

# Report of Findings on the Topic: Full-Day Kindergarten California Kindergarten Association

The California Kindergarten Association Research Committee reviewed the literature on the topic of Full-Day Kindergarten covering the publication period 1980 to the present. Combined with information from the 1994 Fact Sheet on All-Day Kindergarten published by the California Kindergarten Association, this paper continues to report the findings of researchers and educators throughout the United States. The literature consisted of comparative research studies, evaluation studies of programs, theoretical articles, and previous reviews on this subject. This Fact Sheet is designed to present the existing evidence, including objective research on this topic. We present the facts about full-day kindergarten in the form of summaries of this literature.

## Research Studies

### Comparative Studies

The project staff of the School District of the Tomorrow River conducted a study (Wisconsin State Department of Public Instruction, 1980) in Amherst, Wisconsin and five other randomly selected districts in Wisconsin, Ohio, and Minnesota to investigate the effectiveness of all-day kindergarten, half-day kindergarten, and all-day alternate day kindergarten programs, using teacher and parent questionnaires and on-site visits to gather the data. After examining the data the project staff concluded that the all-day programs were more advantageous because they allowed additional instructional time which enabled children to become better prepared for first grade. The increase in time also facilitated teachers to provide additional experiences in art, music, and physical education. Although more costly in relation to space, the all-day program reduced costs related to mid-day busing. Almost 100% of the parents and teachers of the all-day children preferred the all-day kindergarten schedule. (CKA, 1994)

In a Maryland State Department of Education funded study comparing the effects of the length of the kindergarten day (half-day kindergarten – 2.5 hours and all-day kindergarten – 6 hours), Adcock, Haas, and Mitchell (1980) found significant differences between achievement of the all-day kindergarten students and the half-day kindergarten students. In every category of the Survey Battery of the Metropolitan Achievement

Tests, all-day kindergarten students scored significantly higher than the half-day kindergarten students. The researcher noted: "It has been demonstrated that achievement gains before first grade have long term impact and inhibit special education placement in later school grades" (p.6). (CKA, 1994)

Warjanka (1982) investigated the effects of an extended day program for the 30 children who scored the lowest on the Metropolitan Readiness Test Level 1, Form P administered to the four kindergarten classes in a Jersey City school. These children attended a half-day class in the morning and returned in the afternoon for two hours of instruction emphasizing readiness skills. The posttest (Metropolitan Readiness Test Level 1, Form Q) was given six months later and the results compared to half-day kindergarten students. On the posttest there was no significant difference between the achievement of the all-day kindergarten and the half-day kindergarten children. The all-day kindergarten children had come from the lowest levels of achievement to the same levels of achievement of the half-day kindergarten children who had scored much higher on the pretest. (CKA, 1994)

In an experimental kindergarten program in Huntington Beach, CA, 60 children were assigned to two experimental all-day kindergarten classrooms. Anderson (1983, May) reported the results of comparisons in achievement between the all-day kindergarten children and the matched control sample in half-day kindergarten in two other schools in the

district. Year-end achievement on the reading, mathematics, science, and social studies components of the Stanford Early School Achievement Test was significantly higher for the all-day kindergarten children than for the control group, although both groups exceeded curricular expectations. Fatigue was not a problem for children in either group. In the all-day kindergarten programs, there was both more allocated time and engaged learning time in the academic subjects. While the all-day kindergarten programs allocated more time for the fine arts, there was little difference in the actual time spent in art activities between the two types of programs. All the parents in the all-day kindergarten programs preferred this program whereas the parents in the half-day kindergarten programs were about evenly divided between preference for half-day kindergarten and all-day kindergarten. (CKA, 1994)

