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The 1948, Arkansas School District Reorganization Act was passed in an effort to reduce the 1589 small school districts to a smaller number. Those districts not consolidated would form county districts. As of the 1967-68 school year, 26 of these county districts remained. The purpose of this study was to provide information drawing attention to the situation existing in these districts. In an effort to initiate improvement of schools in these areas, the study examined the districts in terms of rurality, settlement patterns, spatial accessibility, financial resources and expenditures, quality of school operation, and school performance in terms of the extent to which school-age population enroll in and continue through high school. Comparisons were drawn between the county districts and existing independent school districts within the same county. Since the county districts were small, many of the problems encountered were similar to those experienced by small independent school districts. It was concluded that although consolidation of county with independent districts would not solve all problems of county districts, advantages of student and community participation would outweigh the disadvantages. (DK)

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Analysis of County School Districts In Arkansas

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In the general election of 1948 the School District Reorganization Act[1] passed by the voters of Arkansas required that in each county all school districts with less than 350 persons of ages 6 to 17 as of March 1, 1949, be combined to form a new school district. The new district, known as the "county" district, would be a single unit administered by the county school supervisor and an elective school board.

By the March deadline the number of districts in the state was reduced from 1,589 to 423. Many small districts became part of larger districts each having an administrative principal or superintendent. However, in 42 counties there remained one or more small districts that did not have 350 enumerates and had not consolidated before the deadline. Thus, the county districts were formed.

In formulating the School Reorganization Act the state leadership appears to have regarded the county school district as a temporary arrangement. The County Board of Education was authorized and directed with the consent of the board of the receiving district to annex all or portions of the county district created by the Act. During the 17 years from 1949 to 1965 the number of county districts was reduced from 42 to 32, and some of the 32 districts were reduced in size by fragments being consolidated with independent districts (Figure 1).[2] By the 1967-68 school year the number was reduced to 26. However, most of the county districts remain essentially in the residual status of 1949, and the special problem in organization that the county district represents apparently has caused little public concern.

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[1] "Initiated Act I of 1948, School District Reorganization," The School Laws of Arkansas, State Dept. Educ., Little Rock, Ark., pp. 112-114, 1962.

[2] The independent districts are administered by an appointive superintendent or principal in addition to the local school board and thereby distinguished from county school districts administered by the county school supervisor, the county-wide board, and the board of the county school district. The independent districts remained self-governing after the School Reorganization Act was passed.

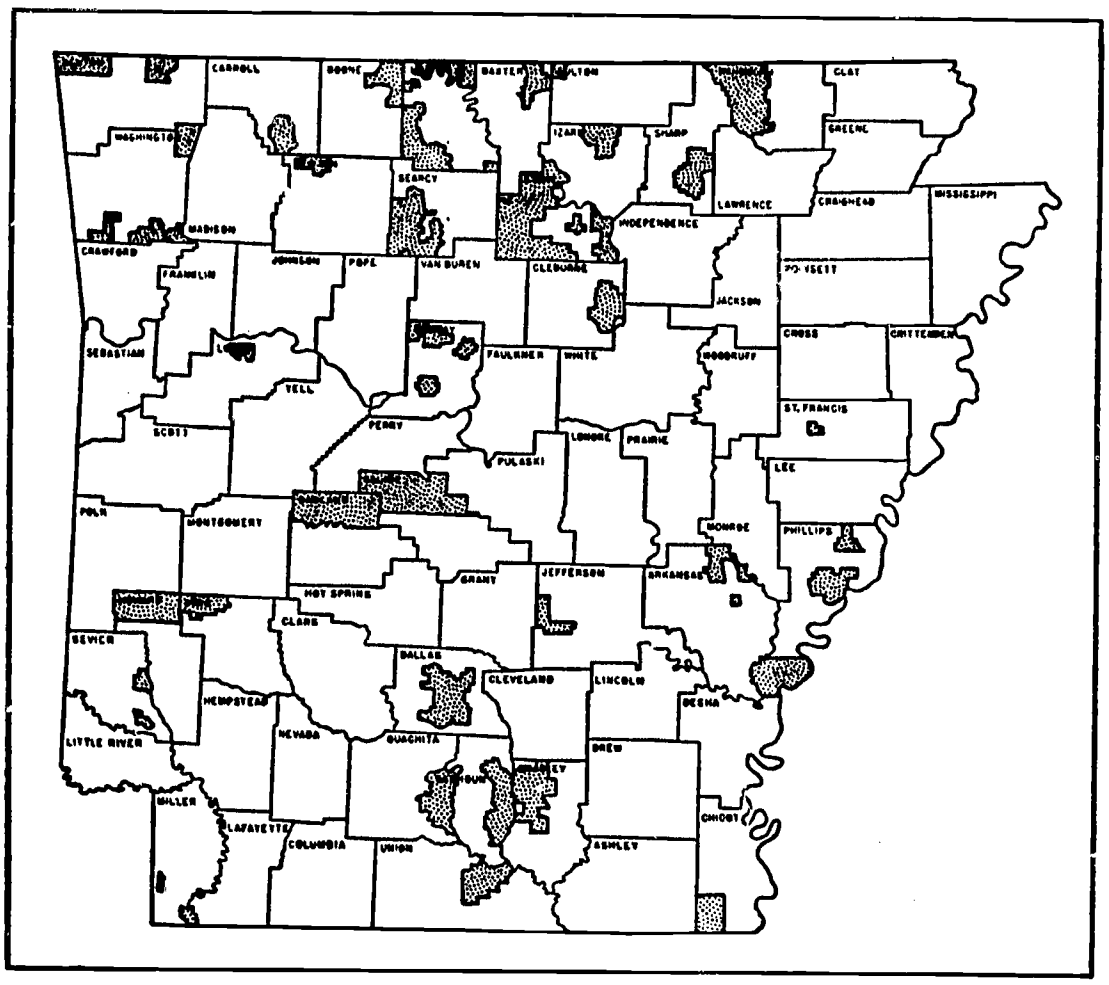

Figure 1. County School Districts, Arkansas, 1964

The general problem of the county school district is the difference between the increasing need for educational services and the training that can be supplied under existing spatial, resource, and institutional circumstances. In addition to usual difficulties of small districts, the county district tends to be peripheral to community trade areas and to be comprised of more than one fragmentary area.[3] A majority of the county districts must acquire all or a part of high school services from other districts. High school attendance, therefore, requires special provision for transportation and an annual agreement with one or more independent districts in respect to acceptance and charges for high school enrollment.

The process of adjustment and improvement of these districts may be difficult for they are confronted with economic and psychological barriers in both areas that need improvement and areas

[3] Fragmentary areas refer to areas within county districts which are separated from one another by independent districts. The parts of the county district that fall in different local community trade areas also are referred to as fragmentary areas.

that can offer assistance. Wealthy districts have little desire to annex the poorer districts because costs might increase beyond the tax revenues acquired from the annexed areas. Some county districts may resist annexation because they have a lower tax rate for schools than the independent districts with which they would be combined. Also, strong sentiment is attached to the local district and the people may feel that once the district is dissolved they would lose their identity as a local group.

This study develops information that could contribute to knowledge of the unique organizational structure and distinctive problems of the county school district. Because the county district is small, analysis of some aspects of the problem has application to small independent districts throughout the state. Dissemination of the information should draw attention to the school situation and possibly lead to action by the school leadership and public to improve the schools for these areas.

Objectives of the Study

The primary objectives of the study were to provide a description of the general characteristics of the county districts and the relationship of some spatial and socioeconomic factors with school operation. Specifically the main characteristics studied were: (1) rurality, settlement patterns, and spatial accessibility, (2) financial resources and expenditures, (3) quality of school operation, and (4) school performance in terms of the extent to which the school-age population enrolls in and continues through high school.

The scatter of population is related in the study to transportation problems, size of school, and the spread of teacher efforts among classes and grades. Population distribution and the financial base are related in the analysis to costs of school operation and to the indicators of school adequacy. Finally, the quality of school operation and antecedent factors are studied in their relation to enrollment and pupil continuation in high school.

Procedure and Methodology

An early essential step was obtaining maps of the school districts in the 32 counties with a county school district in 1965. The county supervisor was furnished an Arkansas Highway Commission map on which he transposed the district lines, and indicated the location and identification of school buildings. From the base map and school data, information was obtained on road types and distances, location of trade or community centers, and spatial ac-

cessibility. The symbols on the commission base maps showing the location of residences were further aids in studying population distribution.

