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ABSTRACT

The 1992-93 analysis of the Kansas Chapter 1 evaluation results is described. In the 1992-93 school year, 100 percent (304) of Kansas districts participated in the Chapter 1 program. Approximately 7 percent of the student population participated in Chapter 1 programs, and 82 percent were in grades 1 through 6. A majority of these students were White (not Hispanic) (69%), but Blacks (18.6 percent), Hispanic Americans (9.6 percent), and other minority groups were also represented. Nearly 64 percent (\$24 million) of Chapter 1 funds were spent on reading and language-arts activities, with about \$9.8 million spent on mathematics. Expenditures for Chapter 1 summer programs increased in this school year. The statewide evaluation, which was conducted using multiple methods, supports the effectiveness of the Chapter 1 programs in Kansas. The average gains of Kansas students at most grade levels in both reading and mathematics were greater than would have been expected to occur without the intervention of Chapter 1 programs. Eighty-six percent of districts demonstrated gains in reading achievement, and 87 percent showed similar results in mathematics. An enclosure summarizes the evaluation results with 13 graphs. Eighteen tables and three figures present information in the body of the report. (SLD)

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Kansas Chapter 1 1992-1993 Evaluation

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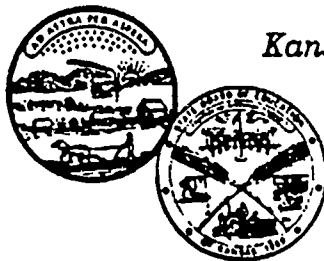
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UD030203

INTRODUCTION

P.L. 97-35, passed in 1981, amended Title I of the Elementary and Secondary Education Act and replaced it with Chapter 1 of the Education Consolidation and Improvement Act. Recognizing the special educational needs of children of low-income families, Chapter 1 continues to provide financial support to local education agencies for developing supplemental programs.

The assumptions behind Chapter 1 are 1) that the mean achievement level of economically disadvantaged students is significantly lower than that of nondisadvantaged students and 2) that educational programs which are designed especially for the disadvantaged and which supplement the regular education programs can make student achievement levels more equivalent. Years of test data prove the first assumption. The purpose of the Kansas Chapter 1 evaluation is to discover whether or not the second assumption is true in this state.

Even though many evaluation requirements were dropped, evaluation practices changed little when Chapter 1 replaced the Title I program. Kansas, like many states, continued to use the Title I Evaluation and Reporting System (TIERS) that previously had been required.

This document contains the Kansas Chapter 1 evaluation results. The first section describes activities carried out by the Kansas State Board of Education in administering Chapter 1; section two describes school district participation; section three identifies population characteristics; section four describes Chapter 1 activities; section five examines characteristics of Chapter 1 instruction; section six identifies Chapter 1 staff; section seven outlines Chapter 1 expenditures and per student costs; section eight speaks to Chapter 1 program impact; and section nine provides some conclusions drawn from the 1992-93 evaluation.

HIGHLIGHTS OF KANSAS CHAPTER 1 EVALUATION FOR 1992-93

- One hundred percent of the school districts, or 304, participated in the Chapter 1 program in 1992-93.
- Approximately 33,700 students, or 7.0 percent of the student population, participated in Chapter 1 programs, which is a slight decrease in percentage of participation from the previous year.
- Eighty-two percent of the students participating in Chapter 1 programs were in grades one through six.
- Approximately \$24 million, or 64 percent of the Chapter 1 expenditures, was spent on reading/language arts activities and \$9.8 million on mathematics. The percentage of funds expended for reading/language arts activities has remained approximately the same for the past six years.
- Salaries of 559 full-time equivalent reading/language arts teachers, 228 mathematics instructors, and 427 paraprofessionals were paid from Chapter 1 funds. These numbers represent a 7 percent increase in reading teachers, a 23 percent increase in mathematics teachers, and a 17 percent increase in paraprofessionals since 1991-92.
- Expenditures for Chapter 1 summer programs increased about 18 percent from \$741,081 in 1991-92 to \$871,155 in 1992-93. Most of this increase can be attributed to an increase in the State Chapter 1 allocation.
- The 1992-93 Kansas evaluation results continue to support the effectiveness of Chapter 1 programs. The average gains of Kansas students at most grade levels in both reading and mathematics were greater than would have been expected to occur without the intervention of Chapter 1 programs.
- Eighty-six percent of the school districts demonstrated gains in reading achievement, and 87 percent of the school districts had similar results in mathematics.

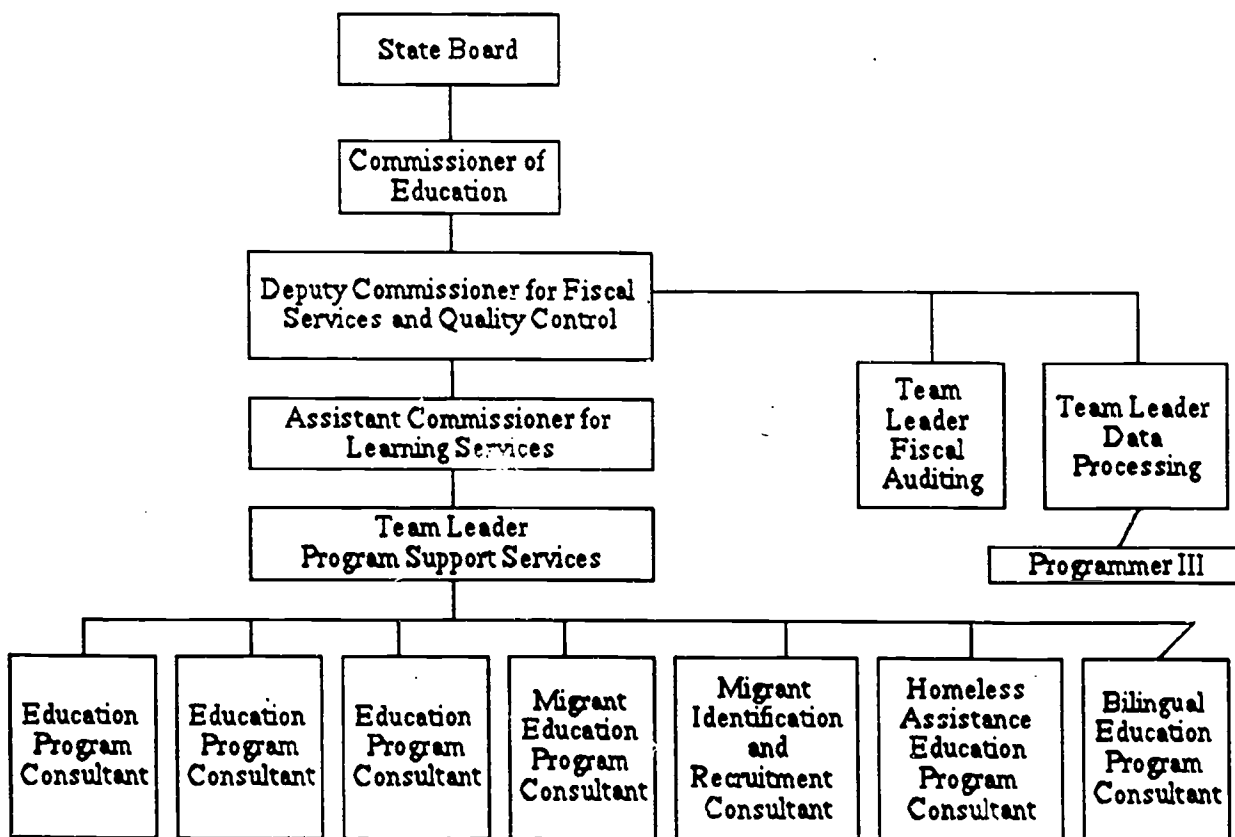
I. STATE BOARD OF EDUCATION ACTIVITIES

The Kansas State Board of Education is the entity in Kansas responsible for administering the Chapter 1 program. Its responsibilities include grant distribution, application approval, rule making and interpretation, monitoring, enforcement, technical assistance, information dissemination, fiscal management, and complaint resolution. During school year 1992-93, the State Board funded projects in 301 school districts during the regular school term and in 3 school districts operating only summer programs. The State Board also funded programs for neglected and delinquent children in nine State institutions and in the Kansas State Industrial Reformatory (KSIR) in Hutchinson.

On the Program Support Services Team, there are three education program consultants who have primary responsibility for the approval and monitoring of Chapter 1 projects. Three other program consultants on the team have limited responsibility for Chapter 1. During the year, State Chapter 1 staff monitored for compliance 86 of the 304 approved programs. Technical assistance was also provided to the districts visited.

