

DOCUMENT RESUME

ED 113 044

PS 008 106

AUTHOR Cage, Bob N.; Emerson, Peggy
 TITLE The Status of Kindergartens.
 INSTITUTION Mississippi Univ., University. Bureau of Educational Research.
 PUB DATE Nov 73
 NOTE 13p.
 JOURNAL CIT Research in Education (University of Mississippi); v7 n1 Nov 1973

EDRS PRICE MF-\$0.76 HC-\$1.58 Plus Postage
 DESCRIPTORS Affective Behavior; Cognitive Development; Educational Diagnosis; Full State Funding; *Kindergarten; *Program Costs; Social Development; *State Aid; *State Legislation; *State of the Art Reviews; Transitional Classes
 IDENTIFIERS *Mississippi

ABSTRACT

This paper attempts to analyze current research on kindergartens, to assess kindergartens' contribution to public school education, and to provide Mississippi legislators and educators with a basis for making decisions concerning a state supported kindergarten program. A chart summarizing legislation relating to kindergarten in the 50 states (through 1972) is presented. At the time of the report Mississippi was one of five states having no state-supported kindergarten program. Research is cited to show the cost-benefit of kindergarten programs and the benefits of preschool education in cognitive, affective, and health areas. Criticisms of preschool education and counterarguments are reviewed, and it is concluded that research to date supports the importance of early childhood education, especially kindergarten. Figures are given for low kindergarten attendance and high drop-out rates in Mississippi schools, and suggestions are made for initiating and implementing a kindergarten program in the state. The operating costs of three alternative programs are examined, and the practical issues of facilities, curriculum, transportation, and personnel are discussed.
 (GO)

 * Documents acquired by ERIC include many informal unpublished *
 * materials not available from other sources. ERIC makes every effort *
 * to obtain the best copy available. Nevertheless, items of marginal *
 * reproducibility are often encountered and this affects the quality *
 * of the microfiche and hardcopy reproductions ERIC makes available *
 * via the ERIC Document Reproduction Service (EDRS). EDRS is not *
 * responsible for the quality of the original document. Reproductions *
 * supplied by EDRS are the best that can be made from the original. *



BUREAU OF
EDUCATION
RESEARCH
SCHOOL OF
EDUCATION

RESEARCH IN

NOVEMBER 1973

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

VOLUME 7 NUMBER 1

THE STATUS OF KINDERGARTENS

by
Bob N. Cage and Peggy Emerson

The debate of the need for state supported kindergartens in Mississippi continues. Much has been said, both pro and con and much remains to be said. Further, it is evident a need still exists to pull together the current research on kindergartens, to delineate kindergarten's contribution to public school education, and to provide legislators and professional educators a basis on which a professional decision concerning kindergartens can be made. Such is the purpose of this paper.

Who Funds Kindergartens Presently only five states remain in the United States that do not have a state supported kindergarten program. As seen in Table I, they are the states of Mississippi, Montana, New Mexico, North Dakota, and Oregon. Eleven of the states with kindergarten programs have had legislation within the last five years establishing state supported programs. Nine of these eleven states are in the South or Southeastern region of the United States.

The majority of states fund kindergartens as a part of their foundation program and include transportation costs in the allotment. Most foundation programs fund full day kindergartens on the same basis as full day elementary students and provide one half the amount for half-day kindergarten programs.

In fall, 1971, 2,483,000 children in the United States attended public kindergarten or some form of pre school program financed by Federal, state, or local funds.¹ Of this number, Mississippi had only 828 students enrolled, not including Headstart, with all programs financed by Federal and local funds.

The cost benefit of kindergarten programs has been recognized by many (Dunworth, 1968, Riles, 1972, White, 1972). In reality, the cost of education in the early years and again in the later adult years is often the most expensive. White (1972) points out.

Currently, we spend comparatively little public money on the education of children until they are six years of age. Subsequently, we tend to spend more and more each year as children move through the system. There is good reason to question the wisdom of this arrangement. It may turn out to be more sensible to invest heavily in the first years of a child's life and spend less as he moves through elementary and secondary education. Such a shift of resources would be sure to meet resistance, but I believe it is inevitable.

How Kindergarten Graduates Compare to Non-Kindergarten Graduates More has been written on the benefits of and need for pre-school education during the last few years than ever before (Bloom, 1964, Combs, 1972, Gardner, 1972, Lazerson, 1972; Mason, 1972, Mindess and Keliher, 1967). Bloom (1964), in his research on the stability of achievement, points out that "17 percent of the growth (in educational achievement) takes place between ages four and six . . ." and in terms of stability and intelligence, "about 50 percent of the development takes place between conception and age four . . ."

Cognitive Area Studies related to pre-school experiences for culturally disadvantaged children have shown significant differences favoring the experimental groups who had had pre-school experiences over control groups who had not (Bonney, 1956; Burgess, 1965; Deutsch, 1963) Murphy (1966) reported in the Lesley College Kindergarten Conference Proceedings that children in the third grade who had had a planned program of auditory and visual experience with letter names and sounds in kindergarten were superior in arithmetic and reading to children who had not had the program. Fuller (1961) and Haines (1960), in earlier studies, supported the findings of kindergarten children surpassing nonkindergarten children in arithmetic skills.