Slaughter and Powers (1983) reported research conducted in the Tucson Unified School District in which 96 students, identified as below average in entry level abilities, were selected to participate in a small class size extended day program. The sample included limited-English speaking children and was conducted at five Chapter 1 schools. The program was whole-language based, with a strong developmental approach. Achievement was assessed by the CAT/c, Level 10 or the Metropolitan Readiness Test, the Boehm de Conceptos Basicos, and teacher's ratings. The results indicated that the extended day was found to have a positive effect on the achievement of the students regardless of their language background. English monolingual, Spanish monolingual and/or Spanish dominant, and limited English-speaking children made significantly greater educational gains compared to similar children in the half-day programs. (CKA, 1994)

Oelerich (1984) reported the results of four investigations conducted over a ten-year period in a rural community of southern Minnesota. Using the Metropolitan Readiness Test as the assessment instrument, she compared three patterns of kindergarten attendance, all-day kindergarten, half-day kindergarten, and all-day alternate day. In all four investigations, the all-

day kindergarten students scored higher than students in the other groups, and the differences were significant in three of the investigations. (CKA, 1994)

Noting that previous research on kindergarten schedules was limited because of lack of pretests, lack of random selection of subjects, and comparison of only two schedules, Gullo, Bersani, Clements and Bayless (1986) designed and conducted a study to overcome these limitations. The subjects were randomly selected from 12 all-day kindergarten, 10 alternate day, and 8 half-day kindergarten classrooms. The Peabody Picture Vocabulary Test-Revised was administered as a pretest in September, and there was no significant difference among the groups. The researchers noted that the all-day kindergarten schedule enables children to practice skills in "horizontal enrichment activities" (p. 92); additionally all-day kindergarten teachers could get to know the children more than the other teachers, who taught double sessions. In teachers' ratings of prosocial behavior, the alternate day children received significantly more favorable ratings than the all-day kindergarten and half-day kindergarten children, and there was no difference between all-day kindergarten and half-day kindergarten groups. The significant differences were found in relation to negative behaviors (intellectual dependency, failure anxiety, lack of reflection, irrelevant talk, withdrawn, and critical-competitive) and not positive behaviors (originality, individual learning, involvement, productive with peers). The authors offer two explanations of the teachers' prosocial ratings: (1) because alternate-day children are not in school everyday, they may still view school as novel and thus not engage in as much acting out behavior as the other groups, and (2) because the children are only in school every other day, the teachers may not know the children as well as teachers in the other two groups. (CKA, 1994)

The Wichita Public Schools (1989) all-day kindergarten was established in five schools serving "educationally disadvantaged" children in 216 classes. The goal was to provide a balanced readiness program that would

enhance cognitive, social/emotional, and motor development. The Iowa Test of Basic Skills (ITBS) and a test of motor skills were used to compare achievement of the all-day kindergarten children with that of a control group of children from half-day and alternate-day-all day kindergarten programs. Comparisons of school attendance, mobility, retention, placement in special education programs, and cost were also made. Children in the all-day kindergarten programs performed significantly better than the control group on the word analysis and mathematics subtests and on composite grade equivalent of the ITBS. The all-day kindergarten scores on the listening, vocabulary and language subtests were higher than those of the control group, but these results were not significant. There was no significant difference between the groups on motor development, school attendance, or mobility. More children from the all-day kindergarten programs were retained, but there were fewer special education placements from this program. The all-day kindergarten program was more costly than the control program. Observations of the all-day kindergarten classrooms revealed that children did not appear tired in the afternoon. There was more large group instruction "than hoped for," but during the second semester more teachers began using centers.