For the preliminary investigation of the problem of school organization, data for the school year 1958-59 were used. The data were obtained from the State Department of Education's report to the legislature and the Arkansas Educational Directory. Also helpful were work sheets and a copy of a school report prepared by R. M. Roelfs.[4] Roelfs' data provided information that was studied and compared with that derived from the state reports. The work sheets and the Arkansas Educational Directory also were used in the analysis of teacher tenure and the high school accreditation ratings.

The State Department of Education's files contained most of the information that could be obtained from the office of the county school supervisor, and therefore data were transcribed from the records in the state office to save time and travel.

The annual reports of the county supervisors in the state office were used to provide the enrollment by grade, residence, and the transportation status of pupils. The county reports also supplied information on school operation and finances, number and type of teachers, transportation costs, and number of pupils transported.

The data for the independent districts in the counties having a county school district were compared to data for all such districts in the state to test whether the 32 counties containing a county school district are typical of the state. In Table 2 it is seen that all values or measures employed were quite similar except that the location of several large cities in counties not having a county district resulted in a large number of school-age persons in independent districts in such counties.

Next, the county districts were compared with the independent districts in the same counties. The facts that the independent districts of the 32 counties are similar generally to those of the state, and the county districts characteristically differ from them would point to other factors than the socioeconomic status of the county as determining the general position of the county districts as a group. Also, variation among county districts was compared to variation among independent districts in the 32 counties. The study of independent districts also is important because they represent the areas to which the county districts would be attached in any reorganization.

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[4] Roelfs, R. M., "An Analysis of Arkansas School Districts, 1958-60," Univ. of Ark., Fayetteville, Ark., 1962.

CHARACTERISTICS OF COUNTY SCHOOL DISTRICTS

This descriptive study of the county school districts considers ecological aspects, district organization, financial basis of school operation, and school quality and enrollment. Also, the county districts are compared to the independent districts to determine the relative position of the county districts.

Ecological Aspects of County Districts

The ecological nature of the county district is best understood in light of the districts' origin. The county districts were established as the combination in a county of any districts that had fewer than 350 persons of school age when the school district reorganization act became effective on March 1, 1949. They included small districts that did not consolidate with other districts due to lack of volition on their part or opposition to acceptance on the part of the larger districts. The residual nature of the county district is apparent at present.

The county district tends to be peripheral to community trade areas. None contained a trade center that offers all of the services frequently used.[5] Only three county districts contained a center with a population of more than 200; the largest of these centers had 460 people in 1960. Two-thirds of the county districts had no clustering of population sufficiently large to be reported (Table

Table 1. Population Concentration in County and Independent Districts, 1960

Size of center[1]	County districts		Independent districts[2]	
	Number	Percent	Number	Percent
5,000 and over	0	0	14	10.0
2,500 to 4,999	0	0	14	10.0
1,000 to 2,499	0	0	13	9.3
500 to 999	0	0	32	22.9
250 to 499	2	6.2	16	11.4
100 to 249	7	21.9	17	12.1
Less than 100	2	6.3	2	1.4
No population center	21	65.6	32	22.9
All districts	32	100.0	140	100.0

[1] A district with more than one place is classified by the larger village or city. Two county districts and 19 independent districts had two places each; two independent districts had three places each.

[2] These are independent districts in the 32 counties in which a county district was located.

[5] The community trade center is a place that provides the usual trade and other services used by the people in the center and in the tributary open country.

1). The villages present were sub- or satellite centers of larger villages, towns, or cities of the independent districts. Yet more than half of the independent districts in the same counties contained what may be considered community centers ranging in population from 500 to thousands.[6]

The county district tends to be fragmentary in area and in its relation to a community. Nine of the county districts were comprised of from 2 to 7 noncontiguous areas and 18 had parts falling into from 2 to 9 community trade areas. Nine of these 18 had both types of fragmentation. The remaining 14, the smaller county districts, comprised of one contiguous area falling in a single community trade area, may be considered to be fragments because of smallness.

Altogether this means that the county district tends to be extremely rural, relatively isolated, and rather extraneous to the organization of the community. The lack of population concentration is related to the low taxable wealth, dependence on state school revenues, high costs and extensive use of school transportation, and the fact that only one-third have a high school serving all of the district area.

Area of District

The mean of the area of the county districts was 41 square miles less than that of the independent districts (Table 2). The county districts ranged in area from 4 to 384 square miles, with 18 having less than 75 square miles. Sixty-two percent of the county districts covered an area of less than 100 square miles compared to 32 percent of the independent districts. When the county and independent districts were arrayed and grouped by size, the county districts were shown to have a much smaller area within each decile than the independent districts. The three large county districts in the tenth decile averaged only 6 square miles less than the 14 independent districts in the same decile (Table 3).

School-Age Population

During 1964-65 the county district had approximately one-fifth the school-age population[7] of the average for the independent districts, 237 persons compared to 1,156. Seventeen of the 32 county districts had less than 200 enumerates, compared to 2 of the 141 independent districts. In only six of the county districts did the

[6] Because of the similarity of the independent districts of the 32 counties and those of the state generally, hereafter, unless otherwise stated, independent districts will refer only to those in the 32 counties which contained a county district.

[7] School enumeration covers the ages 6 to 17 years of persons residing in the district.

Table 2. Comparison of County School Districts with Independent Districts in the Same Counties and All Independent Districts in the State, 1964-65[1]

Items and grouping	Unit	County school districts	Independent districts	
			In 32 counties[2]	In state
School districts	Number	32	140	383
Population and size of district				
Area, mean	Sq. miles	100	141	132
Persons 6 to 17 years old enumerated				
Per district	Number	237	1,156	1,999
Per square mile	Number	2.4	8.2	7.9
Districts with fewer than				
100 enumerates	Percent	19	0	1
200 enumerates	Percent	53	2	5
Pupils in ADA transported[3]	Percent	86	53	53
Transportation cost per ADA transported[4]	Dollars	60	39	36
School financial resources				
Tax assessment of property per enumerate[5]	Dollars	2,881	3,527	3,483
District tax rate for schools, mean	Mills	36	41	39
Local revenue receipts per enumerate[6]	Dollars	98	136	137
State revenue receipts per enumerate	Dollars	163	124	121
Total revenue receipts per enumerate[7]	Dollars	268	263	263
Sources of school support				
Local	Percent	36	52	52
State	Percent	61	47	46
Federal	Percent	3	1	2
School financial operation				
Expenditure per enumerate	Dollars	289	266	264
Indebtedness per enumerate[8]	Dollars	136	294	305
Distribution of funds				
Teaching salary	Percent	54	56	58
Administration	Percent	3	8	4
Transportation	Percent	15	7	6
Plant operation	Percent	7	7	3
Payment on indebtedness[9]	Percent	7	11	12
Other	Percent	14	11	17
Teacher qualification and pupil load				
Salary of teachers, mean	Dollars	3,700	4,031	4,119
Teachers in first year of service	Percent	12	14	14
Teachers without a bachelor's degree	Percent	37	27	26
Grades taught per teacher	Number	1.7	...	0.6
Pupils per classroom teacher	Number	20	26	24
School enrollment				
Enrollment in ADA	Percent	90	92	90
Continuance of enrollment from elementary to high school				
All[10]	Percent	65	66	67
White	Percent	69	71	71
Nonwhite	Percent	53	52	54

[1] All items apply to 1964-65 except teachers in first year of service applies to 1959-60, teachers having a bachelor's degree applies to 1958-59, and grades taught by teachers of the independent districts in the state applies to 1961-62.

[2] These are independent districts in the counties with a county district.

[3] ADA has reference to the number of pupils in average daily attendance.

[4] The transportation cost for a school district includes driver's salary; maintenance, operation, and replacement of school buses; insurance, and annual payment for contract buses. The measure is derived by dividing the sum of the transportation cost of the district by the number of persons in average daily attendance transported to school.

[5] The tax assessment of property per enumerate, used as an indicator of the financial ability of the school district to support the school program, is obtained by

dividing the assessed value of property in the district by its school-age population.

[6] The local support provided by the school program is determined by the assessed value of the property in the school district and tax rate voted for the school. Local support per enumerate is an indicator of the financial ability and the local effort of the residents of the school district to support schools. It is derived by dividing the local tax receipts collected for school support by the number of enumerates in the school district.

[7] From local, state, and federal sources.

[8] Indebtedness per enumerate is obtained by dividing the total indebtedness of the school districts at the close of the school year by the number of persons 6 to 17 years of age living in the district.