The research comparing the achievement of first grade children who attended kindergarten with those who

(continued on page 5)

¹U. S. Department of Health, Education, and Welfare, Office of Education, *Statistics of Public Elementary and Secondary Day School* (Washington, D. C.: Government Printing Office, 1971), p. 6

TABLE I
State Legislation Relating to Kindergarten¹

State	Legal Entrance Age	State Legislation and Funding
Alabama ^d	5 by start of school	Enacted a law empowering county boards of education to establish and maintain kindergartens and playgrounds.
Alaska	5 by Nov. 2	State aid provided to kindergarten as part of state foundation program at one-half amount for elementary school pupils. Transportation costs are included.
Arizona ^d	5 by Jan. 1	Enacted a \$4.5 million kindergarten program. Law provides for one-half ADA funds for new kindergartens. (Excluded from 6 percent budget limit for first year) and same state funds for existing kindergartens (not excluded from 6 percent limit), unless an exemption claims is filed annually.
Arkansas ^b	5 by Oct. 1	Local school districts authorized to incorporate a program of kindergarten education for five-year-old children as part of over-all program; provides that state board of education shall promulgate rules and regulations providing minimum standards. Maximum allocation is \$9,000.00 for a full day program; \$4,500.00 for one-half day program per classroom unit.
California	4 yr. 9 mo. by Sept. 1	State aid as part of foundation program based on ADA
Colorado	5 by Sept. 15	Required for accreditation but not required by statute. State aid as part of foundation program.
Connecticut	5 by start of school	State aid provided as part of foundation program and includes transportation costs.
Delaware	5 by Jan. 1	State board of education was directed to establish uniform rules relative to establishment of kindergarten in the local school districts. Provided \$530,000.00 for public kindergartens for the fiscal year ending June 30, 1969. Now a part of foundation project and all districts had kindergartens in operation by 1971.
Florida ^a	5 by Jan. 1	Beginning July 1, 1968, the public schools provided 13 consecutive years of instruction, starting with kindergarten. Kindergartens were implemented on a state-wide basis in annual increments so that all children were served by 1973.
Georgia ^e	5 by Jan. 1	Funds for a limited early childhood education program (kindergarten) were appropriated. This was a first step toward state-wide kindergartens.
Hawaii	5 by Dec. 31	Ninety eight and two-tenths percent of five-year-old population of 16,817 are enrolled in kindergartens, both public and private. Only 2,615 of them attend private programs. Program totally state funded.

¹Data in this table reflect legislation through 1972.

TABLE I (continued)

Idaho	5 by start of school	Has 100 percent state supported permissive kindergarten programs.
Illinois	5 by Dec. 1	State aid as part of regular school reimbursement program. Maximum per pupil dollar based on equalization formula.
Indiana	5 by start of school	Kindergartens are provided state funds through State Department of Public Instruction within public school grant on half-day per capita basis.
Iowa	5 by Dec. 31	State aid provided through foundation program. State Department of Public Instruction provides leadership in up-grading kindergarten programs through consultative services and inservice workshops.
Kansas	5 by Sept. 1	State aid provided as part of foundation program, counted as one-half regular student. Transportation costs included in state aid.
Kentucky ^e	5 by Dec. 31	Operation of kindergartens during 1973-74 and subsequent years authorized through the foundation program under regulations of the state board of education (SB 289); 100 kindergarten classroom units funded for 1973-74 (HB 335).
Louisiana	4.8 years	State aid on same basis as for grades 1-12. Teachers supplied on a 28 to 1 ratio.
Maine	5 by Oct. 15	Aid as part of state foundation program.
Maryland	5 by start of school	Full kindergarten programs implemented in all counties by September, 1973.
Massachusetts	4.8 years	State aid provided as part of foundation program.
Michigan	5 by Dec. 1	State aid provided as part of foundation program.
Minnesota	5 by Sept. 1	State aid provided as part of foundation program. Kindergarten pupil counted as one-half pupil enrolled in another grade.
MISSISSIPPI	5 by Dec. 1	NO STATE AID
Missouri	5 by Oct. 1	Foundation program aid for kindergarten is based upon one-half of the total days attended by kindergarten children. Transportation costs are included.
Montana	5 by start of school	No state aid.
Nebraska	5 by Oct. 15	State aid as part of foundation program based on ADM.
Nevada	5 by Dec. 31	State aid provided through foundation program.
New Hampshire		State aid as part of foundation program to those districts which qualify.
New Jersey		State aid as part of foundation program for four- and five-year-olds.

TABLE I (continued)