Beginning in the 1996-97 school year, the General Assembly provided 31.8 million dollars to phase in the implementation of full-day kindergarten programs in all of South Carolina public schools. To assess the outcomes of this initiative, the South Carolina Department of Education (SDE) contracted with MGT of America, Inc. in July 1999, to conduct a comprehensive Evaluation of South Carolina Full-Day Kindergarten Programs. The study was to respond to 15 evaluation questions including:

(1) How many students are being served in full-day kindergarten? (2) How many teachers are teaching full-day kindergarten? (3) To what extent is the pupil/teacher ratio conducive to educational progress? (4) What are quality indicators of effective practices? (5) What are quality program indicators? (6) What kinds of curriculum and/or instructional practices are

being implemented in full-day kindergarten programs? (7) What instructional materials and teaching strategies are being used on a daily basis to implement the curriculum/instructional practices? (8) How is student progress assessed in relation to the South Carolina Kindergarten Standards? (9) To what extent does the full-day kindergarten program determine readiness for first grade? (10) To what extent does the full-day kindergarten program determine academic success of students through grade three? (11) To what extent are student and program success related to nationally identified "best practices" or quality indicators, and the percent of students who tested ready for first grade? (12) To what extent are instructional practices and teaching strategies related to nationally recognized "best practice" and CSAB test results? (13) To what extent has professional development training impacted instructional practices and teaching strategies in the kindergarten program? (14) To what extent are the physical facilities, materials and other resources adequate for implementing full-day kindergarten? (15) What recommendations can be identified to refine and strengthen the implementation of full-day kindergarten programs in South Carolina?

The entire process was completed within the 12-month time period. Of particular interest were the following findings and recommendations:

- The number of full-day kindergarten classrooms in South Carolina increased from 1,153 to 2,071 between the 1996-97 and 1999-2000 school years. Nearly 46,000 students are currently enrolled in full-day kindergarten programs.

- Principals and teachers believe that full-day kindergarten benefits students by providing more instructional time, allowing teachers to incorporate more hands-on learning experiences into the curriculum, providing a richer learning environment, and easing the transition to first grade.

- About 85 percent of the study participants indicated that full-day kindergarten has had a positive impact on student performance through grade three. The study shows the results of CSAB score analysis for tests administered fall 1996 through fall 1999.



The analysis suggests that increases in CSAB scores can be attributed to the implementation of full-day kindergarten programs. Additional analyses revealed that after controlling for significant demographic variables, in the first three implementation years, students who participated in full-day kindergarten programs scored higher, on average, than did students who were enrolled in half-day kindergarten programs.

As reported by the Education Commission of the States (2002), there has been much debate about the appropriate length of the kindergarten day. Traditionally, it has been half that of other grades, or two-and-a-half to three hours in most states. Recent research has shown, however, that children who attend full-day kindergarten are better prepared to succeed in the first grade and beyond (Miller, 2001). Also, for children of working parents, full-day programs limit the number of transitions a child must make during a day, reducing child and parental stress. The commission reports that thirty-nine states mandate that districts offer at least a half-day of kindergarten, and nine states require that districts offer full-day kindergarten. Thirteen states require children to attend kindergarten, and two of those -- West Virginia and Louisiana -- require full-day attendance. At the local level, many districts have begun implementing full-day kindergarten programs, regardless of state law, to meet the demands of parents and the needs of children. Nationally, 60% of kindergartners attend a full-day program. State legislators and educators must take into account the financial implications of half-day and full-day kindergarten programs when setting policy. Unfortunately, there is little data on the cost of full-day kindergarten compared to half-day programs.

A report from Pennsylvania Partnerships for Children (2000) summarizing results from full-day kindergarten programs funded through a grant from the Annenberg Foundation that "Full-day kindergarten works best for kids who need it most -- children at risk of later-life failure because of detrimental circumstances in their homes, communities, and schools." (*Education Commission of the States*) They went on to

further report that full day kindergarten has both immediate and long-term benefits.