[9] Includes both bonded and non-bonded indebtedness.

[10] The number of pupils enrolled in grades 9 through 12 divided by the number of pupils enrolled in grades 5 through 8 for the school years 1957-58 through 1961-62.

number of persons of school age exceed 350, the minimum size for retention of the local district set in the district reorganization act of 1948. The range of county districts by the number of persons of school age, elementary and high, extended from 12 to 826 persons. Only one county district had more than 350 enumerates of high school age. The one county district that seemed to have an adequate number of enumerates for a satisfactory school system proved to have three attendance areas and three high schools within the district, and therefore was no exception to the generally substandard size of schools in county districts.

The number of persons of school age residing in county districts is decreasing. Nineteen of the 32 districts experienced decline in enumeration between 1960 and 1964, the average decrease for all districts being 7 percent. In contrast the independent districts had a 6 percent average increase in the number of persons of school age.

Table 3. Variation in Size of County and Independent Districts and Density of School-Age Population, by Decile, 1964-65[1]

Persons 6 to 17 years		Square miles in school district		Persons 6 to 17 years per square mile	
County district	Independent district[2]	County district	Independent district	County district	Independent district[2]
		Number			
33	230	7	38	0.9	1.9
60	324	28	65	1.2	2.4
109	375	36	90	1.5	2.9
139	421	52	104	1.7	3.4
173	515	60	119	2.0	4.3
206	611	78	137	2.4	5.6
222	788	123	156	3.5	7.5
268	1,228	149	187	4.7	10.2
386	1,933	207	224	6.9	13.4
673	5,139	282	288	12.1	52.6

[1] There are 3 districts in each group of county districts except groups 5 and 6 which have 4 districts each, and 14 in each group of independent districts.

[2] In subsequent tables "independent districts" refers only to the 140 districts in the 32 counties with a county district.

Density of School-Age Population

The county district during the 1964-65 school year had less than one-third as many persons of school age per square mile as the average independent district (2.4 persons per square mile compared to 8.2). Twenty-nine county districts had a lower density of school-age population than the average density of the independent districts. The county districts ranged in density from 0.8 to 15.8 persons per square mile; 15 had less than 2 persons per square mile. The large districts tended to be more sparsely populated than small districts. When the county and independent districts were arrayed by density and placed into 10 classes, in each case the independent districts had approximately twice as many school-age persons per square mile as the county districts; in the last decile the independent districts averaged more than four times more persons.

School Transportation

Transportation cost per enumerate and the proportion of pupils transported reflect accessibility to the school and the scatter of population in the district. The county districts transported a larger percentage of children in average daily attendance than the independent districts, 86 compared to 53. The transportation cost per person transported is higher in the county district than in the independent district because of the smaller number of school-age persons and the greater distances traveled between bus stops for pupils.

A variety of situations in county districts affect the arrangement for school transportation. In districts having white and nonwhite population, duplication in transportation services increases the transportation cost per pupil. School buses in several county districts of fragmentary area travel through an independent district before reaching the school plant. Several county districts have irregular district lines necessitating the operation of school buses across other district areas. Two county districts with only elementary schools do not provide transportation for their pupils, the pupils being within walking distance of the elementary school. High school pupils of these districts are provided transportation by the independent districts in which they enroll.

The use of school services in other districts requires transportation over longer distances than intra-district transportation. Twenty county districts transported pupils to school plants in other districts, two districts utilizing school facilities in as many as four adjoining independent districts. Two districts had arrangements for school attendance in an adjoining state. Pupils in several in-

Table 4. Type of Schools in County Districts, 1964-65

Type of school in district	District	Elementary schools	High schools
	Number	*Number*	
White pupils in district			
High school serving all of district area[1]	11	1	16
High school serving part of district area	5	7	6
No high school in district	4[2]	5	0
White and nonwhite pupils in district			
High school serving part of district	6	1	6
No high school in district	6	14	0
Total	32	28	28

[1] "High school" indicates that elementary grades are covered as well as grades 9 to 12.

[2] Includes one county district with no school within its boundary.

stances traveled as much as 40 miles from the county district to school, and in many others 25 miles or more. Some of the extreme distances are due to refusal of the nearer schools to accept pupils from the county district.

Type of Schools

The type of school in the district also reflects the area spread, low density of population, and lack of organizational completeness. During the 1964-65 school year the 32 county districts had 56 schools (Table 4) and an average of about 125 pupils enrolled. The four districts separately serving white and nonwhite pupils had 12 schools and an average enrollment of 63 pupils. None of the county districts with white and non-white population had provision for 12 years of schooling for all of the area and for both white and nonwhite pupils. Twenty-one of the 32 county districts depended on other districts for some or all of their high school attendance; the other 11 districts were in areas of all-white population. In contrast all except four of the 140 independent districts had a 12-grade school.

County School District Organization

School Boards

Administrative supervision of the county school district is rather indirect. Each district is controlled by the county school district board and the county supervisor. The county supervisor is appointed by the county board of education[3] with the approval of the

[3] The county board of education represents the entire county, with one member elected from each of the five zones of the county, and differs from the county school district board which is elected by voting residents of the county school district.

State Commissioner of Education. He is the superintendent of the county school district and assumes the duties performed by the superintendent of the schools in independent districts. He acts as the organizational link between the State Department of Education and the teacher in the county district school.

In four of the counties with a county district the office of county supervisor was abolished and a secretary employed with some administrative responsibility for the county district. This has been permissive since 1957 when the legislature passed an act giving the over-all board authority to employ a secretary or clerk in place of the county supervisor.

County school districts are made up of five zones, and the county school district board is made up of five members, one elected from each zone. One member is elected each year; the five-year terms overlap. The board has the same power and duties as do school boards of independent school districts except that consolidation of the county district may proceed independently of the board elected in the district.

Consolidation Procedures

A unique method has been set up by which the county school district can be consolidated. Part or all of the county district may be joined to an adjacent district or districts by the county board of education after receiving approval by the school board of the receiving independent district. Neither the members of the board of the county school district nor the residents of the county district determine the move.

Several methods of school consolidation used by independent districts also may be employed by county school districts. One method requires the approval of voters in all districts to be consolidated. Another states that upon petition of voters within the district seeking dissolution the county board of education, with approval of the school board of the district to which annexation is proposed, may abolish the district seeking consolidation and annex the area to the other district.

Supplementary School Services

The county supervisor as superintendent of the county district schools must arrange for supplementary school services needed by the county district pupils. The number of pupils placed in receiving districts and the tuition payments are determined by the county supervisor and the superintendent of the receiving district with the approval of the school boards of both districts.

Financial Basis of School Operation

Assessed Valuation

The assessed valuation of real and personal property is an indicator of the financial ability of a district to support the school program. In Arkansas, for tax purposes, the legal minimum for the assessment of property is 20 percent of the real value. Assessed valuation per enumerate is used as an indicator of local wealth and the ability of districts to provide for schools.

The assessed value of property is lower in the county districts and the tax base therefore less substantial than in the independent districts. The assessed value of property in 1964 was approximately $650 per enumerate less in county than in independent districts ($2,881 compared to $3,527). Twenty-two of the county districts were below the average for independent districts.

The variation in property values among districts is quite extensive. The assessed valuation in county districts ranged from a low of $884 per enumerate to a high of $9,675. County districts had a greater range by deciles than did independent districts (Table 5). In the first six deciles from low to high order, county districts had a lower assessed valuation per enumerate than the independent districts; in the last four deciles independent districts had lower values.

Tax Rate

Since change in tax rate for schools is submitted to vote, the rate may be considered to indicate the willingness of the residents of the district to support the school program. The average tax rate in the county districts during the 1964-65 school year was 5 mills below that of the independent districts (36 compared to 41 mills). Twenty-six of the county districts were below the average millage for the independent districts. Millage rates among the county districts ranged from a low of 18 mills to a high of 50.

Forty mills is the rate that must be maintained for a district to receive maximum state support. Fifty-six percent of the county districts fell below this rate, compared to 39 percent of the independent districts. Arrayed and classified by deciles the county districts fell into six groups with less than 40 mills; only four deciles of independent districts fell below this rate. The millage rate of the county districts was less than that of the independent districts in all 10 groupings. In the first two groups, the average county district rate was 10 mills below the average for the independent districts.