New Mexico		No state aid.
New York *		In 1969-70, \$604 per child per year for full day; \$302 per child per year for one-half day as part of foundation program including transportation costs.
North Carolina ^d	5 by Oct. 16	State funds were provided for 18 model development programs on two year basis in 1970. State at 25 percent of need level by Sept., 1971. Aid provided as part of regular state support program. \$3 million in new funds appropriated for expansion of state kindergarten system in 1972.
North Dakota	5 by start of school	No state aid.
Ohio	5 by Sept. 30	State aid for kindergartens provided through state foundation program.
Oklahoma ^b	5 by Nov. 1	State aid provided as part of foundation program, amount based on ADA. Provided additional appropriation of \$1,600,000.00 for kindergarten program in 1970; provided for free kindergartens with districts having programs at present to receive 60 percent of one-day average daily attendance, and districts with kindergartens for first time to receive 100 percent in 1971-72; in 1974-75 all districts shall receive 75 percent ADA for kindergarten and such program shall be mandatory.
Oregon	None	No state aid.
Pennsylvania	4 years	School districts receive reimbursement for instruction from the Department of Education at same rate for kindergarten as for any other grade level.
Rhode Island	5 by Dec. 31	State aid as part of foundation program.
South Carolina ^b	5 by Nov. 1	Not part of foundation program. Annual Grants to State Department for pilot program. \$500,000.00 in both 1969-70 and 1970-71. Legislative effort to expand state-wide kindergarten education in 1972 partially achieved.
South Dakota	5 by Nov. 1	State aid under same minimum foundation grant as grades 1-12.
Tennessee	5 by Oct. 31	Funds do not permit fully supported state program. Funds were used to finance limited program in each school district of state in 1970-71. Provided an additional \$1,713,900.00 in state funds for kindergarten program in 1972.
Texas	5.5 by Sept. 1	State aid provided in Sept., 1970, first to "educationally handicapped" then to pre-school.
Utah	5 by start of school	State aid as part of foundation program. Utah now had kindergarten in all but 2 small rural districts.
Vermont	5 by start of school	State aid funds provided as part of over-all state aid given school districts.

TABLE I (continued)

Virginia	5 by Sept. 30	State aid as part of foundation program. Removal of statutory restriction of a minimum kindergarten enrollment for third-class districts before a kindergarten program can be offered. All school districts allowed to conduct a full-year kindergarten program on the basis of 90 full days instead of 180 half days. (Ch. 105, Ex. Sess. 1972)
Washington	5 by start of school	State aid as part of foundation program.
West Virginia ^d	5 by start of school	Adoption for the first time of a statewide mandated early childhood education program, to go into full effect by the 1972-73 school year. Requires all counties to establish such programs for all 5 year olds but counties may include children below the age of 5. Another feature of the legislation sets up an appropriation for establishing regional early childhood education demonstration centers for experimental and innovative early childhood education programs. State cost of the program is set at \$3.5 million.
Wisconsin	5 by Dec. 1	State funds as part of foundation program at rate of one-half membership per enrollee.
Wyoming	5 by Sept. 15	State aid as part of foundation program. Fifty half-day students in ADM entitled to one "classroom unit" of \$11,800.00 (1971-72).

^aLegislation enacted in 1968
^bLegislation enacted in 1969
^cLegislation enacted in 1970
^dLegislation enacted in 1971
^eLegislation enacted in 1972

did not favor those children with kindergarten experience (Arkin, 1964; Burgess, 1965; Geedy, 1956; Haines, 1960; Holey, et al, 1963; Meyers, 1963; Trusal, 1955). In only one area, that of reading, are there inconclusive results. Smith (1964) reported a summary of 58 reports and statements on early reading. Her conclusions were that. 1) the organized teaching of reading in kindergartens was not effective in contributing to reading maturation and 2) kindergarten teachers could better spend their time providing children abundant contacts with reading symbols in meaningful situations rather than trying to teach reading from a basal reader.

A substantial amount of research has been done on the change in the measure of intelligence of children who have had kindergarten or pre-school experience (Almy, 1964; Bloom, 1964; Mindess and Keliher, 1967; Wann, et al., 1962). Almy (1964) states:

... intelligence, rather than being fixed by genetic factors at birth, emerges as it is nurtured. Each stage of development carries with it possibilities for the acquisition of new abilities, new ways of processing information. Unless each of these abilities is sufficiently exercised as it emerges, it will not develop fully and it will contribute little if at all to the demands of the next stage.

Gray and Klaus (1970) reported significant findings in their longitudinal study of an early training project involving a preschool intervention program. The experimental and control children were studied and tested from

RESEARCH IN EDUCATION

Volume 7, Number 1

November 1973

Published by the Bureau of Educational Research, School of Education, University of Mississippi, University, Mississippi 38677.

Sylvester A. Moorhead, Dean
 Bureau of Educational Research
 Bob N. Cage, Director

In compliance with Title VI of the Civil Rights Act of 1964, the University of Mississippi makes available its teaching, research, and service programs and its facilities to every qualified person regardless of race, creed, color, sex, or national origin. The University of Mississippi is an Equal Opportunity Employer.

1962 to 1968 through their completion of the fourth grade. Throughout the study the experimental children remained significantly superior to the control children on intelligence tests. Vocabulary and achievement differences were found to significantly favor the experimental children in both the first and second grades. The three tests used in this comprehensive study were the Stanford-Binet, Peabody Picture Vocabulary test (PPVT), and the Metropolitan Achievement test.

Conway, et. al (1968), in a study of 22,000 elementary school children in Canada, indicated that at the end of grades 1, 2, and 3, I. Q.'s were higher for children who had had kindergarten compared to those who did not. They also indicated that kindergarten attendance was related to higher achievement in reading comprehension, word meaning, spelling, and arithmetic at grade 2.

Sister Pineault (1967), in her study at Cornell University, concluded:

This research leads us to conclude that children who have attended kindergarten have an advantage in I. Q. gains, as measured by the PPVT, over those children who have not had such experience. Furthermore, it substantiates the findings that kindergarten is of greater help to children from lower socio-economic classes, whereas children from upper classes enter kindergarten with higher I. Q.'s and therefore improve less than their lower level classmates.

