent Educational Development? A Study of Kindergarten Teachers’ Perceptions and Students’ Performances,” differs from previous research by including public full-day prekindergarten in the mix. Most studies compare only half-day graduates to those with no Pre-K experience, while DeSiatos’s work examines 346 children in all three categories.

Overall, DeSiatos—who conducted the research as part of work toward her doctorate in educational leadership at Syracuse University—found that children with half-day Pre-K experience performed better on assessment tests than those with no preschool. Furthermore, she found that children with full-day Pre-K experience outperformed both groups. She also found that teachers’ opinions of prekindergarten effects were consistent with student performance data.
Full-Day Pre-K Has Significant Effects on Child Development

To analyze student performance, DeSiato used data from the Syracuse City School District's Developmental Assessment. Since 1983, the district has given this test to kindergarteners in the fall and spring to assess language and cognitive development. It evaluates each child's instructional level as "prekindergarten," "kindergarten" or "first grade." To move from one level to the next, a child must display 85% competency.

DeSiato found that less than half of students with no Pre-K experience entered kindergarten at that developmental level. For children with half- or full-day Pre-K backgrounds, the numbers were 60% and 80% respectively. About 5% of full-day prekindergartners entered kindergarten with first-grade skills.

DeSiato's study also used data from the Fox in a Box™ assessment, a nationally available literacy program the district began using in 2001. Like the developmental assessment, Fox in a Box follows a fall and spring schedule. Fox in a Box measures four areas of literacy: phonemic awareness, phonics, reading and oral expression, and listening and writing. Based on performance, Fox in a Box assigns an instructional level to each child: Level 1 (midyear kindergarten), Level 2 (end of year kindergarten), Level 3 (midyear first grade), Level 4 (end of year first grade), Level 5 (midyear second grade), and Level 6 (end of year second grade). Students need an 85% score to move from one level to the next.

While most of the children in the DeSiato study entered kindergarten at Fox in a Box Level 1, more children who attended full- or half-day prekindergarten entered at Level 2. Only those with Pre-K backgrounds entered at Level 3. Pre-K graduates also completed kindergarten with greater gains in literacy scores than their peers who had no preschool experience.

Although the differences among the three categories may seem small, children's first learning steps are among the most important, and they can have a lifetime effect. The research provides further evidence that schools should make prekindergarten available to all 4-year-olds, and expand existing half-day programs to full day. DeSiato contends that this can go a long way in closing learning gaps.
While most of the children in the study entered kindergarten at Fox in a Box Level 1, more children who attended full- or half-day prekindergarten entered at Level 2. Only those with Pre-K backgrounds entered at Level 3. Pre-K graduates also completed kindergarten with greater gains in literacy scores than their peers who had no preschool experience.

**Source:** Does Prekindergarten Experience Influence Children’s Subsequent Educational Development? A Study of Students’ Performances and Kindergarten Teachers’ Perceptions, DeSriato, 2003.
Developmental Assessment Results

The Full-Day Advantage

Twice as many graduates of full-day Pre-K programs enter school at the kindergarten level or above compared to children with no preschool experience. About 5% of full-day prekindergartners entered kindergarten with first-grade skills.