Table 5. Variation in Assessed Value of Property, School Tax Rate, and Revenues, County and Independent Districts, by Decile, 1964-65[1]

Property taxation				Revenue receipts for schools per enumerate					
Assessed value per enumerate		Rate per district for schools		Local		State		Total[2]	
County district	Independent district	County district	Independent district	County district	Independent district	County district	Independent district	County district	Independent district
Dollars		*Mills*		*Dollars*					
960	1,285	21	31	30	43	119	91	182	190
1,172	1,927	26	36	41	67	134	114	201	220
1,652	2,387	33	38	51	88	143	126	222	235
1,764	2,614	35	39	57	99	156	134	247	247
2,068	2,883	36	40	74	110	174	142	270	257
2,919	3,144	39	41	98	121	185	149	302	272
3,666	3,378	40	42	127	134	196	161	330	283
5,006	3,807	40	44	149	144	204	169	363	291
5,700	4,317	44	46	187	165	215	178	389	307
7,975	6,842	48	49	255	224	275	196	454	353

[1] See Table 3, footnote 1.

[2] Revenue receipts from federal sources included for county districts, but excluded for independent districts, amounting to 3 and 1 percent, respectively.

Revenue Receipts

Support of Arkansas schools is derived primarily from local and state sources; federal sources during the period studied comprised less than 3 percent of total school revenue. Because national forest land is located in some districts and not in others, and some districts are not using vocational funds, the amount of federal funds received by districts is quite variable.

Assessed valuation of property and the tax rate determine the amount of local revenue of the school district. Schools of the county districts receive less local support per enumerate than in independent districts because the tax base is less substantial. In several districts wide disparity exists between ability to pay and the amount of local revenues derived, as indicated by the low tax rate and high value of taxable property. Other districts are too small in area and too low in value of property to provide sufficient school funds from local sources.

For the 1964-65 school year the county districts received $38 per enumerate less local support than did the independent districts (an average of $98 compared to $136). However, receipts from state revenue amounted to $163 per enumerate for county districts compared to $124 for independent. The state support received by the county district tends to offset in total revenue the deficiency of local sources, and total revenues per enumerate were slightly higher for county districts ($268 compared to $263). Local support ranged from $25 per enumerate to $314 in the county districts and from $16 to $489 in the independent districts.

Four of the county school districts derived a considerable amount of support from federal sources because federal lakes and forest are located within the district area. Eleven other districts received minute amounts of aid. Some federal aid is allocated to the state in a lump sum and dispersed by the State Department of Education to school districts under the title of state aid.*

Total revenue receipts per enumerate in some of the county districts exceeded receipts in several independent districts because of the relatively large area and low density of population in these districts rather than any concentration of wealth.

Expenditures

During the 1964-65 school year approximately 86 percent of the funds in the county district were used for teachers' salaries, administration, transportation, plant operation, and payment on in-

* This federal aid is provided by the National Defense Education Act, public law 85-864, and allotted to the local school districts on the basis of approvable projects.

debtedness. The remaining 14 percent were expended for plant maintenance, tuition payments, and fixed charges.[10]

In many county districts the expenditure per enumerate is greater than in independent districts because the cost of making comparable educational services available in sparsely populated areas is higher than in densely settled areas.

Schools of high expenditure per enumerate are generally of better quality than schools of low expenditure. However, the data for the county districts must be interpreted carefully because expenditure per enumerate may be high in a large school providing good facilities and also in a very small school with inadequate facilities. Among county districts high per-pupil expenditure tends to occur in small schools located in sparsely settled areas.

The average expenditure per enumerate in the county district was $23 greater than in the independent district. The range of expenditures per enumerate by deciles, comparing county and independent districts, may be observed in Table 6.

The county districts spent an average of 15 percent of their funds for pupil transportation, and the independent districts only 7 percent. The higher transportation expenditure is attributable to several factors. The buses travel longer distances between stops for children, the percentage of pupils transported in the county district is greater than in the independent districts, more pupils proportionately are transported to schools outside the county district, and the procedure of dual transportation programs in areas of white and nonwhite population adds extra expense in small districts.

School plant operation consumed 7 percent of expenditures of county and also independent districts. The plant operation expenditure is relatively high in county districts with multiple schools such as in scattered areas with sparse or biracial population.

Payment on debt service comprised 7 percent of total expenditures in the county districts and 11 percent in independent districts. Six of the county districts had no indebtedness.

Teachers' salaries comprised the principal expenditure in both county and independent districts. The average county district expended 54 percent on teaching salaries and the independent district 56 percent. Transportation was the second largest expenditure in the county district, and payment on indebtedness was of second rank in independent districts.

[10] Fixed charges include school board payment for social security, other insurance, interest, rent, and other miscellaneous charges.

Table 6. Variation in Expenditures for Schools, County and Independent Districts, by Decile, 1964-65[1]

Total expenditure per enumerate		Proportion of expenditure for							
		Transportation		Plant operation		Indebtedness		Teachers' salary	
County district	Independent district	County district	Independent district	County district	Independent district	County district	Independent district	County district	Independent district
Dollars		*Percent*		*Percent*		*Percent*		*Percent*	
193	191	2	3	1	5	0	4	42	45
212	227	7	5	4	6	0	6	50	50
239	241	9	5	5	6	1	7	50	52
267	250	12	6	5	6	2	8	51	54
284	264	14	8	6	7	5	9	53	56
308	276	16	9	6	7	7	10	55	57
335	288	17	10	7	7	8	11	59	58
374	299	18	11	7	8	10	12	63	60
426	315	22	12	9	8	11	14	66	62
641	388	44	18	13	9	13	17	68	66

[1] See Table 3, footnote 1.

Indicators of School Quality

It is assumed that the quality of a school is indicated by such measures as training of teachers, number of teachers, number of grades taught per teacher, length of session, and whether or not the school has a split term. On this basis, the quality of schools in the county districts, in spite of somewhat higher expenditure per pupil, appears to be generally inferior to that of schools in independent districts. However, there is much variation in indicators of school quality in both county and independent districts.

Split-Term Sessions

The split-term session permits school-age children to assist in picking cotton during September and October. Schools start in late July or early August, are dismissed for the cotton harvesting season, and resume in late October or early November. This arrangement has been employed in the state's cotton region because many families need to augment income by their children's labor for family subsistence.

Four of the county districts had split-term schools. Enrollment in these districts ranged from a low of 19 to a high of 726 pupils during the 1964-65 school year. The split term appears to have little effect on the attendance of pupils enrolled, as the percent of enrollment in average daily attendance in these four districts approximated the mean of all county districts. However, the ratio of enrollment in grades 9 through 12 to that in grades 5 to 8 in these four districts was 22, 42, 73, and 83 percent,[11] while the average ratio for all county districts was 65 percent.

Length of School Year

The number of days during the year a school operates does not differ greatly between county and independent districts. The total number of days of operation for the 1958-59 school year ranged from 172 to 180, with the majority of schools operating 173 and 174 days. In 1964-65 school boards were required by state law to keep the school open a minimum of 173 days. Despite this requirement, some schools did not operate the full 173 days because half days of operation were counted as full days. If a school does not comply with the minimum requirement, its state aid is lowered according to the number of days falling below the minimum.

[11] The district with only 22 percent of pupils continuing in school is a very small one with inadequate school facilities and transporting all pupils in grades 6 to 12 to schools in another district.

Administrative Unit

Administrative personnel are lacking in some county school districts. The county supervisor of schools, if retained in the county, serves as the superintendent for the county school district. Four counties did not have a county supervisor; one district in these counties had a school superintendent who made recommendations to the board and conducted some school administrative affairs.

Most of the county districts are small and their financial situation and low enrollment do not permit them to employ a superintendent of schools. Schools of 12 grades in the county districts ordinarily have a principal who not only has teaching and supervisory responsibility for the school but also may serve as an intermediary, at least in an advisory capacity, between teachers and the county school supervisor and the board of the county school district. However, the principal's authority and responsibility is confined to the school in which he teaches. This left two-thirds of the county districts with no principal of a 12-grade school serving all of the district; 22 of the 56 schools had a principal and a 12-grade school but not serving the entire district (some had more than one high school per district); and 28 elementary schools scattered throughout the county districts had little internal supervision and no organizational medium between teacher and board.

School Plants

Twenty county districts in which provision was made to receive a portion or all of high school services from other districts operated 27 elementary schools. Only four of these schools provided one room for each grade; 10 schools had three or more grades per room, 7 of which had one room for all grades taught.

The number of high schools in operation in the 22 county school districts with one or more high schools was 28. The high school buildings were more adequate for teaching purposes than were the grade school buildings. Sixteen of the 12-year schools had one or more grades per room.