Affective Area Gardner (1972) extended the general concept of "kindergarten experience" for five year olds when he stated "the research consistently indicates that kindergarten-educated children tend to be superior to nonkindergarten-educated children in traits related to good attitudes and habits." Shaw (1957) reported that both public pre-school experience and private pre-school experience were found to make significantly greater contributions to social adjustments of first grade children than did no organized pre school experience. The behavior of kindergarten age children is more easily modified and guided than that of children at later ages (Chamberlin and Nader, 1971). Also, most behavior and learning problems begin to appear at this age; thus, they are more easily dealt with and treated than at a later age. The skills learned in the structural setting of a kindergarten class are readily transferred to and become a part of the child's social behavior outside the classroom (Altman, 1971). Louise Bates Ames (1972) points out, "Within this initial 3 year period (ages 5-7), the child should be helped to find his place in a group suited to him. The rate and method of growth of most children can be picked up in kindergarten." The kindergarten classroom seems to provide many and varied experiences to five year olds that cannot be attained elsewhere.

Health Area Another argument for kindergartens has been established by professionals in the area of medicine and psychology (Biber, 1968; Chamberlin and Nader, 1971, Etaugh and Van Sickle, 1971; Ferenden and Jacobsen, 1970, Mindess and Keliher, 1967). By having five year olds in school, screening for physical, emotional, and behavioral

problems can be accomplished earlier than currently done in first grade. From four to nine percent of elementary children exhibit symptoms of developmental speech and language disorders (Wyatt, 1965). The earlier these can be detected and treated, the more readily the child can adapt to the school learning environment.

A three year research project conducted by the United States Public Health Service and the Boston Department of Health and Hospitals found that eyes develop fully around the age of six years (U. S. Public Health Service, 1967). Lazy eye blindness, which develops earlier, can only be helped if it is detected before eyes are fully developed.

De Hirsch, Jansky, and Langford (1966) showed in their study of perceptual motor and language behavior that "valid prediction of reading, spelling, and writing achievement can be made by evaluating children's perceptual motor and language behavior in early years," and that many "intelligent but educationally disabled children... would not have required help had their difficulties been recognized at early ages. Early identification would have alleviated the need for later remedial measures." Weiner (1973) further supports early screening and has demonstrated its value in ascertaining unsuspected learning problems.

Kindergarten's Place One of the recent arguments raised against existing kindergartens is that it is a separate form of educational program and therefore should not be considered a part of the regular 1-12 program (Spodek, 1973). Most research does not support this concept (Dunworth, 1968; Headley, 1965; Headley, 1966; Mindess and Keliher, 1967). Almost all existing public school kindergartens are housed in or near the same facility with elementary school classes, with kindergarten teachers being an integral part of the elementary school faculty. Directors of pre-service and in-service training for teachers naturally include kindergarten teachers in all aspects of curriculum planning for the elementary school. The purpose of kindergarten is often defeated if it is conducted separately and apart from the regular school program.

Kindergartens have been strongly supported for their usefulness in helping five year olds make a successful transition from home to school (Berson, 1959; Beyer, 1968, Hymes, 1970; and Masry, 1972). The first year of school is often a traumatic experience for some children. Going from an unstructured learning situation in the home to a highly structured first grade classroom can create anxieties and learning problems that may be difficult to overcome in the future. This was evidenced in part in Mississippi during the 1972-73 school year when 13 percent of the first graders were not promoted and another 1.54 percent dropped out before the end of the year.²

²Mississippi State Department of Education, Division of Administration and Finance, *Statistical Data, 1972-73* (Jackson, Mississippi: Mississippi State Department of Education, 1973), pp. 17-18.

The social warmth of a kindergarten classroom has also contributed to the growth in social maturity for many five year olds. Pettonen (1965) has been deeply concerned about the educational climate of kindergarten classrooms and concludes:

This century has been called a children's century. More than ever it has been perceived that by directing care and love toward children we are building a better future for the whole world. A happy and secure childhood is the best basis for future life.

The social behavior of young children is shaped predominantly in the early years. Five year olds, when not influenced overwhelmingly by adults, see very little or no difference between race and socio-economic groups. The kindergarten classroom is an excellent location for social behavior to be molded and grow (Altman, 1971; Gardner, 1972; Hilton, 1972). The many differences and prejudices held by adults are often transferred to young children, consciously and unconsciously. Social integration in the structured setting of a pre-school classroom could tend to alleviate learned or inferred social prejudices. As Flint (1970) has stated, "Past failures to educate socially and culturally deprived children have indicated the need for a new look. . . . Nothing could be lost and perhaps much could be gained by cutting down failures both in academic achievement and in human resources."

Review of Comments From Critics This review of pertinent literature would not be complete without a look at criticism raised in recent years about early childhood education. One of the most formative critiques, "The California Report: Early School For All?" (Moore, et. al., 1972) seriously questions formal schooling for children four years of age and under. The authors are critical of the recommendations brought forth in the "Report of the Task Force on Early Childhood Education," State Board of Education, Sacramento, California (1971). The California Study recommended academic schooling be provided at public expense to all children four years of age and older. Moore, et. al., propose that not enough research has been done with four year olds on a longitudinal basis to justify formalized schooling for this age child and cites research that 1) criticizes early school entrants, 2) relates how brain maturation effects learning at various age levels and 3) describes the effects of maternal deprivation on young children. It is important to note that Moore, et. al., do not mention "kindergarten" or "five year olds" in their discussion as kindergarten is already an integral part of the California public school system.