- Full-day kindergarten reduces disruptions and transitions in a child's day.
- Teachers have more time for formal and informal lessons, for individual attention, and for reinforcement of positive behavior.
- Full-day kindergartners are more creative and cooperative. They learn and think independently, are more involved in the classroom, and work productively with their peers.
- Full-day kindergartners can get a nutritious lunch, and possibly breakfast, every school day.
- School officials have more opportunities to spot young children's learning and behavioral problems, allowing for more timely and effective intervention.
- Full-day kindergartners show higher scores on first-grade reading readiness tests, on reading tests in early elementary grades, and on achievement tests in grades 3, 5, and 7.
- Full-day kindergartners have better report cards and fewer grade retentions in later school years.
- Schools' remedial instruction and special education costs can decline because of early intervention.
- Children from low-income or educationally disadvantaged backgrounds, in particular, show lasting academic and behavioral benefits. Specific studies in both the Philadelphia and Chicago school districts, with high percentages of educationally disadvantaged students, showed that those first-graders who received full-day kindergarten demonstrated higher performance in reading and math, better attendance and lower failure rates than those who received only half-day service.

### Longitudinal Studies

After comparing similar half-day and full-day programs in a statewide longitudinal study, Cryan and others (1992) found that full-day kindergartners exhibited more independent learning, classroom involvement, productivity in work with peers, and reflectiveness than half-

day kindergartners. They were also more likely to approach the teacher, and they expressed less withdrawal, anger, shyness, and blaming behavior than half-day kindergartners. In general, children in full-day programs exhibited more positive behaviors than did pupils in half-day or alternate-day programs. Similar results have been found in other studies as well.

Humphrey (1980, 1983, 1988) followed the results of a pilot program comparing full-day kindergarten and half-day kindergarten for the Evansville-Vanderburgh School Corporation in Indiana. The pilot included full-day, every-day kindergarten in four schools in the 1978-79 school year and continued the program in 1979-1980. Information from the full-day pilot groups and the half-day control groups were compiled in three follow-up studies continuing into 1987. The children in these four schools were compared with a control group from four other schools that had half-day kindergarten. An evaluation of the first two years of full-day kindergarten was published in 1980, and a second report was issued in 1983 which covered grades one through four. A third study, published in 1988 combines the information from the first two reports covering kindergarten through grade four along with results from grades five through eight. The children of full-day programs were compared on measures of cognitive, linguistic, affective, and psychomotor skills to those enrolled in half-day programs. Data were gathered from observations, interviews, questionnaires, and the following achievement instruments: California Achievement Tests, the Boehm Tests of Basic Concepts, the Gates-MacGinitie Reading Tests, and the Comprehensive Tests of Basic Skills. Further tests such as the Piers-Harris Children's Self-Concept Scale were used to compare the students' attitudes toward themselves and their education experience.

This study found that the majority of full-day kindergarten teachers and primary teachers of children who attend full-day kindergarten are in favor of full-day kindergarten. Most of the parents of children in full-day kindergarten are positive about the program at the end of kindergarten and continue to have a favorable attitude in later years. There is no significant

difference in the attendance of the full- and half-day kindergarten students. Children who attend full-day kindergarten have positive feelings about their kindergarten experience. There is no difference in the school attitudes of self-concept of children who attend full- or half-day kindergarten. Children who attend full-day kindergarten have higher conduct marks on report cards in the primary grades than do children who attend for a half-day. Full-day kindergarten has no significant impact on promotion or nonpromotion of children. Children who attend full-day kindergarten when compared to children who attend half-day kindergarten consistently have higher achievement test scores in all areas tested except handwriting. The children who attend half-day kindergarten have significantly higher handwriting test scores. All other areas have significantly higher total test scores in favor of full-day kindergarten, including readiness tests at the end of kindergarten; reading tests in grades one, two and three; and a battery of standardized tests in grades three, five, and seven. There is no significant difference in participation in middle school extracurricular activities between children who attend full- or half-day kindergarten. Children who attend full-day kindergarten have higher report card academic marks in both the primary and middle school years. Parents, when given the option to enroll their children in full- or half-day kindergarten, almost always enroll their children in full-day kindergarten. The percent of children born in Vanderburgh County who attend public school kindergarten increases with the availability of full-day kindergarten.