As noted, the majority of the county schools have inadequate facilities for instructing students. Sixty percent of the schools had more than one grade per room, with lessons being taught for one group of pupils while another was assigned to study.

Teacher Salary, Tenure, and Training

The county school districts paid classroom teachers an average of $331 less per year than did independent districts during the 1964-65 school year (averages of $3,700 and $4,031). Salaries in the

county districts ranged from $2,837 to $5,544. Only four county districts paid an average salary above the average in independent districts.

When teacher salaries are arrayed and grouped by deciles, the average salary in the independent districts is seen to exceed that of the county districts in each decile except the tenth (Table 7). In this decile county districts exceeded independent districts by $596. There was a greater range in salary between first and tenth deciles among the county than the independent districts ($2,155 compared to $1,211).

Table 7. Variation in Indicators of School Quality, County and Independent Districts, by Decile, 1964-65[1]

Teacher's salary		Teachers new in system[2]		Teachers without a bachelor's degree[3]		Pupil-teacher ratio	
County district	Independent district	County district	Independent district	County district	Independent district	County district	Independent district
Dollars		*Percent*				*Number*	
2,899	3,250	0	0	0	5	10	18
3,192	3,493	0	0	0	10	14	20
3,317	3,599	0	5	13	14	16	22
3,483	3,708	0	8	20	19	17	22
3,624	3,803	0	11	28	21	18	23
3,706	3,874	6	14	40	25	19	24
3,783	3,953	17	18	57	29	20	25
3,913	4,063	24	21	64	36	21	26
4,071	4,189	29	24	70	45	23	27
5,054	4,461	46	35	85	57	26	29

[1] See Table 3, footnote 1.
[2] Applies to 1959-60.
[3] Applies to 1958-59.

The proportion of teachers in the first year of tenure indicates inversely the stability of tenure. County districts as a group had about the same rate of teacher turnover as independent districts. However, 16 county districts (those in the first five deciles) had no first-year teachers in 1959-60, whereas only two deciles, or one-fifth of the independent districts, had no new teachers.

Teachers in county districts have less college training than do teachers in independent districts. Sixty-three percent of the teachers in the county districts and 73 percent of those in the independent districts had a bachelor's degree in 1958-59. Four deciles of county districts, compared to one decile of independent districts, had over 50 percent of the teachers without a bachelor's degree.

Grades per Teacher

When a teacher is required to teach more than one grade or, in the upper grades, all subjects within a grade, little preparation

can be made for each subject taught. The average teaching load was greater in the county districts than in the independent districts of the state, 1.7 grades per teacher compared to 0.6 of a grade. Among the county districts there was a range of 0.6 to 6.0 grades per teacher, with 28 districts having an average of more than one grade taught per teacher.

During the 1964-65 school year 320 teachers were employed by 31 county districts, 160 by elementary schools and 160 by secondary schools. One district did not employ any teacher because all pupils were sent to a school outside the district. Five elementary schools having grades 1 through 6, and two with grades 1 through 8, employed only one teacher.

The county districts employed 13 vocational teachers of agriculture and home economics who were located in nine of the districts. Librarians, the only other specialized school personnel, were found in only four districts. There were 28 districts, and 52 schools out of 56, without the services of a librarian.

Pupil-Teacher Ratio

The number of pupils per classroom teacher is lower in the county than in the independent districts. The average number of pupils per teacher in the county district was 20 compared to 26 in the independent district during the 1964-65 year. This ratio does not provide a valid indicator of the quality of school operation in this study, however. Many county districts have a small number of pupils enrolled and a low pupil-teacher ratio, but teacher effort is dispersed over several grades and subjects and the school is substandard in other respects.

School Rating

The high schools of Arkansas receive a rating each year based on quality. Membership in the North Central Association is the highest rating received by a school. Other ratings, given by the state, in order of rank, are A, B, and C. Of the 28 high schools operating in 22 county districts during the 1964-65 school year none met the qualifications for membership in the North Central Association. Only one, a school for nonwhite pupils in the delta subregion of the state, had an A rating. Five of the schools for white pupils received a B rating, and 17 a C rating. Three high schools serving only non-white pupils had a C rating and two, shown as X, were not rated for that year by the State Department of Education.

Enrollment and Continuance in School

The data of this study indicate that in spite of the difference

between county and independent districts in the quality of schools, the percentage of enumerates enrolled in school and continuing in high school is similar between the two types of districts. The proportion of enrollment in average daily attendance was 90 percent in the county districts and 92 percent in independent districts. The continuation of enrollment from elementary to high school was only 1 percent higher for independent than for county districts. A greater difference existed between white and nonwhite in high school enrollment (the latter of lower rate) within each type of district than between independent and county districts.

Summary

County districts are in a more difficult spatial or ecological situation than the independent districts in the same counties. The county districts are located in rural areas containing no community trade center, and approximately half are comprised of two or more fragmentary areas. The districts were approximately 41 square miles smaller than the independent districts, and had approximately one-fifth the average number of persons of school age. The number of school-age persons per square mile was about one-fourth that of the independent districts. The county districts transported to school a larger percentage of children at a higher cost per pupil than did the independent districts because of the greater sparsity of population and distances traveled within the district and to schools in other districts.

Administrative supervision of the county district is indirect. The Board of Education elected from the county at large appoints, with the approval of the State Commission of Education, the supervisor whose duties include administration of the county school district.

The assessed valuation of property and millage rates were lower in the county district and the tax base therefore was less substantial than in the independent district. The county district received more financial support per enumerate from the state than did the independent district, which tended to offset in total revenue the deficiency of local sources.

The expenditure per enumerate in the county district was slightly higher than in the independent district but the distribution of the expenditures differed. The proportions of funds expended for teachers' salaries and plant operation were approximately the same for county and independent districts. The county district spent 15 percent of its funds for transportation, while the independent district spent only 7 percent. The percentage expenditure on

indebtedness in the county district was less than in the independent district.

School quality in the county district appears to be lower than in the independent district. Twenty of the 28 high schools had a low official C rating during the 1964-65 school year. The teaching load in the county district is much heavier than in the independent district. Teachers in the county district instructed pupils in an average of 1.7 grades; teachers in the independent district covered less than 1 grade. Teachers in the county district had less college training and subject matter preparation. Only 63 percent of the teachers in county district schools had a bachelor's degree, compared to 73 percent in independent district schools.

SPATIAL FACTORS AND SCHOOL OPERATION

While the difference between county and independent districts in pupil accessibility to schools is pronounced, much variation occurs in this respect among county school districts. This section relates size of district in area and in school-age population, population density, and type of school to each other and to such characteristics of the district as financial base and revenues, extent and cost of school transportation, and teacher grade-load.

Area of County School Districts

As the district area increased in size the density of the school-age population tended to decrease (Table 8). The density was 5.2 in the first quartile with the smallest area, and 1.8 in the fourth quartile with the largest area. One district in the second quartile was small in area but had the second highest enumeration of all county districts, or 635, which exceeded the number of enumerates in other county districts in the second quartile by more than 300. If this district were excluded the second quartile would have 3.2 enumerates per square mile. The districts of more than 65 square miles were more sparsely populated and more rural than the smaller ones.

Financial factors tend to be correlated with size of the district, but not consistently throughout the range. Assessed property values rose with the ascending quartiles, differentiating positively by five of six possibilities.[12] The fourth quartile, containing the eight districts of largest size, had a lower property value than the

[12] Based on the comparison of numbered quartiles as follows: 1 and 2, 1 and 3, 1 and 4; 2 and 3, 2 and 4; 3 and 4.

Table 8. Density of School-Age Population, School Financial Base, Transportation, Type of School, and Teaching Load, County School Districts, by Area, 1964-65

Item	Unit	Number of square miles per county district			
		4 to 32	45 to 61	69 to 141	148 to 384
County school districts	Number	8	8	8	8
Area, mean	Sq. miles	21	55	103	222
Persons 6 to 17 years old enumerated					
Per district	Number	110	233	216	390
Per square mile	Number	5.2	4.2	2.1	1.8
Tax assessment of property					
Per enumerate	Dollars	1,676	2,769	3,635	2,868
Per square mile	Dollars	8,792	11,691	7,623	5,044
District tax rate for schools, mean	Mills	34	37	39	36
Local revenue receipts per enumerate	Dollars	55	102	133	88
Pupils in ADA transported	Percent	82	82	92	88
Transportation cost per ADA transported	Dollars	51	60	56	68
Type of school					
Only white pupils in district					
High school serving all of district	No. of districts	0	2	4	5
High school serving part of district	No. of districts	0	0	0	2
No high school in district	No. of districts	2	2	0	0
White and nonwhite pupils in district					
High school serving part of district	No. of districts	4	1	4	0
No high school in district	No. of districts	2	3	0	1
Grades taught per teacher	Number	1.5	2.0	1.5	1.7

districts in the third quartile. Although there was more land area per enumerate in quartile 4, the assessed value of property per enumerate dropped by 34 percent below quartile 3 because the value per square mile was much less.