The Program Support Services Team is responsible for the close coordination of all State Board teams involved with Chapter 1 activities. Auditors from certified public accountant (CPA) firms audited the applications of 304 districts and reported findings to the State Chapter 1 staff for review and action.

Organizational Chart of Kansas Chapter 1 Program



Effective January 7, 1991, the State Board of Education staff members were reorganized into teams which resulted in a flattening of the hierarchical structure of the agency. Chapter 1 staff became part of the Program Support Services Team which includes staff working in the areas of homeless, at risk, bilingual, migrant, Title II, Chapter 2, community service programs, and educational enhancement grants.

To ensure that the Kansas Chapter 1 program is as effective as possible in meeting the special educational needs of those educationally disadvantaged children who have the greatest need for assistance, State Chapter 1 staff conducted a number of training, dissemination, and technical assistance activities in school year 1992-93.

The Program Support Services Team utilized more than seventy days, conducting inservice sessions for Chapter 1 staff at the local level. Chapter 1 inservice courses for college credit were conducted through Emporia State University at Emporia and through Kansas State University at Junction City and Vermillion. Two summer seminars were also conducted at Emporia State University. Additional Chapter 1 staff development activities were conducted in Council Grove, Dodge City, Ellinwood, Garden City, Goodland, Great Bend, Greenbush, Halstead, Hutchinson, Independence, Paola, Topeka, and WaKeeney.

Staff from the Evaluation Technical Assistance Center in Denver provided workshops to assist districts in evaluation issues. These workshops were attended by 195 people representing 53 districts.

Regional and national conferences for State and local Chapter 1 personnel were held in Denver, Colorado; Kansas City, Missouri; and San Antonio, Texas for the purpose of providing technical assistance on program improvement issues.

The State staff distributed updates of the *Chapter 1 Policy Handbook* to assist local administrators in the operation and administration of their Chapter 1 programs. In six spring workshops at Chanute, Concordia, Dodge City, Hutchinson, Oakley, and Topeka, staff reviewed regulations, guidelines, end-of-year reports, funding, evaluation, and other Chapter 1 forms. These workshops were attended by 618 people, representing 287 school districts.

Profile summary evaluation information sheets containing state and district summary information - such as achievement gains by grades, cost per pupil, and number of participants - were returned to each district so that district results could be compared with the state averages.

II. DISTRICT PARTICIPATION IN CHAPTER 1

Participation in Chapter 1 included 100 percent of the state's total school districts during the 1992-93 school year. Summer term participation increased to eighty-four districts. Since 1988-89, unified school district (USD) participation in the regular term has increased by three USDs. Summer participation increased 9 percent from 1991-92 to 1992-93. These trends in participation are shown in Table 1.

Table 1
Number of USDs with Chapter 1 Programs

| | <u>1988-89</u> | <u>1989-90</u> | <u>1990-91</u> | <u>1991-92</u> | <u>1992-93</u> |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|
| Regular Term | 299 | 301 | 301 | 301 | 301 |
| Summer Term | 49 | 46 | 46 | 77 | 84 |
| Total Districts Participating* | 301 | 302 | 302 | 304 | 304 |

*Unduplicated count

III. CHAPTER 1 POPULATION CHARACTERISTICS

A. Number of Enrollments

During the 1992-93 regular term, 33,676 students received Chapter 1 services. This total is a 2.8 percent decrease from 1991-92. About 7 percent of all students enrolled in Kansas elementary and secondary schools participated in Chapter 1 services during the regular term. Public and nonpublic school participation is identified in Table 2.

Table 2
Chapter 1 Enrollments

| | <u>Total Regular Term Enrollment</u> | <u>Chapter 1 Regular Term Enrollment</u> | <u>Percent of Total</u> |
|-----------|--|--|---------------------------------|
| Public | 451,536 | 32,978 | 7.3 |
| Nonpublic | 29,304 | 688 | 2.4 |
| Totals | 480,840 | 33,676 | 7.0 |

B. Characteristics of Chapter 1 Students

In this section, the characteristics of Chapter 1 students are examined in terms of grade level, age, sex, and racial/ethnic distribution.

About 90 percent of Chapter 1 regular term students were in the sixth and lower grades. The largest percentages of Chapter 1 students were in grades 1 through 5. Nearly 9 percent of Chapter 1 students were in grades 7 through 9, and about 1 percent were in grades 10 through 12. Similar to national trends, these figures indicate that school districts were concentrating Chapter 1 services on the early identification and remediation of students. These data are presented in Table 3.

Table 3
Student Participation in Chapter 1 by Grade Level*
Regular Term

| <u>Grade Level</u> | <u>Public</u> | <u>Nonpublic</u> | <u>Total</u> | <u>Percent of Total Chapter 1 Students</u> |
|--------------------|---------------|------------------|--------------|--|
| PreK | 949 | 0 | 949 | 2.8 |
| K | 1,779 | 22 | 1,801 | 5.3 |
| 1 | 5,235 | 101 | 5,336 | 15.8 |
| 2 | 5,732 | 14 ^F | 5,877 | 17.5 |
| 3 | 5,077 | 120 | 5,197 | 15.4 |
| 4 | 4,425 | 97 | 4,522 | 13.4 |
| 5 | 3,897 | 86 | 3,983 | 11.8 |
| 6 | 2,577 | 67 | 2,644 | 7.9 |
| 7 | 1,295 | 42 | 1,337 | 4.0 |
| 8 | 1,086 | 10 | 1,096 | 3.3 |
| 9 | 576 | 8 | 584 | 1.7 |
| 10 | 205 | 0 | 205 | 0.6 |
| 11 | 96 | 0 | 96 | 0.3 |
| 12 | <u>49</u> | <u>0</u> | <u>49</u> | <u>0.2</u> |
| Total | 32,978 | 698 | 33,676 | 100.0 |

* Unduplicated count

Table 4 contains the racial/ethnic identity for Chapter 1 students. It can be seen that 18.6 percent of Chapter 1 participants were black, 69.0 percent were white, and 12.4 percent were members of other minority groups.

Table 4
Chapter 1 Student Participation by Racial/Ethnic Identity

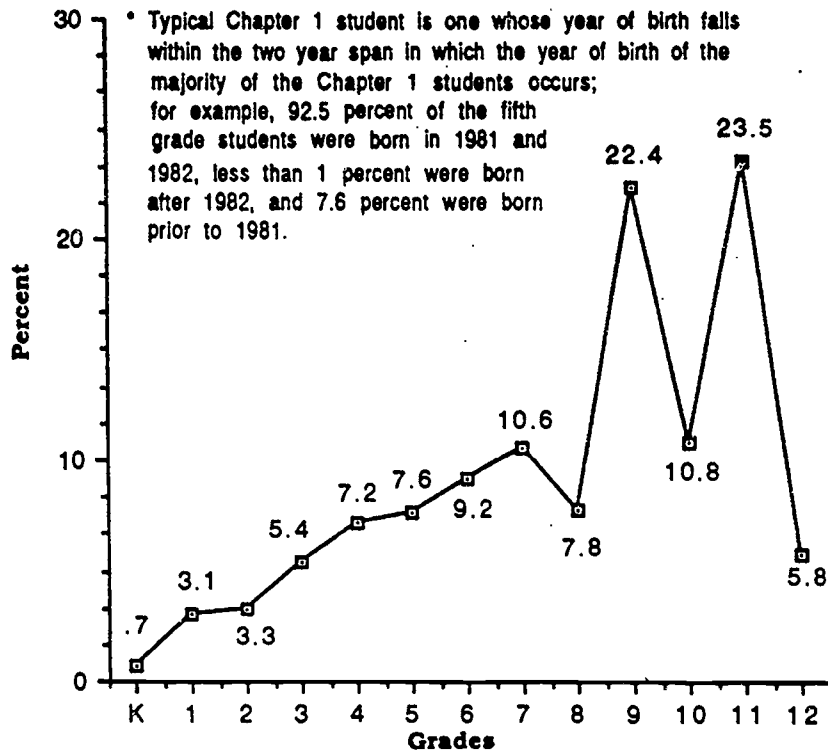
| | <u>Regular Term</u> | <u>Percent of Chapter 1 Enrollment</u> |
|---------------------------------|---------------------|--|
| American Indian, Alaskan Native | 397 | 1.2 |
| Asian, Pacific Islander | 549 | 1.6 |
| Black (Not Hispanic) | 6,277 | 18.6 |
| Hispanic | 3,219 | 9.6 |
| White (Not Hispanic) | <u>23,234</u> | <u>69.0</u> |
| Total | 33,676 | 100.0 |

More than one-half of the Chapter 1 participants during 1992-93 were male (55.0 percent). Females made up 45.0 percent of the Chapter 1 participation

with the highest percentage of females occurring in grades four, seven, and eleven (47.6, 46.8, and 52.9 percent, respectively).