Two subsequent reports, "The Real California Report: A New Approach to Education" by Elizabeth Lewis (1973) and "To Search But Not To Find: Further Observations on Early Childhood Education" by Vera C. Taylor (1973), provide significant rebuttals to Moore, et. al. Lewis (1973) points out ". . . most specialists differ from the Moores in the way they view the field of early childhood and more specifically in their interpretation of the California Childhood Education Report." She further contends that opponents of early childhood education. 1) interpret schooling as the kind of academic education con-

ducted in most elementary schools today, and 2) cite research data on maternal deprivation secured in institutional settings and apply it to the short-term mother/child separations that occur when a child goes to school. Lewis agrees with the Moores that "too-much-too-young" is not good and reiterates that the California Report recommends a "positively reinforcing environment where optimal learning and development can take place." The California plan is an attempt to have the schools supplement the home, not take the place of it.

In the second article mentioned above, Taylor (1973) severely criticizes Moore, et. al., for not documenting several sweeping generalizations. Also, Taylor points out that the evidence supplied by Moore to compare relative classroom achievement was based on first graders, not preschoolers as Moore, et. al., had indicated.

Taylor (1973) continues with her argument that much of the Moore's documentation is not relevant to the Early Childhood Education Program proposed for California and states:

Of the nine researchers alluded to in Moore's first Kappan article, seven are cited in the Congressional Record version. Of them, four are studies of infant programs, two an analysis of foreign day care and children's homes, and one is a study of foster children! None of these is comparable to a three-or-four-hour enriched pre-school program with a parent involvement component. None relates accurately to the question at hand.

Christopher Jencks (1972), in his book *Inequality, A Reassessment of the Effect of Family and Schooling in America*, makes the statement that "Pre-schools have little permanent effect on cognitive development." He further states, however:

Within any given school there were dramatic achievement differences between those children who had attended kindergarten and those who had not. Black sixth graders who said they had attended kindergarten scored ahead of black sixth graders who said they had not been in kindergarten. This was true in all the EEDS sixth grade tests, even after socio-economic differences between kindergarten and nonkindergarten had been taken into account.

Jencks continues, "There was a similar gap between white kindergarten alumni and nonalumni on the verbal test, though the difference on the reading and math tests was much smaller." These seemingly opposing conclusions are perhaps explained as follows:

1. When students in schools across states or regions were compared, little or no differences existed between those students who had had some type of pre-school experience with those who had not when socio-economic factors were considered, and
2. When students within a school system or school district who had had a kindergarten experience were compared with those who had not, differences favoring kindergarten alumni were almost always significant, regardless of socio-economic background.

A major thrust of Jenck's (1972) study was the reevaluation of the data collected and analyzed in the Coleman Report (1966). One of the major critics of the Coleman report has been Henry Levin (1968). Levin has pointed out rather conclusively that: 1) differences on per pupil expenditures between schools in the same districts were ignored, 2) a much higher proportion of non-whites were used in the sample than the population to which the findings were inferred, 3) the statistical analysis used (multiple regression) forced in background variables first for their accounting of variance in achievement and then school variables were entered for their additional contribution to variance, and 4) the variables used to control background factors were so highly correlated with other variables being adjusted that school effects were largely removed.

Although each of those criticisms is valid, they do not deny Jenck's conclusion about kindergartens within a school system or school district. Regardless of race or socio-economic background, kindergarten alumni in a given school district performed better in school achievement than did nonkindergarten alumni.

Gutherie (1972), in his *Saturday Review* article "What the Coleman Reanalysis Didn't Tell Us," pointed out that different statistical treatments with the Coleman data have demonstrated that schools can have a significant impact upon students. Gutherie further states that neither the Coleman Report nor the Harvard seminar papers (Mosteller and Moynihan, 1972) should be used in the public policy arena.

What about MISSISSIPPI The research to date supports the concept of early childhood education, especially the importance of kindergarten for five year olds. When the number of first grade retentions and dropouts in Mississippi is considered (see Table II), it seems evident that a pre-school experience of some type would help alleviate this problem in Mississippi. Only 15 percent of the five year olds in Mississippi attend public or private kindergartens compared to 86 percent nationwide.³

TABLE II
First Grade Retentions and Dropouts in
Mississippi for 1969-1973

Year	Percent Non-Promoted	Percent Dropouts
1969-70	15.41	2.21
1970-71	14.63	2.16
1971-72	13.35	1.73
1972-73	13.00	1.54

For the past four years an average of 1,005 students per year has dropped out of first grade in Mississippi, most of whom never return to school. Combined with dropouts

³"School's Present Top State Challenge," *Tupelo Daily Journal*, Tupelo, Mississippi, September 18, 1973, p. 19.

in succeeding years, only 39.49% of the entering first graders in 1960 finished the 12th grade in 1972. Equally astounding, as recorded by the 1970 census, is that 30,000 adult Mississippians have no schooling at all!⁴

Of the children who completed first grade and entered second grade, the percent of increase for completing high school ranged from 6.5 percent in 1972 to 10.16 percent in 1970. (See Table III) Successful completion of the first year of school attendance increases the probability of high school graduation.