The other component of the local school revenue derived from property, the tax rate, also varies with district size: the districts in the second quartile voted an average of 3 mills more than did those in the first quartile, and the third quartile districts voted 2 mills more than the second quartile districts. The districts of the fourth quartile again were exceptional, voting a 3-mill lower rate than those in the third. The largest districts with less valuable property assessment and a lower tax rate for schools had, therefore, much lower local school revenues than the districts of intermediate size which fell in the second and third quartiles. The smallest districts, disadvantaged both in tax rate and assessed value of property per enumerate, had approximately half the local revenue per enumerate of the average for all other districts, in spite of the fact that they ranked second in respect to assessed value of property per square mile.

The percentage of pupils in average daily attendance transported to school increased as the area of the district increased. The 16 districts of 65 square miles and more transported significantly more of their pupils by school bus than smaller districts. The third quartile exceeded the fourth quartile by a small margin, possibly because proportionately more pupils were transported by the county district to servicing districts.

With the exception of the smallest districts, the cost of pupil transportation tended to rise with area size. No district in the first quartile had a high school serving all of its area; compared to the other quartiles a higher proportion of the pupils attending high school had to be transported outside the district.

District size and provision of a high school appeared related. Of the 22 county districts with one or more high schools, only 11 provided high schools for all pupils in the area; nine of these 11 were located in the larger districts. Only two districts in the first two quartiles had a high school covering the total area and five had a high school covering part of the area; the other nine had no high school services within the district. Thus the districts larger in area had more extensive high school coverage for pupils of the district, and proportionately fewer pupils were transported to other districts for high school training.

The number of grades taught per teacher appeared to have little dependency on the size of the districts. The spread of teacher effort was common to all areas.

School-Age Population

County school districts tend to be small in terms of the total number of persons of school age. In Table 9 the county districts are divided into four classes according to the number of enumerates per district. This permits examination of the relation between school-age population size and school financing, transportation, type of school, and teacher load.

In general, school financial and operational factors do not appear to be related consistently to size of districts as measured by school-age population. However, as the number of persons of school age increased, the area of the districts increased consistently from one quartile to the next. The number of persons of school age per square mile also increased from the second to the fourth quartiles. The area of the first quartile was so small (29 square miles) that the 68 enumerates gave the second highest density of the series.

Table 9. Density of School-Age Population, School Financial Base, Transportation, Type of School, and Teaching Load, County School Districts, by School-Age Population, 1964-65

Item	Unit	Number of school-age persons in county school district			
		Less than 125	125 to 199	200 to 299	300 or more
County school districts	Number	8	9	7	8
Persons 6 to 17 years old enumerated					
Per district	Number	68	153	244	498
Per square mile	Number	2.3	1.6	2.3	2.9
Area, mean	Sq. miles	29	96	105	172
Tax assessment of property					
Per enumerate	Dollars	2,600	4,179	2,851	2,480
Per square mile	Dollars	6,088	6,629	6,654	7,148
District tax rate for schools, mean	Mills	32	38	39	36
Local revenue receipts per enumerate	Dollars	79	142	100	85
Pupils in ADA transported	Percent	79	92	90	84
Transportation cost per ADA transported	Dollars	55	64	61	61
Type of school					
Only white pupils in district					
High school serving all of district	No. of districts	1	3	4	3
High school serving part of district	No. of districts	0	0	0	2
No high school in district	No. of districts	4	0	0	0
White and nonwhite pupils in district					
High school serving part of district	No. of districts	2	5	1	1
No high school in district	No. of districts	1	1	2	2
Grades taught per teacher	Number	2.3	1.7	1.6	1.6

With the exception of the extremely small districts of the first quartile, assessed value of property per enumerate tended to decrease as the number of school age persons in the district increased. The second quartile had exceptional property tax value, because one of these districts approached $10,000 per enumerate. Excluding this district, the remainder in the quartile had an assessed valuation per enumerate of approximately $3,500. The higher value is due to the relatively few enumerates per square mile since the property value per square mile approximated that of other quartiles.

The tax rate levied for the schools and the amount of local revenue received per enumerate were greater in the second and third quartiles than in the first and fourth, with the second quartile providing greater support per enumerate than any other class. As a result of variation among the districts in assessed value of property and tax rate, the local revenue receipts dropped pronouncedly from the second to the fourth quartile, from $142 to $85

per enumerate. The smallest districts derived the least local school tax funds because they had next to the lowest property values per enumerate and the lowest tax rate.

The percent of school-age persons transported did not appear to be consistently related to size of district. The districts with less than 125 enumerates had the smallest percentage of pupils transported, whereas those with 125 to 199 enumerates had the largest percentage.

When transportation cost per pupil transported is studied, it is seen that the cost remained relatively constant among the districts with more than 125 persons of school age. The eight smallest districts had lower cost per pupil transported. These districts have some advantage in cost because of their small area and above average density, and the furnishing of transportation to a somewhat smaller proportion of pupils.

Although the relationship is not consistent throughout the quartiles, the districts larger in school-age population and in area tended to have more schools, both elementary and high, and to serve within the district a higher proportion of the pupils residing in the district. The third and fourth quartiles, comprised of 15 relatively large districts of 200 or more school-age persons, contained 7 of the 11 districts with high schools serving the entire area. These quartiles contained 17 of the 28 high schools and 19 of the 28 separate elementary schools located in all districts.

The districts with less than 125 enumerates placed a greater subject-grade load on the teacher than did the larger districts. Three districts of this group had six small elementary schools, each of one or two teachers, which required that the teachers must cover instructional subjects in 4 to 6 grades.

Density of School-Age Population

The density of school-age population in the districts most effectively points up their rurality, for it takes into account both enumeration and area of the districts. Although the county districts as a group were sparsely populated (2.4 enumerates compared to 8.2 for the independent districts), there was much variation among them. Table 10 shows a variation in density from 1.1 to 7.3 from the first to the fourth quartile; the overall range is from 0.8 to 15.8. This measure is more consistently correlated, and more vitally related, to financial and other factors than are the size variables employed in the two preceding tables.

As the density of the districts increased, the area size tended

Table 10. School Financial Base, Transportation, Type of School, and Teaching Load, County School Districts, by Density of School-Age Population, 1964-65

Item	Unit	Number of school-age persons per square mile			
		0.8 to 1.5	1.6 to 1.9	2.1 to 3.8	4.5 to 15.8
County school districts	Number	8	7	8	9
Persons 6 to 17 years old enumerated					
Per square mile	Number	1.1	1.8	2.5	7.3
Per district	Number	145	229	295	274
Area, mean	Sq. miles	128	130	117	37
Tax assessment of property					
Per enumerate	Dollars	4,312	3,442	2,594	2,121
Per square mile	Dollars	4,872	6,035	6,669	15,536
District tax rate for schools, mean	Mills	36	35	34	39
Local revenue receipts per enumerate	Dollars	146	116	73	87
Pupils in ADA transported	Percent	93	92	89	78
Transportation cost per ADA transported	Dollars	66	76	50	39
Type of school					
Only white pupils in district					
High school serving all of district	No. of districts	5	3	2	1
High school serving part of district	No. of districts	0	1	1	0
No high school in district	No. of districts	1	2	1	0
White and nonwhite pupils in district					
High school serving part of district	No. of districts	2	0	3	4
No high school in district	No. of districts	0	1	1	4
Grades taught per teacher	Number	1.5	1.8	2.0	1.5

to decrease. The opposite tendency was noticed when the size of the district was expressed by the number of persons of school age. As density increased, the number of enumerates per district increased, and this was differentiated positively among the quartiles in five of the six possibilities. The third quartile contained an exceptional district of 826 enumerates, and consequently this quartile showed more persons of school-age per district than the fourth quartile.