As indicated in the following graph, larger percentages of Chapter 1 participants are older than the typical Chapter 1 student in grades five through eleven than in the lower grades.

Percent of Chapter 1 Students Older Than the Typical* Chapter 1 Student by Grade



IV. CHAPTER 1 ACTIVITIES

In Table 5 the number of students who participated in various Chapter 1 instructional activities and received support services in the regular term is displayed.

**Table 5
Student Participation in Chapter 1 by Activity***

| Instructional Activity | Regular Term | | | Percent of Total Chapter 1 Students |
|------------------------|--------------|-----------|--------|-------------------------------------|
| | Public | Nonpublic | Total | |
| Reading/Language Arts | 26,212 | 533 | 26,745 | 79.4 |
| Mathematics | 12,243 | 364 | 12,607 | 37.4 |
| Other | 915 | 0 | 915 | 2.7 |

**Table 5 (Continued)
Student Participation in Chapter 1 by Activity***

| <u>Support Services</u> | <u>Regular Term</u> | | | <u>Percent of Total Chapter 1 Students</u> |
|-------------------------|---------------------|------------------|--------------|--|
| | <u>Public</u> | <u>Nonpublic</u> | <u>Total</u> | |
| Guidance/Social Work | 1,712 | 82 | 1,794 | 5.3 |
| Speech Therapy/Other | 286 | 27 | 313 | 0.9 |

*Duplicate counts; students may participate in more than one activity

Over three-fourths of Chapter 1 students, or 26,745 were engaged in reading/language arts instructional activities. More than 37 percent of the students additionally (or exclusively) received mathematics instruction. About 6 percent received other instructional or support services, which included special testing, social work, counseling, and speech therapy.

V. CHARACTERISTICS OF CHAPTER 1 INSTRUCTION

A. Average Number of Hours per Week and Average Number of Weeks per Year of Chapter 1 Instruction

Table 6 indicates that students in the primary and intermediate grades on the average received slightly less instruction per week, but for a greater number of weeks than students in the upper grades. However, in terms of the average total number of hours of instruction per year, students in grades 10-12 in reading received on the average 81.2 hours of instruction while students in grades 1-3, 4-6, and 7-9 received 74.1, 75.9, and 76.3 hours, respectively. The average number of total hours of instruction in mathematics ranged from 72.1 (grades 10-12) to 74.1 (grades 7-9).

**Table 6
Average Number of Hours and Weeks of Instruction**

| <u>Grades</u> | <u>Reading</u> | | <u>Mathematics</u> | |
|---------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | <u>Hours per Week</u> | <u>Weeks per Year</u> | <u>Hours per Week</u> | <u>Weeks per Year</u> |
| 1-3 | 2.2 | 34.6 | 2.1 | 35.2 |
| 4-6 | 2.2 | 34.5 | 2.1 | 35.2 |
| 7-9 | 2.5 | 30.5 | 2.6 | 28.5 |
| 10-12 | 3.3 | 24.6 | 3.4 | 21.2 |

B. Average Number of Participants per Instructor

As displayed in Table 7, the average number of participants per instructor per session increased from the lower grades to the higher grades in both reading and mathematics.

Table 7
Average Number of Participants per Instructor per Session

| <u>Grades</u> | <u>Reading</u> | <u>Mathematics</u> |
|---------------|----------------|--------------------|
| 1-3 | 4.4 | 4.5 |
| 4-6 | 5.0 | 5.8 |
| 7-9 | 8.4 | 10.9 |
| 10-12 | 17.0 | 21.0 |

VI. CHAPTER 1 STAFF

Table 8 shows that about 4.1 percent of the regular term full-time equivalent staff members paid by Chapter 1 were in administrative or clerical positions and that approximately 85 percent of the Chapter 1 paid staff provided direct instruction. The total number of Chapter 1 staff reported in 1992-93 (1,422.4) is an increase of 13.7 percent from the number of staff members paid by Chapter 1 in the previous year (1,251.1).

Table 8
Funded Chapter 1 Personnel

| | Full-Time Equivalency | |
|-------------------------------|-----------------------|-------------------------------|
| | <u>Regular Term</u> | <u>Percent of Total Staff</u> |
| Administrative Staff | 34.0 | 2.4 |
| Clerical or Secretarial | 23.8 | 1.7 |
| Reading/Language Arts | 559.7 | 39.3 |
| Mathematics Teachers | 228.0 | 16.0 |
| Curriculum Specialists | 8.1 | 0.6 |
| Providers of Support Services | 27.1 | 1.9 |
| Teacher Aides | 427.2 | 30.0 |
| Others | <u>114.5</u> | <u>8.0</u> |
| Total | 1,422.4 | 99.9* |

*Does not total 100 percent due to rounding

VII. CHAPTER 1 EXPENDITURES

Chapter 1 expenditures for reading in 1992-93 totaled approximately \$24 million, or 64 percent of the funds used. Per student costs during the regular term varied by type of services from a high of \$1,278 for other instructional and support services to a low of \$781 for mathematics instruction as indicated in Table 9 on page 8.

Table 9
Chapter 1 Expenditures by Subject Area.

| Subject | Total Expenditure | Regular Term | |
|--|--------------------------|---------------------------|---------------------------------|
| | | Number of Students | Average Cost per Student |
| Reading/Language Arts | \$24,324,772 | 26,745 | \$ 910 |
| Mathematics | 9,849,007 | 12,607 | 781 |
| Other Instructional and Support Services | <u>3,863,183</u> | <u>3,022</u> | <u>1,278</u> |
| Total | \$38,036,962* | 42,374** | \$ 838 |

*Does not include summer term expenditures

**Unduplicated count

A comparison of expenditures for the past five years indicates only a slight change in percentage of funds spent for reading, mathematics, or other subjects during the regular school term. Table 10 shows that there has been an increase in the amount spent for reading programs in 1992-93 over the preceding years. The amount of money spent on summer programs has increased from \$454,552 in 1988-89 to \$871,155 in 1992-93.

Table 10
Comparison of Chapter 1 Expenditures

| Subject | 1988-89 | 1989-90 | 1990-91 | 1991-92 | 1992-93 |
|-----------------------|----------------------|---------------------|---------------------|---------------------|---------------------|
| Reading/Language Arts | \$17,263,848 | \$17,690,345 | \$18,983,593 | \$21,133,803 | \$24,324,772 |
| Mathematics | 6,653,953 | 6,385,150 | 7,864,464 | 8,832,246 | 9,849,007 |
| Other | 2,276,844 | 1,884,979 | 3,153,364 | 3,943,843 | 3,863,183 |
| Regular Term Total | 26,194,645 | 25,960,474 | 30,001,421 | 33,909,892 | 38,036,962 |
| Summer Term Programs* | <u>454,552</u> | <u>466,787</u> | <u>486,451</u> | <u>741,081</u> | <u>871,155</u> |
| Total | \$26,649,197, | \$26,427,261 | \$30,487,872 | \$34,650,973 | \$38,908,117 |

*Cost of summer term programs is included in this table to clarify total expenditures. Additional information pertaining to summer programs is not included because no pre- and posttests were given. See page 16 of report.

Expenses for such activities as staff inservice, parent advisory councils, parent involvement, testing, and CPA audits are included in the appropriate subject matter expenditures; e.g., the cost of inservice for regular term language arts instructors is contained in the total expenditures for reading/language arts in Table 9. Chapter 1 provided funds for inservice activities for 1,503 non-Chapter 1 and 1,309 Chapter 1 staff members and for the involvement of approximately 3,352 teachers and 6,318 parents in the design and implementation of Chapter 1 programs. Table 11 indicates the dollar amounts which were spent for inservice and for parent/teacher involvement in the design and implementation of Chapter 1 programs. School districts also reported spending approximately \$205,447 of local and/or Chapter 1 funds for A-128 CPA audits.

Table II
Expenditures for Inservice and Parent/Teacher Involvement

| | |
|----------------------------|---------------------|
| | <u>Regular Term</u> |
| Staff Inservice | \$400,241 |
| Parent/Teacher Involvement | <u>371,254</u> |
| | \$771,495 |

VIII. CHAPTER 1 IMPACT

A. Regular Term

The current Federal regulations provide that the State education agency conduct an evaluation of the Chapter 1 programs in the state at least once every two years and make public the results of that evaluation. The State education agency is also required to collect data annually on race, age, gender, and the number of children served by grade level under the Chapter 1 programs in the state.