### **Evaluation Studies**

The Chicago Public Schools (1986) all-day kindergarten program included 591 children in 23 classrooms in six schools located in poverty areas with predominantly black populations; one school had a largely Hispanic population. The programs focused on mathematics and reading, with 43% of the teachers using basal reading programs. Pre- and posttests were conducted using the ITBS and an affective rating scale. At the time of the pretest, the children were below the norms on the ITBS, but at the posttest they were at or above the norms

in word analysis and mathematics, making five to nine months gain in achievement in 1984 and five to 8 months gain in 1985. They also improved on the affective rating scale, and their attendance was higher than that of children in other city kindergartens. The ITBS results revealed two special groups within the all-day kindergarten sample. The greatest gain consisted of one year or more in various curricular areas. As the authors noted, classes that made such gain had students of high ability and had "teachers who were creative, organized, caring, well able to use parent help every minute of the class day" (p. 21). Classes that made the least gains (under five months) had teachers who were characterized by the observers and by superiors as "being cold, strict, structured, disorganized, rigid, and/or exclusively utilizing whole-group instruction" (p. 21). The teachers filled out the affective scale pretest and posttest. The greatest gains were in social development, specifically learning to get along with others, and "in skills necessary for first grade (concentration, independence, responsibility, following directions, and effort)" (p. 24).

The Columbus Public Schools all-day kindergarten Language Development Component program was established to provide time for additional activities to strengthen and extend the regular classroom instruction for kindergarten students classified as underachieving in 18 schools. The first evaluation report (Johnson, 1988) covered the period 1987-1988 and was compiled on a sample of 386 students who met the criterion of 80% attendance in the all-day kindergarten program. The Oral Comprehension Test of the CTBS, which was administered as pretest and posttest, measured achievement. There was a 28.7% increase in the scores on this test, and 74% of the students made substantial improvement. Parent involvement included participation in class and on field trips, individual conferences, group meetings, and home visits by the teacher. Program teachers attended four inservice meetings devoted to enhancing the program. Based on the evaluation results of the language development component, it was recommended that the program continue.

The second evaluation study of the Columbus Public Schools all-day kindergarten Language Development Component program was conducted by Johnson (1992) and covered the period 1990-1991. The evaluation sample consisted of 399 students. Again the results were positive. Johnson noted: "Program gains were far greater than anticipated and provided a very strong indication of program success, i.e., to better prepare underachieving kindergarten pupils for first grade" (p. 8).

A third evaluation study of the Columbus Public Schools all-day kindergarten Language Development Component program was conducted by Lore (1992) also covering the period 1990-91 but with a different evaluation sample than the preceding report. This sample included 651 students. The achievement of students in this sample on Total Reading exceeded expectations, with 70% of the students meeting the criterion. Successful results occurred in achievement on the Total Reading and Oral Comprehension tests, with 70% and 67.2% respectively of the students meeting each criterion. Based on these data, it was recommended that the all-day kindergarten program be continued.

### Reviews of the Research

Karweit (1992) concluded that the studies showed "modest positive effects for full-day attendance" (p. 83), with the most consistent effects appearing in studies of low-income children. She found little evidence of the long-term effects of all-day kindergarten.

Housden and Kam (1992, in their review of the research on all-day kindergarten, stated that the majority of research supports the following conclusions about all-day kindergarten.

- "A developmentally appropriate full-day schedule benefits children academically and socially—especially children from low socio-economic or educationally disadvantaged backgrounds" (p. 1). All-day kindergarten allows for more instructional time, both formal and informal, more individual attention, more social interaction, and greater enrichment through the arts and physical education.