Assessed valuation and district density are closely and consistently related. As the density increased, the assessed valuation per enumerate tended to decrease. Districts in the fourth quartile had only half as much property tax value per enumerate as did districts in the first quartile. Differences in assessed valuation among districts in the first three quartiles were due primarily to the quantity of land assessed per enumerate rather than to variation in quality. As indicated previously, population concentration and nonfarm property are not extensive in the county school districts; however, in the fourth quartile the reverse was true and

districts were small while land was of high quality. The concentration of school-age population (7.3 per square mile) lowered the assessed valuation per enumerate. The variation of assessed valuation per enumerate among the quartiles is a result of variation in the extensiveness of property — in the number of acres per taxpayer — with the exception of the fourth quartile which had low acreage of high tax value.

The tax rate decreased by one mill from the first through third quartile as the density of the school-age population increased. In the fourth quartile, of highest density, the districts levied a tax averaging 39 mills, the highest rate of the four groups.

The amount of local revenue received per enumerate decreased from the first through the third quartile and increased slightly in the fourth. Districts in the third quartile provided about half as much local revenue receipts per enumerate as did districts in the first quartile. The somewhat higher local revenue value in the fourth quartile resulted from the higher millage rate and greater property value per square mile. As is evident consistently in Table 10, the main component in the drop in local revenue as density rose is the variation in the value per enumerate of assessed tax property.

The percent of pupils transported to school is inversely related to the density of school-age population. The quartiles were differentiated inversely in all six possibilities. The much smaller districts in the fourth quartile had the most pronounced drop in pupils transported — to 78 percent from 89 percent in the third quartile. The relatively high density and small area of districts in the fourth quartile means that family transportation and walking to school can be more prevalent than in larger and more thinly populated districts. Also affecting the school transportation rate is the fact that nonwhite pupils in sparsely populated districts were more dependent on enrollment in schools in other districts and on public transportation.

A similar inverse relationship is noted between density and the transportation cost of pupils transported, which differed by quartiles in five of the six possibilities. The exceptional value in quartile 2 was due to the extraordinary cost reported by one district ($215); if deleted, the cost would average $63 per pupil for the other six districts in the quartile.

The teacher load was lighter where the density was lowest and where it was highest. The districts falling in the middle quartiles placed a heavier load on their teachers. These two quartiles of 15 districts contained 20 of the 28 separate elementary schools which characteristically have high grade-teacher ratios.

Contrary to expectation the 15 districts of low density (less than 2.0 school-age persons per square mile) offered more nearly complete school training through 12 grades. Eight of the 11 districts that had a high school serving the entire area were in the two low-density quartiles, while 8 of the 11 districts in which the high school served only part of the area had a density of more than 2.0 persons per square mile. Also, 6 of the 10 districts with no high school were in the high-density quartiles.

Spatial Aspects and Type of Schools ir District

In Table 11 the county school districts are classified by the presence of white and nonwhite pupils and whether 12-grade schools are present and serve all of the district area.

Of 15 biracial districts none had high schools serving both white and nonwhite pupils residing throughout the district; 9 had a 12-grade school with partial coverage (three for white pupils and six for nonwhite), while the other 6 had 14 elementary schools only, being dependent for all high school attendance on the acceptance of their pupils by other districts. In contrast, 11 of the 17 districts with only white pupils had 12-grade schools (6 districts with one high school and 5 with two each) serving the entire area.

Table 11. Density of School-Age Population and Transportation, County School Districts, by Type of Schools, 1964-65

Item	County districts	Schools in districts		Area	Enumerates		Pupils in ADA transported	Transportation cost per pupil in ADA transported
		High school[1]	Elementary		Mean	Per square mile		
		Number		*Sq. miles*	*Number*		*Percent*	*Dollars*
Only white pupils in district	17	19	12	130	252	1.9	87	60
High school serving all of district	11	16	1	196	287	1.8	88	50
High school serving part of district	2	3	6	183	438	2.4	88	48
No high school in district	4	0	5	33	67	2.0	82	114
White and nonwhite pupils in district	15	9	16	66	219	3.3	85	63
High school serving part of district	9	9	2	63	205	3.3	85	53
No high school in district	6	0	14	71	241	3.4	86	85
High school service								
All of district area	11	16	1	196	287	1.8	88	50
Part of district area	11	12	8	85	248	2.9	86	54
None of district area	10	0	19	56	171	3.1	86	92

[1] See Table 4, footnote 1.

The white-nonwhite districts contained four-fifths as many school-age persons and half the area of the other districts. This gave a somewhat higher density of 3.3 for the 15 white-nonwhite districts, compared to 1.9 for the 17 districts with white pupils only. The density for each race was lower in the 15 districts, however, and the transportation cost per pupil transported somewhat higher.

Within the county districts 11 provided high school services for all the district area, 11 provided high school services for part of the area, and 10 offered no high school services within the area.

The 11 districts offering high school services for all the area had 16 12-grade schools and 1 separate elementary school. These districts had more area and more enumerates than the other two groups, but the density of school-age population was lower. The percentage of pupils transported to school was slightly higher than in the other groups, and school transportation cost was lower in spite of the low density of school-age population. The lower cost is related to the fact that school transportation was confined to the district area, to the presence of one race, and to the reduction of distance of bus travel caused by the presence of two high schools in five of the 11 districts.

The 11 districts offering high school services covering part of the area contained 12 high schools and 8 separate elementary schools. These districts had less than half the area and about four-fifths the number of school-age persons enumerated; therefore the density of school-age population was higher than in districts with high schools serving all the area. While the density tends toward lower transportation cost, the fact that 9 of the 11 districts were white-nonwhite is a factor of increased cost. Because of these counteractive factors, transportation cost was slightly higher per pupil transported than in the all-white all-service districts.

The remaining 10 districts had no high school but maintained 19 elementary schools. These districts were the smallest districts in area and in the number of enumerates per district, highest in density, and similar to the second group in respect to school-age population transported to school. Since they must provide transportation within the district for elementary school attendance and to other districts for all of the high school attendance, the cost per pupil transported was about double that of the other districts.

Summary

Most of the county districts are small in area. The larger districts had fewer persons of school age per square mile. The per-

centage of pupils in average daily attendance transported to school was higher in districts with more extensive area. The districts that were larger in area provided high school services within the district, while the smaller county districts employed outside services. The county districts also are small in terms of the total number of persons of school age, all but two having less than 350 enumerates of high school age. The districts of greater density had fewer pupils to be transported to school. Districts with only white pupils were less densely populated.

FINANCIAL RESOURCES AND SCHOOL OPERATION

This section considers the financial resources and tax base for schools in the county districts and the relation of these factors to school operation. The assessed value of property is used to show variation among the districts in ability to support schools from local taxes. Tax rate and borrowing are employed to indicate the consensus of effort on the local level to support the school. School financing and teacher qualification are compared according to the type of schools in the districts. After the independent districts in the 32 counties are classified by the local revenue variable of county districts, the setting of the county district is described by comparing and interrelating the financial and operational factors of the two types of districts.

Tax Property Value and School Financing

The county districts were grouped into quartiles on the basis of the assessed value of property per enumerate, and the variation was then related to size of district in area and school-age population, to density, and to revenue receipts from state and local sources (Table 12). The assessed value of tax property extended from $1,193 per enumerate for the eight districts of the first quartile to $6,144 per enumerate for the eight districts in the fourth.

One of the more consistent differences among these quartiles is the number of persons 6 to 17 years old per square mile. The density of the school-age population decreased as tax assessment of property per enumerate increased, ranging from a high of 5.1 persons per square mile in the first quartile to a low of 1.7 persons in the fourth. It may be noted that density is the principal component of the variation of assessed value of property per enumerate, and it is only in the fourth quartile that the higher

Table 12. Size of District, Local Tax Base, and Revenue Receipts, County School Districts, by Assessed Value of Property, 1964-65

Item	Unit	Assessed value of property per enumerate: Under $1,650	$1,650 to $2,499	$2,500 to $4,999	$5,000 and over
County school districts	Number	8	8	8	8
Tax assessment of property					
Per enumerate	Dollars	1,193	1,907	3,204	6,144
Per square mile	Dollars	6,063	5,365	5,790	10,754
Area, mean	Sq. miles	33	122	155	92
Persons 6 to 17 years old enumerated					
Per district	Number	166	343	279	160
Per square mile	Number	5.1	2.8	1.8	1.7
District tax rate for schools, mean	Mills	38	33	40	32
Local revenue receipts per enumerate	Dollars	43	56	120	206
State revenue receipts per enumerate	Dollars	192	159	148	166
Total revenue receipts per enumerate	Dollars	236	218	287	375
Sources of state support					
Local	Percent	18	26	42	55
State	Percent	81	73	52	44
Federal	Percent	1	1	6	1

value of property on an area basis accounted significantly for the higher value on the per enumerate basis.