In order to meet the above requirements, local education agencies are required to complete an annual evaluation report consisting of general program information and student testing results from each Chapter 1 attendance center. The evaluation information received from the reporting districts is aggregated to obtain statewide totals before reporting the results to the U.S. Department of Education. Included in the data are only the scores of those students for whom the local education agencies reported a pretest and a posttest, with both tests having been administered within two weeks of the test publishers' norming period midpoint dates.

Beginning with the 1989-90 school year, unified school districts participating in Chapter 1 were required to administer testing on an annual basis in their evaluation process. The Kansas State Board of Education requested that districts test on a spring to spring basis. In past years, school districts were allowed several options in administering pre- and posttests in the evaluation of their Chapter 1 programs, i.e., fall to spring, spring to spring, fall to fall, and midyear. In 1992-93, one school district elected to test annually from fall to fall.

Chapter 1 of Title I identifies the purpose of Chapter 1 as improving achievement in basic and more advanced skills, and requires local education agencies to specify desired outcomes in terms of basic and more advanced skills and to evaluate performance and progress in both skill areas. More advanced skills are defined as "skills including reasoning, analysis, interpretation, problem-solving and decision making as they relate to the particular subjects in which instruction is provided." To measure more advanced skills, school districts were allowed to use a subtest of the test used for measuring basic skills; specifically, for reading a subtest measuring reading comprehension and for mathematics, a subtest measuring problem solving could be used.

1. Tests Used to Measure Impact

Virtually all school districts use a nationally normed standardized achievement test to evaluate the effectiveness of their Chapter 1 programs. Districts have been advised by the Chapter 1 staff of the Kansas State Board of Education to select a test based on the best fit between the instructional content of the Chapter 1 program and the content of the tests. Although the choice of test varies somewhat by grade level, 81 percent of the Chapter 1 reading students were tested with three tests: the Iowa Tests of Basic Skills (32.8 percent), the Comprehensive Tests of Basic Skills (38.4 percent), and the Stanford Achievement Test (10.2 percent); and 90 percent of the Chapter 1 mathematics students were tested with three tests: the Comprehensive Tests of Basic Skills (47.9 percent), the Iowa Tests of Basic Skills (32.3 percent), and the California Achievement Test (10.3 percent). The reading comprehension and math problem-solving subtests for each of these tests listed above were used in almost the same proportion for measuring more advanced skills.

2. Normal Curve Equivalent (NCE) Gains

The Chapter 1 evaluation system employs an NCE scoring system to measure student achievement levels and student gains. NCE scores have some of the same characteristics as percentile scores. Percentile scale points cluster around the midpoint of 50 because of normal curve distribution with points further apart at both ends. Both the percentile and normal curve equivalent scales have "1" at the low end, "50" in the middle, and "99" at the high end; however, the spacing is divided equally between each point in the Normal Curve Equivalent scale.

Student growth in Chapter 1 programs is reported as changes in NCE scores from pretest to posttest. In general, NCE gains can be categorized as positive, zero, or negative. A positive NCE gain represents growth over and above that which would be expected from participation in regular classroom instruction alone. A zero NCE gain represents growth that is about the same as would be expected from participation in regular classroom instruction alone. A negative NCE gain indicates that achievement is less than would be expected from participation in regular classroom instruction alone.

The following tables report average NCE score gains based on spring to spring testing for basic skills and advanced skills in both reading and mathematics.

Reading

Table 12
Average NCE Score Gains for Reading/Language Arts - Basic Skills
1992-93

| <u>Grade</u> | <u>Number of Students</u> | <u>Average NCE Pretest Scores</u> | <u>Average NCE Score Gains</u> |
|--------------|---------------------------|-----------------------------------|--------------------------------|
| 1 | 1,043 | 31.9 | 12.0 |
| 2 | 3,670 | 31.8 | 5.4 |
| 3 | 3,462 | 30.9 | 5.7 |
| 4 | 2,933 | 32.1 | 3.9 |

Reading

Table 12 (continued)

Average NCE Score Gains for Reading/Language Arts - Basic Skills
1992-93

| <u>Grade</u> | <u>Number of Students</u> | <u>Average NCE Pretest Scores</u> | <u>Average NCE Score Gains</u> |
|--------------|---------------------------|-----------------------------------|--------------------------------|
| 5 | 2,589 | 31.1 | 4.6 |
| 6 | 1,585 | 31.2 | 3.4 |
| 7 | 887 | 31.3 | 5.5 |
| 8 | 642 | 32.7 | 2.6 |
| 9 | 251 | 29.1 | 1.8 |
| 10 | 46 | 35.4 | 2.9 |
| 11 | 22 | 31.5 | 6.2 |
| 12 | <u>12</u> | <u>31.7</u> | <u>4.5</u> |
| Total Tested | 17,142 | 31.6 | 5.5 |

Table 13

Average NCE Score Gains for Reading/Language Arts - Advanced Skills
1992-93

| <u>Grade</u> | <u>Number of Students</u> | <u>Average NCE Pretest Scores</u> | <u>Average NCE Score Gains</u> |
|--------------|---------------------------|-----------------------------------|--------------------------------|
| 1 | 792 | 32.5 | 10.5 |
| 2 | 3,660 | 30.6 | 6.5 |
| 3 | 3,477 | 29.5 | 7.5 |
| 4 | 2,930 | 31.4 | 5.0 |
| 5 | 2,589 | 30.5 | 5.8 |
| 6 | 1,592 | 31.3 | 4.2 |
| 7 | 883 | 31.0 | 6.9 |
| 8 | 638 | 32.9 | 3.1 |
| 9 | 250 | 27.4 | 2.3 |
| 10 | 45 | 36.4 | 4.4 |
| 11 | 22 | 35.0 | 3.0 |
| 12 | <u>12</u> | <u>41.3</u> | <u>7.3</u> |
| Total Tested | 16,890 | 30.6 | 6.2 |

Mathematics

Table 14
Average NCE Score Gains for Mathematics - Basic Skills
1992-93

| <u>Grade</u> | <u>Number of Students</u> | <u>Average NCE Pretest Scores</u> | <u>Average NCE Score Gains</u> |
|--------------|---------------------------|-----------------------------------|--------------------------------|
| 1 | 378 | 27.5 | 20.6 |
| 2 | 1,359 | 30.6 | 12.0 |
| 3 | 1,443 | 32.4 | 5.5 |
| 4 | 1,789 | 30.9 | 7.2 |
| 5 | 1,571 | 31.3 | 8.1 |
| 6 | 939 | 32.4 | 5.4 |
| 7 | 587 | 29.7 | 8.7 |
| 8 | 449 | 34.6 | 4.5 |
| 9 | 183 | 33.8 | 2.4 |
| 10 | 11 | 38.6 | -1.5 |
| 11 | 4 | 39.8 | 10.0 |
| 12 | 0 | = | = |
| Total Tested | 8,713 | 31.4 | 8.1 |

Table 15
Average NCE Score Gains for Mathematics - Advanced Skills
1992-93

| <u>Grade</u> | <u>Number of Students</u> | <u>Average NCE Pretest Scores</u> | <u>Average NCE Score Gains</u> |
|--------------|---------------------------|-----------------------------------|--------------------------------|
| 1 | 271 | 24.2 | 22.3 |
| 2 | 1,264 | 32.9 | 9.1 |
| 3 | 1,441 | 31.5 | 5.7 |
| 4 | 1,781 | 30.8 | 7.4 |
| 5 | 1,568 | 31.3 | 7.5 |
| 6 | 931 | 31.3 | 5.2 |
| 7 | 591 | 30.1 | 8.7 |
| 8 | 447 | 35.2 | 4.1 |
| 9 | 185 | 30.5 | 2.6 |
| 10 | 10 | 35.1 | 1.4 |
| 11 | 4 | 35.8 | 19.0 |
| 12 | 0 | = | = |
| Total Tested | 8,493 | 31.4 | 7.4 |

A comparison of the achievement of nonpublic and public school participants was conducted and reflected few differences in either the initial level of performance or the size of gain. Those differences noted may well have been attributable to the fact that relatively few nonpublic

students were served, and thus they did not provide a stable basis for comparison at most grades.

Differences between females and males in either the initial performance level or in size of gain were not statistically significant. This information is presented in Table 16.

