



**Education Commission
of the States**

The Progress of Education Reform 2004

Kindergarten

Vol 5, No. 4, September 2004

What's inside

- Full- versus half-day programs
- Early success
- State policy snapshot

Full-day Kindergarten Programs Improve Chances of Academic Success

Kindergarten today is a mainstay of the education system with about 98% of all children attending at least a half-day program. As policymakers seek to improve student achievement and close persistent gaps among children from different economic and racial backgrounds, much attention has focused on whether resources should be invested to help districts and schools expand programs to make full-day kindergarten more available.

Currently, about 60% of the nation's schoolchildren attend full-day kindergarten. Access is not always consistent, however, and only nine states require districts to offer full-day programs. Demand for full-day kindergarten appears to be growing because of various factors, including parents' belief that full-day programs will help their child better adjust and perform in school. In addition, a greater number of families – particularly single-parent households or those in which both parents work – need more access to quality educational opportunities for their young children during the day.

While much research has been conducted over the past 25 years on the effects of full- versus half-day kindergarten programs, definitive answers remain elusive. Recent research, however, including an extensive study tracking a national sample of children who began kindergarten in 1998, has helped shed light on the subject. This edition of *Progress of Education Reform* examines key findings of this new research.

In particular, experts now are in general agreement there are no detrimental effects to attending full-day kindergarten and, in fact, students in full-day programs show significantly stronger academic gains over the course of the kindergarten year than their half-day counterparts. The research also finds that poor and minority students especially can benefit from participation in full-day programs.

There is less agreement about the degree to which benefits gained from attending full-day kindergarten carry forward throughout a student's academic career. While further studies are needed to confirm the extent of this impact, the research outlined here establishes full-day kindergarten as a promising tool in the policy-maker's arsenal for improving schools and closing academic achievement gaps.



Full-day and Half-day Kindergarten in the United States: Findings from the Early Childhood Longitudinal Study, Kindergarten Class of 1998-99

(National Center for Education Statistics, June 2004,

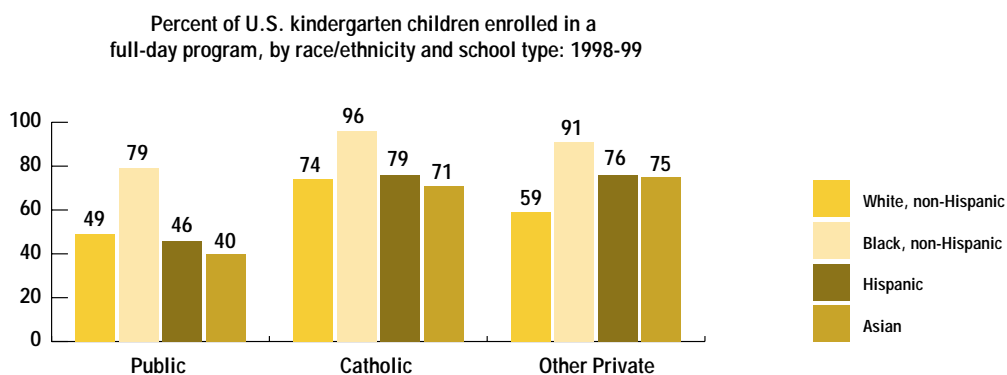
<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2004078>)

Based on an important longitudinal study tracking the progress of a nationally representative sample of children in the 1998-99 kindergarten class, this report finds that children in full-day kindergarten make more progress in both reading and math than those in half-day classes. The difference in progress was found to persist even after adjusting for a variety of key factors, including: race, ethnicity, sex, class size, amount of time for subject-area instruction and the presence of an instructional aide.

Data also show black children in full-day classes with an instructional aide had even greater achievement gains than those who did not have an aide. The presence of an aide did not have an effect on achievement gains for white students, however.

The report also provides extensive information on the schools – both public and private – that offer full- and half-day kindergarten programs and the children who attend these programs. And it compares many characteristics of public school full- and half-day kindergarten classes, including typical instructional activities and curricula. In the 1998-99 school year, key characteristics of full-day kindergarten programs included the following:

- In both public and private schools, black students were more likely to attend full-day kindergarten than students from any other major ethnic group. (See graph below).

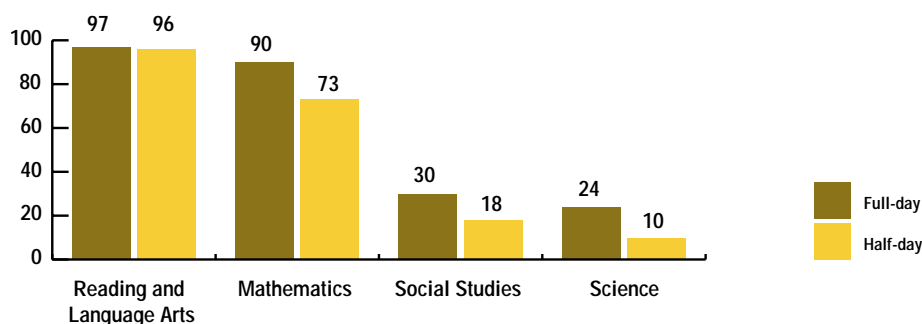


Source: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998-99; School Administrator Questionnaire, Kindergarten Teacher Questionnaire, and Parent Interviews, Base-Year Public-Use Data Files.