TABLE III
Holding Power of Mississippi Schools

Year	Percent of First Graders Finishing 12th Grade	Percent of Second Graders Finishing 12th Grade	Percent Increase
1969-70	42.50	52.66	10.16
1970-71	38.36	46.31	7.95
1971-72	39.49	45.99	6.50

The following are offered as some alternative considerations for initiating and implementing a kindergarten program in Mississippi. These suggestions are not all inclusive but are representative of procedures developed and used by other state supported kindergarten programs.

A Suggested Initial Approach Kindergarten education is a unique kind of education and requires a phase-in approach to insure quality programs offering appropriate experiences for young children. A suggested approach would be that upon the petition of at least 20 percent of the qualified electorate of a given school district in Mississippi, the district Superintendent of Schools is obligated to submit a letter of "need for kindergartens" to the State Department of Education. The State Department of Education is 1) responsible for disbursing said monies to the school district for establishment of the kindergarten program, and 2) establishing rules and regulations for curriculum materials, facilities, teacher certification, and program development.

Assuming funds are appropriated by the 1974 legislature to implement only partially kindergartens statewide, it is recommended the implementation be in steps using the following criteria:

1. Districts which submit a letter of "need for kindergartens" would have first priority.
2. If more districts desire kindergartens the first year than there are funds for programs, districts would be randomly selected by the State Department of Education.
3. No one district should be partially funded. Partial funding forces the local Superintendent of Schools to select children from among those

⁴*ibid.*

eligible and, regardless of choice, some parents who supported the original petition will be discriminated against. When funding is not sufficient for state-wide implementation, random selection of school districts at state level is more feasible.

- 4 Each succeeding year the remainder of the districts are funded based upon their 'need for kindergartens.'

A half-day program of three hours in length is ideally suggested for this age child. Several alternatives should be considered, however. 1) three hours of kindergarten for children and full day for teacher planning, 2) two half day's for two separate groups of children and one teacher for both groups, and 3) one half-day session for children and teacher.

Operating Costs In determining the expenses for implementing each of the three (3) alternative programs, a state allocation of \$3,500,000.00 is used for exemplary purposes.

If under Alternative One (1) 22 students were considered a maximum class size and a certified teacher were hired on a full day basis, \$700.00 per child would put 5000 of the state's 40,000 children eligible for kindergarten in a kindergarten program. Twenty two students @ \$700.00 per student provides \$15,400.00 to hire a teacher, provide transportation, equip a classroom, and in some districts lease a classroom (described under Facilities).

With Alternative Two (2), twice the number of children are included in a program when conducting classes both morning and afternoon. One fourth, or 10,000, of the approximately 40,000 children in the state could be reached under this plan, with the cost per student being reduced to \$350.00 per child. This plan, however, places an extraordinary amount of work and planning on the teacher as she prepares for two separate classes each day.

Alternative Three (3), one half day for both children and teacher, reaches as many children for the same cost as does Alternative Two (2), except for the expense of duplicating facilities. This plan is usually used by those school districts which want kindergarten only in the morning and can find teachers willing to work on a half-day basis.

Facilities For those school districts desiring a kindergarten program which do not have adequate facilities, the State Department of Education could let bids for portable or mobile double-wide (24'x60') unfurnished classroom units. These could be purchased on a lease to purchase agreement at approximately \$1000.00 per year per unit. The unit would include heat, air conditioning, bathroom, and appropriate flooring material.

Curriculum program The State Department of Education should set guidelines for the program content of all kindergarten programs. These guidelines should be established through the cooperative efforts of State Department of Education staff members, college and university faculty members, and public school Elementary and Early Child-

hood Education supervisors. A statewide committee made up of these persons could be appointed by the State Department of Education and make its recommendations to the State Superintendent of Education.

Transportation Most states do not transport kindergarten children on the same buses carrying older children. However, the same buses are used on a time schedule subsequent to the regular morning route and then again at mid-day (for morning and/or afternoon programs). For example, buses depositing children at an elementary school at 7.50 a.m. would then pick up kindergarten children and return to school by 8.30 a.m. or 8.45 a.m. The same buses would take the children home at mid-day. A similar schedule is used in the afternoon program with pickup right after lunch and delivery home either prior to or after the other children are taken home, depending upon the length of school day.

The expenses for transportation can be approximately figured at 24¢ per mile per classroom. This includes operating expense for the bus and wages for the driver. If a bus traveled 100 miles each day transporting kindergarten children, there would be an expense of \$24.00 per day; at 180 school days, this would be \$4320.00 per year per classroom unit for transportation.

Teachers The Certification Office of the State Department of Education reports that 432 teachers currently on file are certified for teaching kindergarten. A survey of teacher training institutions in the State indicates that approximately 450 new teachers will graduate this school year holding certification in kindergarten. If funding is made available for 10,000 kindergarten students and 44 students are considered one kindergarten unit, then only 230 teachers would be needed the first year.

Summary As an example, an allocation of \$3,500,000.00 could be used in the following manner for implementing kindergarten under Alternative Two (2) in the State of Mississippi:

230 teachers @ \$7,000.00 for salary	=	\$1,610,000.00
230 classrooms @ \$2,000.00 for equipment and supplies	=	460,000.00
230 buses (operating expenses) and drivers @ \$4,320	=	993,600.00
230 leased classrooms (if needed) @ \$1,000	=	230,000.00
1,800,000 snacks @ .115¢	=	<u>206,400.00</u>
TOTAL		\$3,500,000.00

Conclusion The 1974 Mississippi Legislature will once again debate the question of kindergartens in Mississippi. It seems evident from the review of literature presented herein that the position and status of kindergarten programs in the United States are very prominent. It is hopeful that this paper will contribute to a professional and reasonable decision concerning the establishment and implementation of kindergartens in Mississippi.