Table 16
Average Chapter 1 Female/Male Performance
Basic Skills 1992-93

| Grade | Average Pretest | Female Average Gain | Number of Students | Average Pretest | Male Average Gain | Number of Students |
|--------------------|--------------------|---------------------------|-----------------------|--------------------|-------------------------|-----------------------|
| Reading | | | | | | |
| 1 | 32.7 | 12.9 | 411 | 31.3 | 11.5 | 632 |
| 2 | 32.1 | 5.8 | 1,581 | 31.6 | 5.2 | 2,088 |
| 3 | 31.3 | 5.4 | 1,478 | 30.7 | 5.9 | 1,984 |
| 4 | 32.4 | 4.2 | 1,345 | 31.8 | 3.6 | 1,588 |
| 5 | 31.8 | 4.3 | 1,130 | 30.6 | 4.8 | 1,453 |
| 6 | 32.0 | 2.9 | 725 | 30.5 | 3.7 | 860 |
| 7 | 32.0 | 5.3 | 412 | 30.6 | 5.7 | 475 |
| 8 | 32.6 | 2.7 | 287 | 32.8 | 2.5 | 355 |
| Mathematics | | | | | | |
| 1 | 26.8 | 21.2 | 154 | 28.4 | 20.2 | 224 |
| 2 | 30.7 | 12.8 | 679 | 30.4 | 11.6 | 680 |
| 3 | 32.3 | 5.5 | 718 | 32.4 | 5.4 | 725 |
| 4 | 31.8 | 7.5 | 900 | 30.0 | 7.0 | 889 |
| 5 | 32.1 | 8.6 | 758 | 30.7 | 7.5 | 804 |
| 6 | 34.0 | 5.8 | 453 | 31.0 | 4.8 | 484 |
| 7 | 30.7 | 8.4 | 295 | 28.8 | 8.9 | 292 |
| 8 | 36.4 | 3.0 | 207 | 33.1 | 5.8 | 242 |

The majority of school districts reported positive NCE gains in basic skills (92.5 percent) and advanced skills (94.6 percent) and both basic and advanced skills (89.5 percent) in reading. In mathematics, 91.3 percent of the districts reported positive scores in basic skills, 93.4 percent in advanced skills, and 87.4 percent in both basic and advanced skills.

Table 17 provides information about average NCE scores over a two-year period (sustained effects) by grade level and subject. The sustained effects results are based on students who participated in Chapter 1 in two continuous years, and thus students who "graduated out" of Chapter 1 are not included. Based on data from the nationally conducted Sustaining Effects Study, it is known that students who remain in Chapter 1 year after year tend to be very low-performing and only make slight improvements in their relative standing over time.

Table 17
Average NCE Scores of Kansas Chapter 1
Students for More Than One Year of Participation
Spring 1991, 1992, and 1993

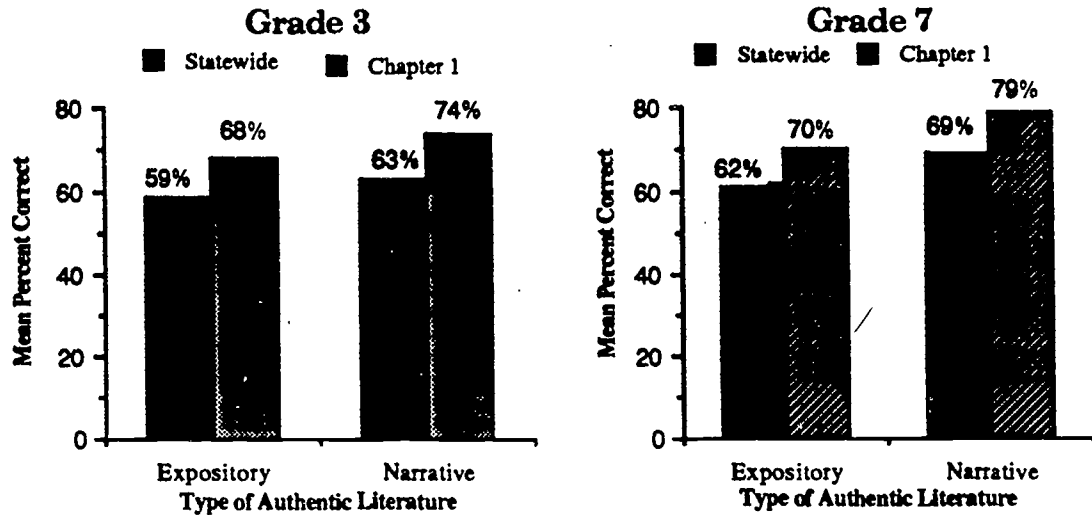
| <u>Grade</u> <u>in 1992-93</u> | <u>Number of</u> <u>Students</u> | <u>Spring 1991</u> | <u>Spring 1992</u> | <u>Spring 1993</u> |
|--|-------------------------------------|--------------------|--------------------|--------------------|
| <u>Reading (Basic Skills)</u> | | | | |
| 2 | 366 | 29.2 | 33.5 | 33.4 |
| 3 | 1,112 | 31.6 | 29.6 | 33.9 |
| 4 | 1,028 | 30.8 | 30.7 | 32.6 |
| 5 | 1,012 | 30.9 | 29.6 | 32.8 |
| 6 | 557 | 31.4 | 31.1 | 32.6 |
| 7 | 424 | 33.3 | 30.7 | 35.3 |
| 8 | 290 | 32.1 | 33.3 | 34.0 |
| <u>Mathematics (Basic Skills)</u> | | | | |
| 2 | 132 | 23.3 | 30.0 | 37.7 |
| 3 | 297 | 29.4 | 30.9 | 31.9 |
| 4 | 448 | 32.4 | 29.9 | 33.0 |
| 5 | 527 | 29.9 | 32.4 | 37.3 |
| 6 | 306 | 31.5 | 32.8 | 35.1 |
| 7 | 277 | 33.9 | 29.2 | 37.8 |
| 8 | 188 | 34.6 | 38.1 | 41.3 |

3. State Assessments

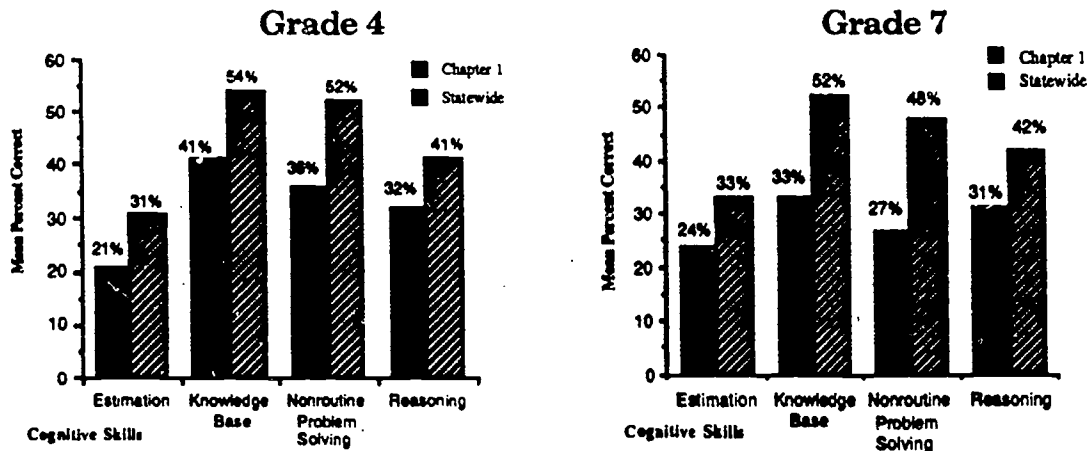
The performance of Chapter 1 students was compared to the performance of all students statewide on the Kansas Mathematics Assessment for grades four and seven and on the Kansas Reading Assessment for grades three and seven. Tenth grade students also were given these assessments but the number of Chapter 1 students at that grade level was too small to be considered. The state assessments differ from the traditional norm-referenced, standardized test in that the assessments contain multiple choice, multiple mark, and open-ended performance questions. The assessments focus on higher order thinking processes by asking students to explain how they might proceed through a problem as well as asking for correct answers.

As indicated in the following graphs, Chapter 1 students performed better in reading comprehension than they did in mathematics when compared to all students who participated in the assessments. Chapter 1 students in Kansas tended to perform better on the narrative forms of authentic literature as did the statewide population of students. In mathematics, the performance gap between all students and Chapter 1 students was greatest in nonroutine problem solving. The data given refers to mean percent of answers that were correct.