- "Teachers prefer full-day to half-day scheduling" (p. 1). Teachers liked having more time for individual attention. (Some of the half-day kindergarten schedules included double session.)
- "Parents react favorably to the full-day schedule" (p. 2). Parents appreciated that their children were better prepared for first grade and that the program better fitted their work schedules. Start-up costs can be offset by increased state aid for all-day students, recovered transportation costs (no noon bus to take kindergarten children home), and potentially greater enrollment (p. 2). It was noted that some communities, rather than putting their children in private schools, now took advantage of the full-day kindergarten program.
- "Full-day kindergarten may reduce long-term costs for special and remedial education" (p. 2). The longer day enables kindergarten teachers the time to identify, diagnose, and address problems before children go on to first grade.

Sara Vecchiotti (2001) in her summary, "Kindergarten: The Overlooked School Year", provides key points regarding full school day kindergarten including the following notations. Full School-day programs have been promoted as enhancing instruction and learning in kindergarten (Fromberg, 1995; Rothenberg, 1995). Research indicates that in full school day programs, children spend more time engaged in self-directed, independent learning and dramatic play. Children experience less frustration since there is more time for them to develop their interests. (Elicker&Mather, 1997; Snyder & Hoffman, 2001). Also, full school day kindergarten allows teachers to more easily pace instruction according to children's individual needs, explore instructional topics in depth, develop close parent teacher relationships, and accommodate more teacher-directed individual work with students (Evansville-Vanderburgh, 1988, Cryan, Sheehan, Weichel, Bandy-Hedden, 1992, Elicker & Mathur, 1977).

Space does not permit summaries of earlier reviews of research, but these are listed in the

References: Puleo (1987, 1988), Karweit (1987, 1989), Bay Shore Union Free School District (1983), and Stinard (1982).

Patricia Clark in her recent review of the research conducted in the 1990s on all-day kindergarten (2002) concludes that there are many positive learning and social/behavioral benefits for children in all-day kindergarten programs. She notes that it is important to remember that what children are doing during the kindergarten day is more important than the length of the school day. Gullo (1990) and Olsen and Zigler (1989) warn educators and parents to resist the pressure to include more didactic academic instruction in all-day kindergarten programs.

Dianne Rothenberg, (2000) Associate Director of the ERIC Clearinghouse on Elementary and Early Childhood Education, in a digest prepared for ERIC reports that the majority of five-year-olds in the United States today are more accustomed to being away from home much of the day, more aware of the world around them, and more likely to spend much of the day with peers than were children of previous generations (Herman 1984).

Rothenberg continues to report that among the changes that make full-day kindergarten attractive to many families are the following:

- An increase in the number of working parents. The number of mothers of children under six who work outside the home increased 34 percent from 1970 to 1980 (Evans and Marken 1983). In 1984, 48 percent of children under six had mothers in the labor force (The National Commission on Working Women 1985)
- An increase in the number of children with preschool or day care experience. Since the mid-1970s most children have had some kind of preschool experience in Head Start, day care, private preschools, or in early childhood programs in the public schools. These experiences have provided children's first encounters with daily organized instructional and social activities before kindergarten (Herman 1984)

- An increase in the influence of television and family mobility. These two factors have produced 5-year-olds who seem more knowledgeable about their world and are apparently more ready for a full-day school experience than the children of previous generations
- Renewed interest in academic preparation for later school success. Even when both do not work outside the home, parents are interested in the contribution of early childhood programs (including full-day kindergarten) to later school success.

Rothenberg states that school systems are interested in alternative scheduling partly for the reasons listed above and partly for reasons related to finances and school space availability. Among the reasons considered:

- State school funding formulas. Some states provide more state aid for all-day students, although seldom enough to completely pay the extra costs of full-day kindergarten programs. Other states allow only half-day state aid. Funding formulas would have to change in order for these schools to benefit financially from all-day kindergarten
- Busing and other transportation costs. Eliminating the need for noon bus trips and crossing guards saves the school system money
- Availability of classroom space and teachers. As school enrollment declines, many districts have the extra classroom space and enough qualified teachers to offer full-day kindergarten.