SELECTED BIBLIOGRAPHY

- Almy, Millie. "New Views on Intellectual Development in Early Childhood Education." *Intellectual Development. Another Look*. Washington, D. C.: Association for Supervision and Curriculum Development, 1964, p. 13.
- Altman, Karl. "Effects of Cooperative Response Acquisition on Social Behavior During Free Play." *Journal of Experimental Child Psychology*, XII (Dec., 1972), p. 287.
- Ames, Louise Bates, and Ilg, Frances L. *School Readiness*. New York: Harper and Row Publishers, 1972.
- Arkin, Sue, et al. Growth Patterns in First Grade Reading. Master's thesis, Boston University, 1964. Cited in Helen A. Murphy's "Foundations for Reading—Which Direction?" in *Kindergarten Challenges*, 1966. Lesley College Kindergarten Conference Proceedings. Cambridge, Mass.
- Berson, Minnie Perrin. *Kindergarten, Your Child's Big Step*. New York: Dutton and Company, Inc., 1959.
- Beyer, Evelyn. *Teaching Young Children*. New York: Pegasus Publishing Co., 1968.
- Biber, Barbara. "Emotional Needs of Young Deprived Children." *The Educational Digest*, XXX (January, 1968), pp. 15-18.
- Bloom, Benjamin S. *Stability and Change in Human Characteristics*. New York: John Wiley and Sons, Inc., 1964, pp. 88, 110.
- Borucki, Merle E. "Follow up Study of Social Adjustment of Elementary School Children Who Have Had Nursery School or Kindergarten Experience" as cited in *Research Relating to Children*, Bulletin No. 3, 1-T-1, 1956. Washington, D. C.: Children's Bureau, HEW.
- Burgess, Evangeline. *Values in Early Childhood Education*. Washington, D. C.: National Education Association, 1963.
- California Task Force. Report of the Task Force on Early Childhood Education (Sacramento, California. Wilson Riley, State Superintendent of Public Instruction, and the State Board of Education, November 21, 1971).
- Chamberlin, R. W., and Nader, P. R. "Relationships Between Nursery School Behavior Patterns and Late School Functioning." *American Journal of Orthopsychiatry*, XLI (July, 1971), p. 597-601.
- Cole, Kate. "Marchez Maneuvers with Montessori." *Mississippi Educational Advance*, LXIII (January, 1972), p. 11.
- Coleman, James S. et al. *Equality of Educational Opportunity*. Washington, D. C.: U. S. Department of Health, Education and Welfare, U. S. Government Printing Office, 1966.
- Combs, Arthur W. "Personality Theory and Its Implications for Curriculum Development." *Understanding the Young and His Curriculum*. Edited by B. C. Mills. New York: Macmillan and Co., 1972, p. 247.
- Conway, C. B., et. al. "A Study of Public and Private Kindergarten and Nonkindergarten Children in the Primary Grades." Vancouver, Canada. Educational Research Institute of British Columbia, January, 1968.
- De Hirsch, Katrina, Jansky, Jeannette Jefferson, and Langford, William S. *Predicting Reading Failure*. New York: Harper & Row, 1966, pp. vii, 92.
- Deutsch, Martin. "Nursery Education. The Influence of Social Programming on Early Development." *Journal of Nursery Education*, XVIII (April, 1963), p. 191.
- Dunworth, John. "Why Kindergartens?" *American Education*, IV (February, 1968), p. 22.
- Etaugh, Claire Falk, and Van Sickle, Douglas. "Discrimination of Stereomatic." *Child Development*, XLII (November, 1971), pp. 1580-82.
- Ferenden, V. E., and Jacobsen, S. "Early Identification of Learning Disabilities." *Journal of Learning Disabilities*, III (November, 1970), pp. 589-593.
- Flint, Betty M. "Need Kindergartens Be Too Late?" *Educational Theory*, XX, No. 4 (Fall, 1970), p. 425.
- Fuller, Elizabeth Mecham. *About the Kindergarten*, "What Research Says to the Teacher." Washington, D. C.: American Educational Research Association of the National Education Association, 1961.
- Gardner, R. C. "Kindergarten Education—Major Values and Benefits." *Tennessee Teacher*, XL (November, 1972), pp. 10-11.
- Geedy, Calder B. "The Introduction of a Kindergarten Program in a School System with Special Emphasis on the Development and Application of New Techniques to Determine its Effectiveness and Acceptance" as cited in *Research Relating to Children*, Bulletin No. 4, 4-V-2, Children's Bureau, HEW, Washington, D. C., May-September, 1956.
- Gray, Susan W., and Klaus, Rupert A. "The Early Training Project: A Seventh-Year Report." *Child Development*, XLI (December, 1970), pp. 909-924.
- Gutherie, James W. "What the Coleman Reanalysis Didn't Tell Us." *Saturday Review*, LV, No. 30 (July 22, 1972), p. 45.
- Haines, Leeman Everett. "The Effect of Kindergarten Experience Upon Academic Achievement in the