- Poor students (62%) attended full-day kindergarten more often than those from more affluent families (51%).
- A larger percentage of public schools in the South offered full-day kindergarten (84%) compared to public schools in other regions of the country (57% in the Midwest, 38% in the West and 37% in the Northeast).
- Full-day programs were more likely than half-day programs to devote time each day to math, social studies and science. (See graph on page three).
- Sixty-eight percent of full-day classes spent more than an hour per day on reading instruction compared to 37% of half-day classes.



Percent of U.S. public kindergarten classes that spend time each day on various academic subject areas, by program type: Spring 1999



Source: U.S. Department of Education, National Center for Education Statistics, Early Childhood Longitudinal Study, Kindergarten Class of 1998-99; Spring 1999 Kindergarten Teacher Questionnaire, Base-Year Public-Use Data File.

The Effects of Full-day Versus Half-day Kindergarten: Review and Analysis of National and Indiana Data

(Center for Evaluation and Education Policy, January 2004,
<http://www.doe.state.in.us/primetime/pdf/fulldaykreport.pdf>)

This study reviews national research on the impacts of full-day kindergarten and compares the national findings to information gleaned from site visits to individual Indiana schools and a group of seven studies of schoolchildren in districts throughout Indiana. The Indiana findings confirm what much of the national research says about the differences between full- and half-day programs.

In particular, the report reaches five key conclusions:

1. Both the Indiana and national data provide evidence that, relative to half-day programs, full-day kindergarten appears to have a **positive effect on both short- and long-term student achievement**. In fact, one longitudinal study conducted in an Indiana district showed significantly higher basic skills test scores in the 3rd, 5th and 7th grades for students who had attended full-day kindergarten.
2. Data generally support the effectiveness of full-day versus half-day programs in **reducing the number of children who are held back** a grade or referred to special education programs.
3. The positive development of student **social and behavioral skills** – including independence, peer interaction and originality – tends to favor full-day kindergarten programs.
4. Positive outcomes appear to be larger for **disadvantaged students** in both the national and Indiana research. The authors say full-day programs appear to be effective in **reducing achievement gaps** between students of different economic and racial groups.
5. There are **no negative outcomes** commonly associated with full-day kindergarten. National research also generally supports the conclusion that full-day kindergarten students adjust to longer days in school without any major difficulties.



Based on these findings, the report offers some recommendations to policymakers. For instance, the authors point out, regardless of how it is organized or funded, full-day kindergarten is expensive relative to half-day programs. Added costs include the need for more teachers, instructional aides and classroom space to accommodate a full-day schedule.

To help address this issue, the report recommends any state-funded full-day program should include an evaluation component that promotes the accountability of full-day programs while at the same time tracking any cost savings the program provides. In particular, the authors say the state program should evaluate the potentially significant cost savings related to reduced student grade retention, reduced need for remedial coursework and reduced special education referrals.

Early Success: Closing the Opportunity Gap for Our Youngest Learners
(Montgomery County [Maryland] Public Schools, July 2004,
http://www.mcps.k12.md.us/departments/superintendent/docs/early_success.pdf)

Early Success focuses on the efforts of the Montgomery County Public School district in Rockville, Maryland, to close the achievement gap among its youngest students. Beginning in 2000, the district implemented a plan to improve the quality of its early education programs. As part of this plan, children in the district's poorest schools were offered access to full-day kindergarten and reduced class sizes. In addition to increased instructional time, full-day kindergarten teachers were given a curriculum blueprint and instructional guides that helped them manage their extra time better.

The report's findings are based on an analysis of: (1) the performance over the past two years of approximately 20,000 district children on a national assessment of reading, language and math; and (2) a longitudinal study of 27,000 students as they passed from kindergarten into 1st and 2nd grade.

Perhaps the most important finding in the report is that full-day kindergarten can significantly help to close academic achievement gaps for both low-income and minority children. In some cases, such as reading, low-income students in full-day kindergarten were even shown to outperform students in half-day kindergarten from more affluent communities.