In addition, school districts are interested in responding to parents' requests for full-day kindergarten. In New York City, for example, parents offered this option were overwhelmingly in favor of the plan, initially creating waiting lists of thousands of children ("Woes Plague New York's All-Day Kindergartens" 1983).

Rothenberg found that Herman (1984) believes full-day programs provide a relaxed, unhurried school day with more time for a variety of experiences, for screening and assessment opportunities, and for quality interaction between adults and students.

Rothenberg reports that while the long-term effects of full-day kindergarten are inconclusive, Stinard's review of 10 research studies indicates that students taking part in full-day programs demonstrate strong academic advantages as much as a year later (1982). Stinard found that full-day students performed as well or better than half-day students in every study with no significant adverse effects.

A recent longitudinal study of full-day kindergarten in the Evansville-Vanderberg, Ohio, School District indicates that fourth graders maintained the academic advantage gained during full-day kindergarten (Humphrey 1983).

School districts that have planned a developmentally appropriate, non-academic curriculum with well-paced activities have reported few problems with full-day scheduling (Evans 1984; Stinard 1982).

Rothenberg continues by pointing out the disadvantages of full day kindergarten by noting that critics point out that full-day programs are expensive because they require additional teaching staff and aides to maintain an acceptable child-adult ratio. These costs may or may not be offset by transportation savings and, in some cases, additional state aid. She also found that other requirements of full-day kindergarten, including the use of more classroom space, may be difficult to satisfy in districts where kindergarten or primary grade enrollment is increasing and school buildings have been sold. In addition to citing added expense and space requirements as problems, Rothenberg reported that opponents argue that full-day programs may become too academic, concentrating on basic skills before children are ready. In addition, they are concerned that one half-day of an all-day program may become merely child care.

Rothenberg points out that many educators still prefer half-day, everyday kindergarten. She states that they argue that a half-day program can provide high quality educational and social experience for young children while orienting them adequately to school. Specifically, half-



day programs are viewed as providing continuity and systematic experience with less probability of stress than full-day programs. Proponents of the half-day approach believe that, given the 5-year-old's attention span, level of interest, and home ties, a half day offers ample time in school and allows more time for the young child to play and interact with adults and other children in less-structured home or child care settings (Finkelstein 1983).

Rothenberg continues to point out that the disadvantages of half-day programs include disrupting children midday to move them from one program to another and inconveniencing parents who must arrange transportation if busing is not provided by the school. Even if provided, schools may find the extra trip expensive. In addition, the half-day kindergartner may have little opportunity to benefit from activities such as assemblies or field trips.

Dianne Rothenberg (1995) concluded that research supports the effectiveness of full-day kindergarten programs that are developmentally appropriate, indicating that they have academic and behavioral benefits for young children. She notes that in full-day programs, less hectic instruction geared to student needs and appropriate assessment of student progress contribute to the effectiveness of the program. She acknowledges that these can also be characteristics of high-quality half-day programs, however, many children seem to benefit, academically and behaviorally, from all-day kindergarten experiences. Rothenberg added that other important issues include the nature of the kindergarten curriculum and the quality of teaching. She further reported that some researchers have found a broad range of effects, including a positive relationship between participation in full-day kindergarten and later school performance.

### **Theoretical Literature**

Olsen and Zigler (1989) raised questions regarding the benefits of all-day kindergarten. Reviewing research published from 1970 to 1986, they questioned whether present all-day kindergarten programs have a broader

curriculum, more individualized instruction, a nutritious lunch, and increased parent participation. They cautioned about the emphasis on achievement. In response, Caldwell (1989) stated that Olson and Zigler were so concerned about all-day kindergarten only being used to provide more time for academic pursuits that they gave little attention to evidence that supports all-day kindergarten programs. However, she agreed with their caution about overemphasis on readiness and academic learning at the expense of an all-around program.