Kansas Reading Assessment Spring 1993 Reading Comprehension



Kansas Mathematics Assessment Spring 1993



4. Program Improvement

Federal regulations require that Chapter 1 schools that do not show overall positive student achievement gains as measured by norm-referenced tests must develop and implement plans to improve Chapter 1 projects in those schools. In Kansas, if the total aggregate achievement of the participating students in a school is zero or a negative score or if desired outcomes are not met, a program improvement plan is required.

Based on achievement scores for the 1992-93 school year, 47 school districts in Kansas required 75 school buildings to submit program improvement plans, which is approximately 15 percent of the districts and 10 percent of the buildings offering Chapter 1 services. According to most recent studies, nationally about 26 percent of Chapter 1 schools qualify for Chapter 1 Program Improvement.

If positive student achievement gains are not attained in one or more of the four skill areas of basic reading, advanced reading, basic mathematics, and advanced mathematics, a building may be required to submit a program improvement plan. Of the 75 buildings, 36 or 48 percent were designated in one area, 32 or 42.7 percent in two areas, 5 or 6.7 percent in three areas, and 2 or 2.7 percent in all four areas.

Table 18
Program Improvement Plans
by Skill Area and Number of Buildings

| <u>Skill Area</u> | <u>No. of Buildings</u> | <u>Percent</u> |
|--|-------------------------|----------------|
| Basic reading | 17 | 22.7 |
| Advanced reading | 8 | 10.7 |
| Basic reading and advanced reading | 21 | 28.0 |
| Basic math | 4 | 5.3 |
| Advanced math | 7 | 9.3 |
| Basic math and advanced math | 10 | 13.3 |
| Basic reading and advanced math | 1 | 1.3 |
| Basic reading, basic math, and advanced math | 3 | 4.0 |
| Basic reading, advanced reading, and basic math | 2 | 2.7 |
| Basic reading, advanced reading, basic math, and advanced math | 2 | 2.7 |
| Total | 75 | 100.0 |

Additional analysis indicates that of the 75 buildings, 46 or 61.3 percent showed a need in basic reading, 33 or 44.0 percent in advanced reading, 21 or 28.0 percent in basic math, and 23 or 30.7 percent in advanced math.

Of the 47 districts and 75 buildings requiring program improvement plans in 1992-93, 9 districts and 16 buildings were repeaters from the previous year's program improvement initiative. Four districts with nine attendance centers qualified for joint program improvement.

B. Summer Term

Because the majority of summer term participants spent less than thirty hours in Chapter 1 during a period of just four to six weeks, it was impossible to assess the impact of the summer term with pre- and posttest scores. Each student's teacher was asked to describe the student's progress, using a four-point scale, in each of six areas for reading/language arts and six areas for mathematics. The results were teacher opinion only and will not be described in this report, however they are available for review in the office of the Program Support Services Team.

IX. CONCLUSIONS

Approximately 7 percent of all Kansas students participated in Chapter 1 in school year 1992-93. Participants were selected through a needs assessment process which identified students most in need of Chapter 1 services. Reading/language arts and mathematics were the subject areas stressed in Chapter 1. Support services were offered when these services were components of a comprehensive program and when they contributed directly to student success in an instructional program.

When average NCE gains for 1992-93 are compared to the size of gains demonstrated in previous years of Chapter 1 participation since annual spring testing became a requirement in 1989-90, the results continue to support the effectiveness of Chapter 1 programs. Eighty-six percent of the school districts with Chapter 1 reading programs and 87 percent of the districts with Chapter 1 mathematics programs demonstrated program effectiveness in that their achievement gains were larger than would have been expected to occur without the intervention of Chapter 1 programs. Evaluation findings indicate apparent greater effectiveness in the primary grades. This finding replicates national results over many years.

Strategic Directions for Kansas Education

The Kansas State Board of Education is charged with the general supervision of public education and other educational interests in the state. While clearly acknowledging the role and importance of local control, the State Board of Education has the responsibility to provide direction and leadership for the structuring of all state educational institutions under its jurisdiction.

The beginning place for determining the mission for the Kansas State Board of Education is the assumption that all Kansas citizens must be involved in their own learning and the learning of others. It is the combined effort of family, school, and community that makes possible the development of a high quality of life. It is the parent who is the first "teacher" of children. As we grow older, we learn that the school, the workplace, and the community support our lifelong learning and our training and retraining. The Board recognizes the responsibility it holds for Kansas educational systems and promoting quality education programs. The mission for Kansas education is:

To prepare each person with the living, learning, and working skills and values necessary for caring, productive, and fulfilling participation in our evolving, global society.

We believe that the strategic directions for the structuring of Kansas education must be organized to:

- create learning communities
- develop and extend resources for parenting programs and early childhood education
- expand learner-outcome curriculum and learner-focused instruction
- provide inclusive learning environments
- strengthen involvement of business and industry in education
- provide quality staff and organizational development.



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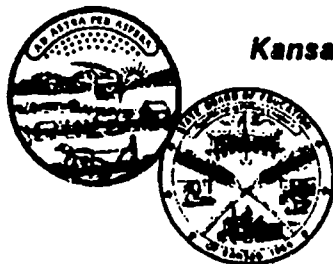
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SUMMARY OF KANSAS CHAPTER 1 EVALUATION 1992-1993



Kansas State Board of Education
Kansas State Education Building
120 SE 10th Ave., Topeka, Kansas 66612-1182

February 8, 1994

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INTRODUCTION

The purpose of Chapter 1 is to improve the educational opportunities of educationally deprived children by helping these children -

- succeed in the regular school program,
- attain grade-level proficiency, and
- improve achievement in basic and advanced skills.

Thus the potential for future failure in and dropping out of school is reduced.

The information provided in this document attempts to answer three basic questions about the Chapter 1 program in Kansas: What were the student gains from the program, who participated in the program, and how much did it cost?

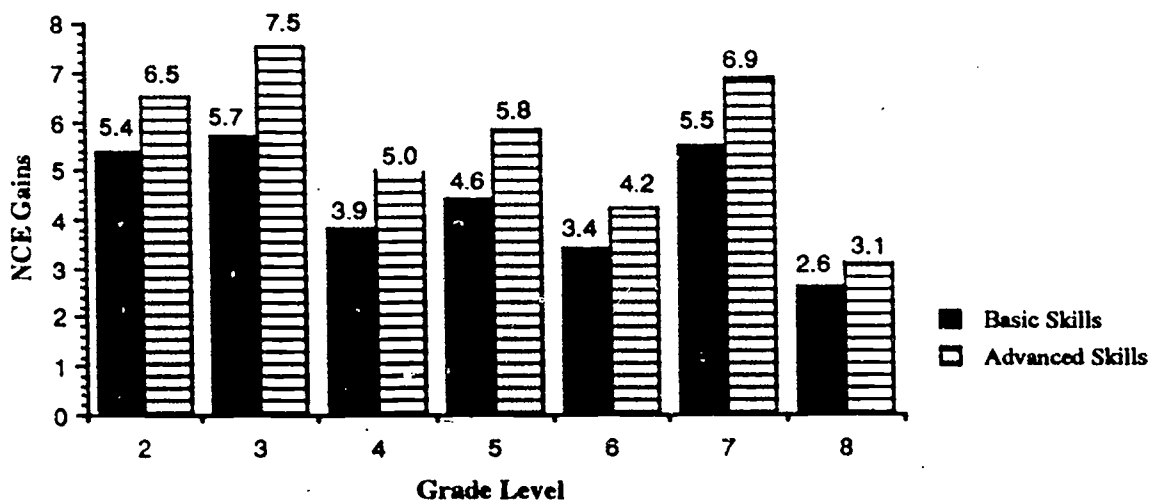
STUDENT AND PROGRAM OUTCOMES

Test scores in 1992-93 indicate that students receiving Chapter 1 intervention have gained in basic and advanced reading and mathematics skills.