- Elementary School Grades." Unpublished Doctoral dissertation, The University of Connecticut, 1960.
- Haley, Elizabeth D.; Dolan, Ann E.; Katz, Mildred; and Mackin, Marjorie. "A Comparison of Scores of Kindergarten Children and Nonkindergarten Children in Specific Background Abilities at First-Grade Entrance" Unpublished Ed. M. Thesis, Boston University, 1957 Reported in *Research in Reading at the Primary Level*, Washington, D. C.: U. S. Department of Health, Education, and Welfare, Office of Education, 1963.
- Harr, Chester W. *Encyclopedia of Education Research*. New York: The Macmillan Co., 1960.
- Headly, Neith. *The Kindergarten: Its Place in the Program of Education*. New York: The Center for Applied Research in Education, Inc., 1965, pp. 17-40.
- Headly, Neith. *Education in the Kindergarten*. New York: Eastern Publishing Company, 1966.
- Heller, Ernest. "Early Childhood Education: A Sense of Urgency." *Instructor*, LXXXII (August, 1972), p. 17.
- Hymel, J. L., Jr. "Why Programs for Young Children?" *Today's Education*, LIX (April, 1970), pp. 34-36.
- Jencks, Christopher. *Inequality: A Reassessment of the Effect of Family and Schooling in America*. New York: Basic Books, Inc., 1972, pp. 89, 120.
- Larson, Marvin. "The Historical Antecedents of Early Childhood Education." *Educational Digest*, XXXVIII (November, 1972), pp. 20-23.
- Levin, Henry M. "The Coleman Report: What Difference Do Schools Make?" *Saturday Review*, LI, No. 1 (January 20, 1968), pp. 57, 58, 66, 67.
- Levin, Elizabeth. "The Real California Report: A New Approach to Education." *Phi Delta Kappan*, LIV, No. 3 (April 1973), pp. 558-559.
- Mason, Barbara. "Children Need Structure." *Instructor*, LXXII (October, 1972), pp. 74-75.
- Mason, Barbara. "A New Look in Kindergarten." *School and Community*, XXXIX (March, 1972), pp. 18-19.
- Meyers, Vest C. "Is It Worthwhile To Send Your Child to Kindergarten?" *Educational Method*, XV (April, 1963) pp. 388-39
- Mindess, Mary, and Keiher, Alice. "Review of Research Related to the Advantages of Kindergartens." *Childhood Education*, XLIII (May, 1967), pp. 505-512.
- Moon, Raymond, Moon, Robert, and Moore, Dennis. "The California Report: Early School for All?" *Phi Delta Kappan*, LIII (June, 1972), pp. 615-21
- Mosteller, Frederick and Moynihan, Daniel P. *On Equality of Educational Opportunity*. New York. Random House, 1972.
- Murphy, Helen A. "Foundations for Reading—Which Direction?" *Kindergarten Challenges*, Lesley College Kindergarten Conference Proceedings, Cambridge, Massachusetts, 1966.
- Pettonen, Ritva. "The Finnish Kindergarten." *Childhood Education*, XLI (January, 1965), p. 246.
- Pineault, Sister Candide. "A Study of the Effects of Kindergarten Experience on Vocabulary." Unpublished Doctoral dissertation, Cornell University, 1967, p. 95.
- Riles, Wilson. "When Should Schooling Begin?" *Phi Delta Kappan*, LIII (June, 1972), pp. 613-14.
- Shaw, Martha Luella. "The Subsequent Adjustment of First-Grade Children in Relation to Age at Entrance, Socio-Economic Status and Type of Pre-School Experience." Unpublished Doctoral dissertation, The Florida State University, 1957.
- Smith, Nila B. *Shall We Teach Formal Reading in the Kindergarten?* Washington, D. C.: Association for Childhood Education International, 1964, p. 62.
- Spodek, Bernard. "Needed: A New View of Kindergarten." *Childhood Education*, IL (January, 1973), pp. 191-97.
- Taylor, Vera C. "To Search But Not To Find: Further Observations on Early Childhood Education." *Phi Delta Kappan*, September, 1973, pp. 33-34.
- Trusel, Maurice. "The Effect of Kindergarten Experience on Social Readiness for First-Grade and the Effect of Kindergarten Experience Upon First-Grade Achievement in Reading and Numbers in the Williamsport, Pennsylvania, Public Schools." Unpublished Doctoral thesis, Pennsylvania State University, University Park, 1955.
- United States Public Health Service and Boston Department of Health and Hospitals. "Pre-School Visual Research Study" as cited in "Review of Research Related to the Advantages of Kindergarten" by Mary Mindess and Alice V. Keiher, *Childhood Education*, XLIII (May, 1967), pp. 505-12.
- Wann, Kenneth; Dorn, Miriam S.; and Liddle, Elizabeth. *Fostering Intellectual Development in Young Children*. New York. Bureau of Publications, Teachers College, Columbia University, 1962.
- Weiner, Lawrence. "They Spot Learning Problems Early: Screening Kindergarten Children." *Instructor*, LXXXII, no. 1 (January, 1973) pp. 108-109

Reading Begin" *Phi*
p. 610

Wyatt, Gertrude L. "Speech and Language Disorders in
Pre-School Children: A Preventive Approach." *Pedi-*
iatrics, XXXVI, No. 4 (October, 1965).



RESEARCH IN EDUCATION

Published by the Bureau of Educational Research, School
of Education, University, Mississippi

1965