Gullo (1990) noted that all-day kindergarten responds to both a societal need and an educational need. All-day kindergarten teachers have time to provide individual attention and to know their students. He cautioned about adverse pressures regarding curriculum and stressed the importance of developmentally appropriate programs

In her book, Fromberg (1987) has written a comprehensive account of all-day kindergarten that includes rationale, conditions that characterize a successful all-day kindergarten program, curriculum design, types of facilities, and costs.

### **State Laws and Policies**

In a report prepared by Patricia deCos (2001) on the History and Development of Kindergarten Children, she presented the following statistics reported by the State Departments of Education, CCSSO Policies and Practices Survey, 2000.

A total of 15 states were found that require their districts to offer full-day kindergarten programs including, Alabama, Arkansas, DoDEA, Florida, Georgia, Hawaii, Louisiana, Mississippi, North Carolina, South Carolina, South Dakota, Texas, Vermont, Virginia, and West Virginia.

Ten states that offer no state policy and leave the decision up to the local district include, Alaska, Colorado, Idaho, Kansas, Maine, Michigan, New Hampshire, New Jersey, New York, and Washington.

\*Twenty six states require that their districts offer a half-day program. These states include, Arizona, California, Connecticut, Delaware, Illinois, Iowa, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Utah, Wisconsin, and Wyoming.

\*It must be noted that within those states which require their districts to offer at minimum a half-day kindergarten program, that several full-day programs are also being offered.

### Recent State Legislation

*Education Commission of the States (2002)*  
The following summary includes policies enacted since 1999. Summaries are collected from *StateNet*, *Lexis-Nexis*, state Web sites and state newsletters. *StateNet* and *Lexis-Nexis* descriptions reflect the content of bills as introduced and may not reflect changes made during the legislative process.

**California** Signed into law 07/2001, pre-K-12 – This law authorizes a pupil in a kindergarten in a school operating on a program of multitrack year-round scheduling to be kept in school on any day for 265 minutes of instruction, exclusive of recesses.

Title: A.B. 764

Source: Lexis-Nexis/StateNet

Found at: [http://www.leginfo.ca.gov/cgi-bin/postquery?bill\\_number=ab\\_56&sess=CUR&house=B&author=liu](http://www.leginfo.ca.gov/cgi-bin/postquery?bill_number=ab_56&sess=CUR&house=B&author=liu)

On December 2, 2002, a recent bill: AB56 was introduced by Assemblymen Liu and Daucher with co-authors: Senators Alpert and Karnette, asking for

“Full day compulsory kindergarten for all children. The state should provide for the phasing in of full-school day kindergarten, beginning immediately, for children in high-risk communities as determined by the lowest 3 deciles of the Academic Performance Index and then annually expanding thereafter to include all California children.”

### Summary

Dianne Rothenberg (1995) offers the following conclusions based on her extensive review of the topic of all-day kindergarten.

“Observers of trends in kindergarten scheduling argue that changing the length of the kindergarten day is not as important as making sure that all kindergartners are provided with developmentally and individually appropriate learning environments, regardless of whether these programs are full day or half day.

Recent research supports the effectiveness of full-day kindergarten programs that are developmentally appropriate, indicating that they have academic and behavioral benefits for young children. In full-day programs, less hectic instruction geared to student needs and appropriate assessment of student progress contributes to the effectiveness of the program. While these can also be characteristics of high-quality half-day programs, many children seem to benefit academically and behaviorally from all-day kindergarten. Of course, the length of the school day is only one dimension of the kindergarten experience. Other important issues include the nature of the kindergarten curriculum and the quality of teaching.”

In the review of the topic of all-day kindergarten presented here, we have reported on 15 research studies, 2 evaluation studies, 5 historical and current reviews of research, and 3 theoretical reports.. We have presented the findings on all-day kindergarten, covering to the best of our ability, the publication period 1980 to the present. We leave to you, the readers, to draw conclusions from these findings.

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