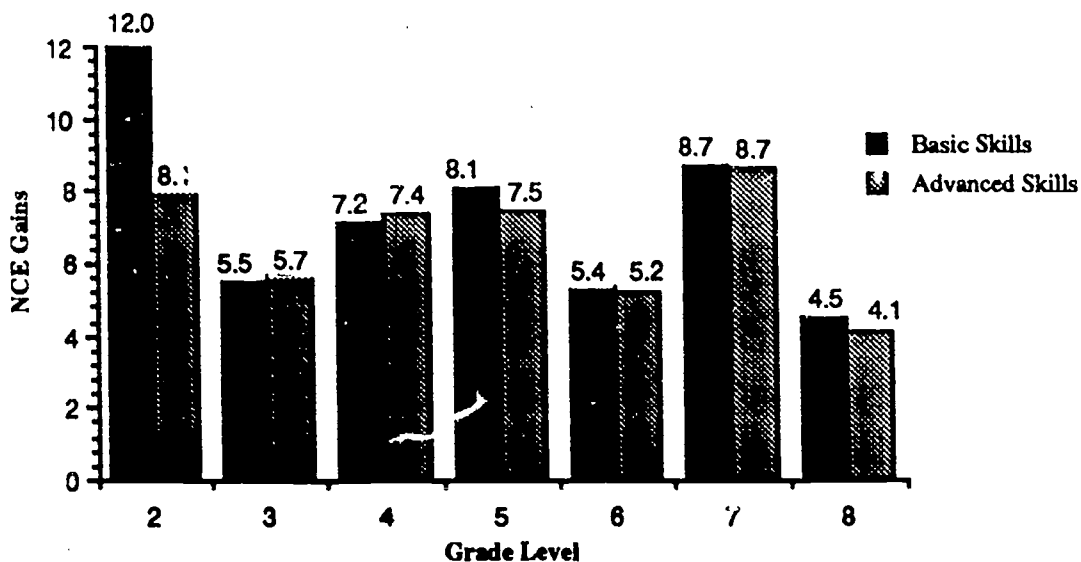
To evaluate the effectiveness and impact of Chapter 1 instruction, each unified school district uses standardized tests to measure with a pretest and a posttest the progress a student has made in a year. Differences in test scores are reported in normal curve equivalent (NCE) scores.

The NCE system measures achievement gains that can be attributed to the supplemental instruction provided by Chapter 1. Average gains in reading and mathematics are depicted in the following charts.

**1992-93 Gains in Reading
(NCE Gains in Basic and Advanced Skills)**



**1992-93 Gains in Mathematics
(NCE Gains in Basic and Advanced Skills)**



Kansas average NCE gains for Grades 2 through 12 exceeded the latest national results in all four skill areas as follows:

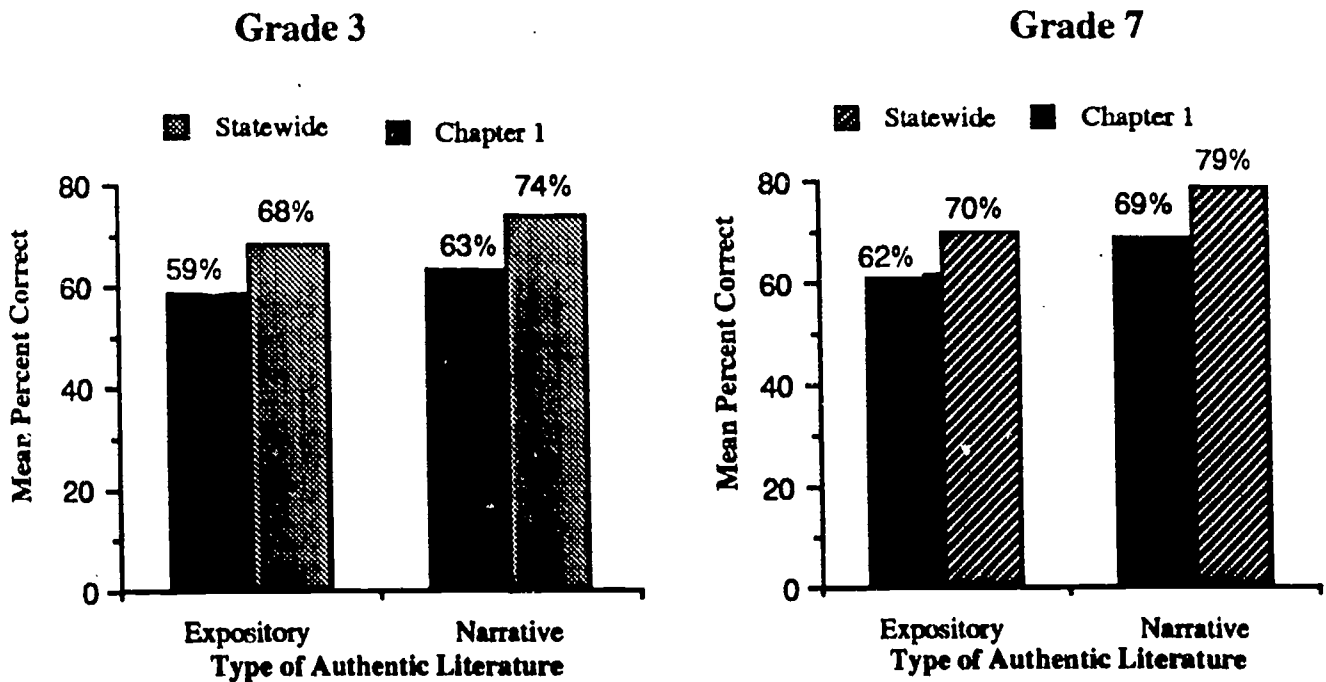
Average NCE Gain Results

| | <u>National</u> | <u>Kansas</u> |
|----------------------|-----------------|---------------|
| Basic Reading | 3.5 | 5.5 |
| Advanced Reading | 3.4 | 6.2 |
| Basic Mathematics | 4.9 | 8.1 |
| Advanced Mathematics | 2.8 | 7.4 |

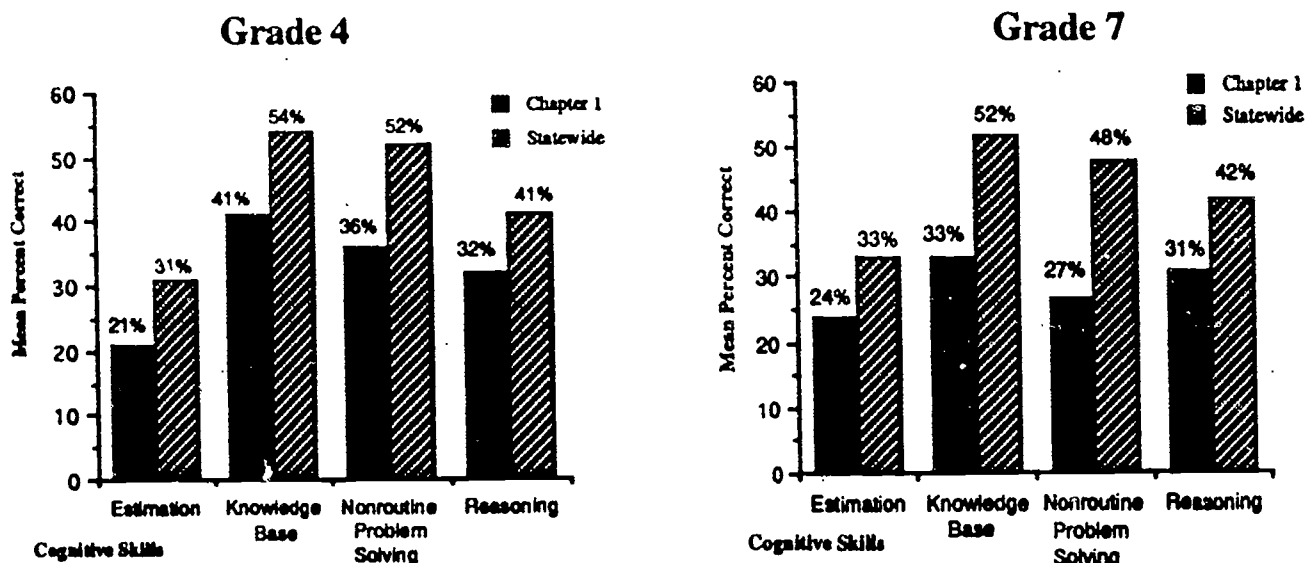
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Kansas Reading Assessment Spring 1993 Reading Comprehension



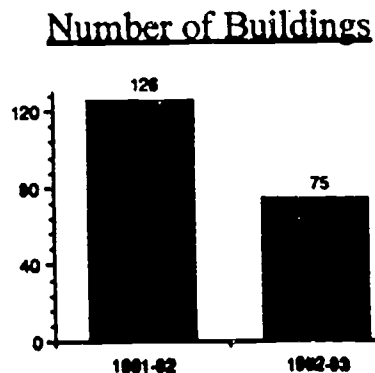
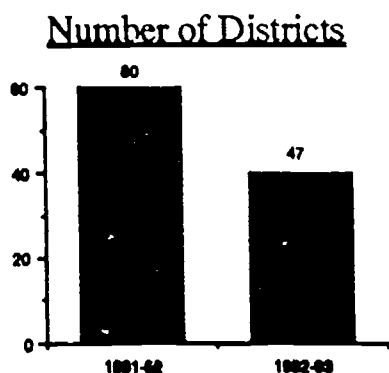
Kansas Mathematics Assessment Spring 1993



PROGRAM IMPROVEMENT

Chapter 1 schools that do not show overall positive student achievement gains (average NCE gain score greater than zero) are required to develop and implement program improvement plans.