Other key findings include:

- African American students in full-day kindergarten significantly outperformed their African American peers in half-day kindergarten programs.
- By 2003, 60% of Hispanic students in full-day classes met an established reading skill benchmark, compared to only 48% of Hispanic students in half-day classes.
- By 2003, 56% of English language learners in full-day programs met the established reading skill benchmark compared to only 29% in 2001.
- The percentage of special education students in full-day kindergarten that met reading benchmarks more than doubled in three years.

Full-day Kindergarten: Exploring an Option for Extended Learning

(Northwest Regional Educational Laboratory, December 2002,

<http://www.nwrel.org/request/dec2002/kindergarten.pdf>)

This booklet offers a literature review on full-day kindergarten programs and highlights key issues for educators and policymakers to consider. Also included are several profiles of full-day programs operating in Northwest schools.

The authors agree research shows students in full-day programs progress further academically during the kindergarten year than students in half-day programs, and full-day kindergarten has longer-lasting academic benefits for poor children. They also agree there is no evidence of detrimental effects on children who attend full-day programs.

Drawing other definitive conclusions from existing research is difficult, the authors say, because kindergarten practices and student populations vary so much from school to school. In fact, there is currently not strong evidence showing that academic gains made in full-day programs last beyond 1st grade for all students.

The booklet says part of the difficulty with current research is that isolating the impacts of such variables as teaching methodology, teacher experience, quality of curriculum and parental involvement make it hard to draw direct correlations to student-performance changes based on a single factor, such as length of the school day. Another problem with current research is there are few studies in which students are assigned randomly to full- and half-day kindergarten programs. Findings could therefore be skewed in favor of full-day programs simply because the students most likely to choose these programs come from educationally advantaged homes.

For policymakers interested in implementing full-day kindergarten programs, the booklet recommends consulting first with parents, teachers and other community leaders. The authors say states that have been successful in passing legislation regarding full-day kindergarten have taken a variety of approaches, including providing funding for full-day programs but not requiring districts to offer it, targeting funding for full-day programs specifically for disadvantaged students and mandating that districts offer full-day programs students can voluntarily attend.



For additional information on full-day kindergarten, see the following Web sites:

Early Childhood Longitudinal Study Kindergarten Class of 1998-99 <http://nces.ed.gov/ecls/>

National All Day Kindergarten Network www.siue.edu/~snall/kdtn/

Clearinghouse on Early Education and Parenting <http://ceep.crc.uiuc.edu/poptopics/fullday.html>

Northwest Regional Educational Laboratory <http://www.nwrel.org/request/dec2002/intro.html>

ECS Resources on Full-day Kindergarten:

ECS Kindergarten Issue Site www.ecs.org/html/issue.asp?issueid=77

How States Fund Full-day Kindergarten shows how each state's funding formula addresses kindergarten.
<http://www.ecs.org/clearinghouse/52/30/5230.doc>

State Statutes Regarding Kindergarten includes information on each state's offering of full-day kindergarten, as well as policies for student attendance in kindergarten.
www.ecs.org/clearinghouse/49/99/4999.htm

ECS' 50-state Kindergarten Database allows users to review and compare access, quality and funding of kindergarten in the states. http://www.ecs.org/html/educationIssues/EarlyLearning/KDB_intro.asp

STATE POLICY SNAPSHOT – Funding for Full-day Kindergarten

Thirty-nine states and the District of Columbia fund both full- and half-day kindergarten at the same level.

Only nine states (Alaska, Georgia, Illinois, Massachusetts, Nebraska, New Mexico, New York, Pennsylvania and Wisconsin) provide more funding for full-day kindergarten than half-day programs.

(Source: *How States Fund Full-day Kindergarten*, Education Commission of the States, August 2004, www.ecs.org/clearinghouse/52/30/5230.doc.)

STATE POLICY SNAPSHOT – Is Full-day Kindergarten Required?

Nine states (Alabama, Arkansas, Georgia, Louisiana, Maryland, Mississippi, North Carolina, South Carolina and West Virginia) currently *require* districts to offer full-day kindergarten programs.

Forty-three states, the District of Columbia and the U.S. Virgin Islands require districts to offer at least a half-day of kindergarten.

Fifteen states, the District of Columbia and the U.S. Virgin Islands require children to attend kindergarten. Two states – West Virginia and Louisiana – require full-day attendance.

(Source: *State Statutes Regarding Kindergarten*, Education Commission of the States, June 2004, www.ecs.org/clearinghouse/49/99/4999.htm.)

Full-day Kindergarten Enrollment Statistics:

Sixty percent of all kindergarten students in the United States attend full-day programs.

Fifty-nine percent of children who attend public school kindergarten are enrolled in full-day programs.

Sixty-five percent of children in private kindergartens are enrolled in full-day programs.

(Source: *School Enrollment – Social and Economic Characteristics of Students*, U.S. Census Bureau, October 2000).

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This publication is made possible in part through a grant from the GE Foundation. The report was written by Dale DeCesare, ECS writer/editor.