Number of School Districts and Buildings Qualifying for Program Improvement in 1991-92 and 1992-93



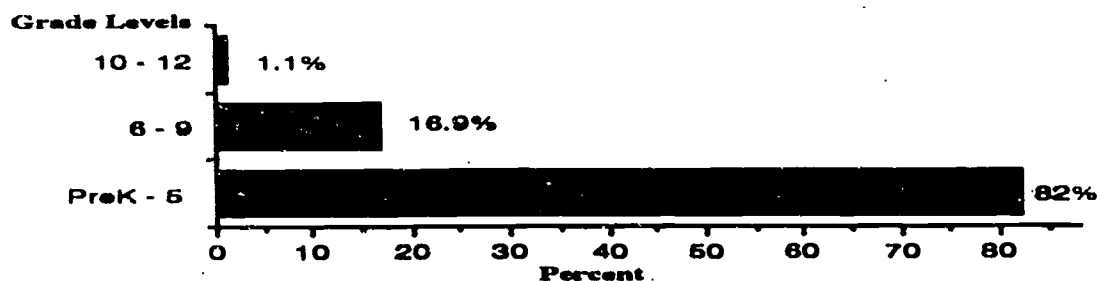
The number of school districts on Chapter 1 Program Improvement in 1992-93 decreased 22 percent compared to 1991-92 data. The number of buildings in 1992-93 decreased 40 percent from 1991-92. In Kansas, approximately 10 percent of the buildings offering Chapter 1 services qualified for Chapter 1 Program Improvement compared to the most recent national average of 26 percent.

Thirty-five school districts had one building qualifying for program improvement; ten districts qualified two buildings; and two districts qualified ten buildings. Nine school districts with sixteen buildings qualified for program improvement for the second or third consecutive year.

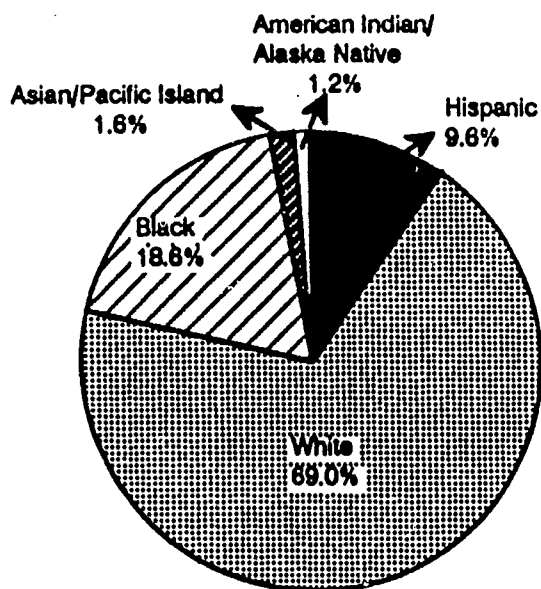
PARTICIPATION

In 1992-93, 304 unified school districts participated in the Chapter 1 program in Kansas. Of these 304 districts, 301 offered regular term programs serving 33,676 students, or 7.0 percent of public and nonpublic school enrollments in Grades K-12. Three school districts offered summer programs only.

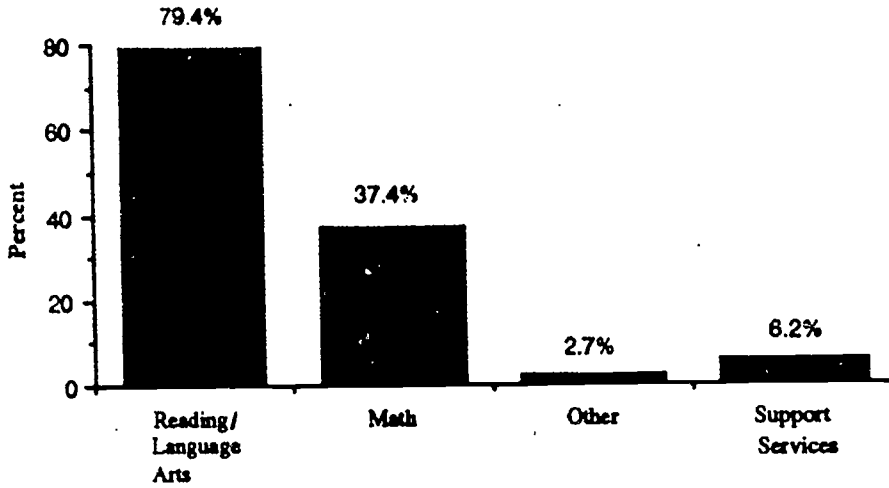
Chapter 1 Student Participation by Level



Chapter 1 Student Participation by Racial/Ethnic Identity



Chapter 1 Student Participation by Activity*



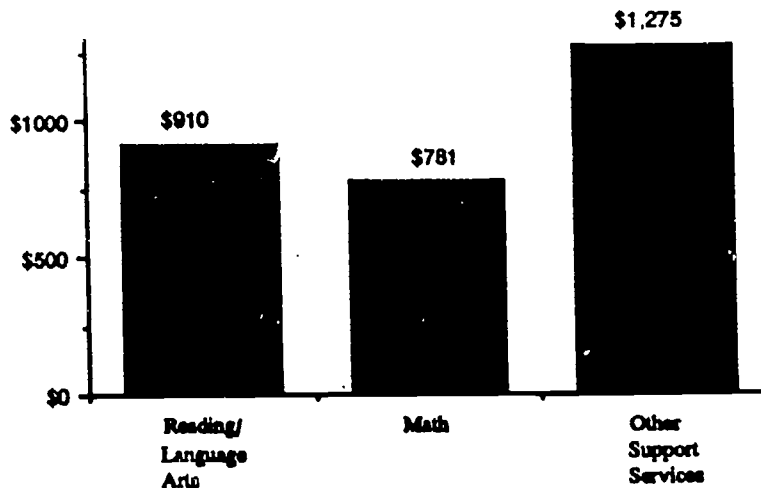
*Percent will not equal 100 percent because students may participate in more than one activity.

EXPENDITURES

Chapter 1 expenditures for 1992-93 totaled \$38,036,962 with an average per student cost of \$ 898.

The majority of Chapter 1 funds is invested in intervention on the elementary level.

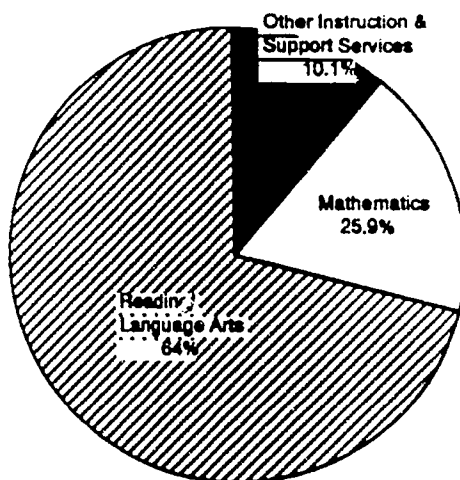
Chapter 1 Average Cost per Student by Instructional Area



Approximately \$24.3 million, or 64 percent of the Chapter 1 expenditures, was spent on reading/language arts activities and \$9.8 million on mathematics. Although the

percentage of funds spent in each subject area has changed only slightly from 1988-89 to 1992-93, the total dollars expended for mathematics has increased 48 percent and for reading 41 percent, indicating an increased emphasis on mathematics instruction in response to state and national needs.

Chapter 1 Expenditures by Subject Area



Salaries of 559.7 full-time equivalent reading/language arts teachers, 228.0 mathematics instructors, and 427.2 paraprofessionals were paid from Chapter 1 funds.

School districts spent \$371,254 of Chapter 1 funds for the involvement of 9,670 parents and teachers in the design and implementation of Chapter 1 programs.

Expenditures for Chapter 1 summer programs increased 17.6 percent from \$741,081 in 1991-92 to \$871,155 in 1992-93.

More detailed information is contained in the *Kansas Chapter 1, 1992-1993 Evaluation* which is available from the Program Support Services Team.

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22