Little connection is observed between the assessed value of property per enumerate and the tax rate for schools, although the fourth quartile had a much lower tax rate than the first and third quartiles. All quartiles were below the average of 41 mills for independent districts. In general the districts with slight local wealth did not attempt to raise the amount of local support for the schools by increasing the tax rate. However, the eight districts with the highest assessed valuation had the lowest average tax rate, indicating lack of interest on the part of some of the wealthy districts to utilize their greater potential to support the school program.

There is great variation among the quartiles in the local support derived. The amount of revenue tended to increase as the tax assessment of property increased. This is to be expected for such rural areas because, as the value increases per enumerate, there are fewer enumerates per square mile of land area and more land area per enumerate. The other component of the revenues derived — the tax rate — did not vary consistently with the increase in assessed value of property. Local school revenues in the first three quartiles fell below those of the independent districts.

In general the amount of support provided by the state appears

to have little connection with the assessed valuation of property in the districts. Limitation of local tax resources or need has not, in practice, been an important criterion for the distribution of state funds among the county districts. The small districts in the first quartile with the lowest tax assessment did receive the greatest amount of state support per enumerate; but the districts with the greatest tax assessment received more state support than those districts in the intermediate quartiles of lower value. The amount of local support primarily determines the difference in the total receipts per enumerate among the county districts.

The total revenue receipts of county school districts increased among the quartiles as the local support and assessed valuation increased, with the exception of the second quartile. However, the slight difference in total revenue is due to the exceptional amount of state support in the first quartile.

Four of the school districts derived a considerable amount of revenue from sources classified as federal because of federal lakes and forests within the area, 11 other districts received only minute amounts, and 17 received no federal aid.

Local revenue receipts ranged from 18 percent of total revenue in the first quartile to 55 percent in the fourth. Eighty-one percent of school support to the county districts of the first quartile was provided by the state, whereas in the fourth quartile only 44 percent was state support.

Tax Property Value and School Operation

Just as the amount of local school receipts per enumerate varied directly with the property assessment and inversely with the density of the school-age population, so also did total school funds per enumerate, since the other principal component (state funds) remained relatively constant among the quartiles. Since the funds available for schools and school expenditures must be equal over several years, it follows that expenditures per enumerate also varied directly with the assessed valuation and inversely with the density of the school-age population (Table 13).

Since assessed value of tax property (and resultant local funds derived) is the principal variant of total funds for schools, it follows that property wealth is the principal variant of the measures of school operation, several of which may in turn reflect differences among districts in school quality. However, indicated rela-

Table 13. School Financing, Teacher Qualifications, and Grades Taught, County School Districts, by Assessed Value of Property, 1964-65

Item	Unit	Assessed value of property per enumerate: Under $1,650	$1,650 to $2,499	$2,500 to $4,999	$5,000 and over
County school districts	Number	8	8	8	8
Tax assessment of property per enumerate	Dollars	1,193	1,907	3,204	6,144
Area, mean	Sq. miles	33	122	155	92
Persons 6 to 17 years old enumerated					
Per district	Number	166	343	279	160
Per square mile	Number	5.1	2.8	1.8	1.7
Expenditure per enumerate	Dollars	251	266	239	377
Indebtedness per enumerate	Dollars	67	139	191	109
Distribution of funds					
Teaching salary	Percent	56	55	58	45
Administration	Percent	2	2	3	5
Transportation	Percent	15	15	13	16
Plant operation	Percent	5	6	9	6
Payment on indebtedness	Percent	4	8	7	7
Other	Percent	18	13	10	21
Teacher qualification and grade load					
Salary of teachers, mean	Dollars	3,593	3,427	3,796	4,251
Teachers in first year of service	Percent	4	14	16	13
Teachers without a bachelor's degree	Percent	24	55	50	22
Grades taught per teacher	Number	2.0	1.6	1.5	2.2

tionship between financial resources and school quality is reduced among county districts by the presence of several very small districts with high costs per pupil and indicated poor quality. High expenditures occurred in several county districts having few pupils and located in sparsely settled areas.

When the need exists, borrowing for school improvement may be considered progressive. However, the poorer districts, those of the first quartile, had the lowest indebtedness per enumerate. The indebtedness increased as the tax assessment of property increased from the first to the third quartile; the fourth quartile with higher property values was exceptional, having less indebtedness per enumerate than the second quartile.

The districts of the first and second quartiles, with assessed valuations of less than $2,500 per enumerate, showed marked disparity between receipts and expenditures, with expenditures for the school year exceeding receipts. In the third and fourth quartiles, expenditures exceeded income only slightly (Tables 12 and 13). The lag in the tax system could account for some discrepancy between school revenues and expenditures for single years.[18]

[18] The tax rate is levied for application in the following year and local taxes collected in the spring are used mainly for financing the following school year. Assessed valuation of property in one year is for the next year's taxes.

The salary of teachers also varied with local tax resources. The districts of the fourth quartile paid their teachers an annual salary of 18 percent more than did those of the first, 24 percent more than the second, and 12 percent more than those of the third quartile. Since teacher salary is the largest single item of school expenditure it varied more closely with total revenues and total expenditures per enumerate than with assessed valuation and local revenues.

Teacher grade-load did not vary with the assessed value of property or local school tax revenues per enumerate. Districts in quartiles 1 and 4, representing the extremes in local taxable wealth, had much heavier teacher grade-loads than districts of the middle quartiles. Teacher grade-load seems to be the function of size and the presence of separate elementary schools, rather than of wealth differences: districts in quartiles 1 and 4 are smaller both in area and enumerates.

Neither college training nor teacher tenure varied consistently among county districts with local wealth taxed for schools. However, a pronounced difference in college training of teachers occurred between the middle and extreme quartiles of local tax wealth. Nearly 80 percent of the teachers in districts of quartiles 1 and 4 had a college degree, compared with approximately 50 percent of those in quartiles 2 and 3.

The proportion of school funds used for administration varied with the assessed value of property, the wealthier districts spending proportionately more for administration. This is supported among the quartiles in 5 of the 6 possibilities. All quartiles had lower percentage rates than the average for independent districts. Only one county district employed a superintendent with administrative responsibilities. Even provision for part-time administration by a principal is absent in many county district schools because the schools are too small and available funds too limited.

The proportion of funds used for pupil transportation showed no consistent correlation with the assessed value of tax property per enumerate. This means that the districts with high property value and local revenue spend more for transportation per pupil or transport more pupils than do districts of low tax wealth. The eight districts of low tax resources transported to schools within the district or in other districts 81 percent of their pupils at a cost of $58 per pupil transported; the eight districts of high tax property value transported 99 percent of the pupils in average daily attendance at a cost of $103 per pupil transported.

The percentages of funds used for plant operation and pay-

ment on indebtedness did not show any consistent variation with the assessed value per enumerate of tax property.

Type of School District, Financing, and School Operation

High School Services in District

Of the 32 county districts 11 made high school services available in the district for all of the area, 11 provided high school services for part of the area, and 10 had no high school. The two groups with full and partial high school service were quite similar in local and total revenue per enumerate, teacher salary, tenure, and grade-load. The first type included 16 high schools and 1 elementary school; the second, 12 high schools and 8 elementary schools. The 10 districts with 19 separate elementary schools but no high school differed among themselves and with districts of the other two types, being more thickly populated in the smaller areas,

Table 14. School Financial Resources and Operations, Teacher Qualifications, and Grades Taught, County School Districts, by Type of Schools, 1964-65

Item	Unit	High school services in district		
		For all pupils	Part coverage	No high school
County school districts	Number	11	11	10
Persons 6 to 17 years old enumerated per square mile	Number	1.8	2.9	3.1
Tax assessment of property per enumerate	Dollars	2,756	2,463	3,774
District tax rate for schools, mean	Mills	38	39	30
Local revenue receipts per enumerate	Dollars	91	90	124
State revenue receipts per enumerate	Dollars	155	169	167
Total revenue receipts per enumerate	Dollars	261	261	293
Sources of school support	Percent	35	34	42
Local	Percent	59	65	57
State	Percent	6	1	1
Federal	Percent			
Expenditure per enumerate	Dollars	278	300	290
Indebtedness per enumerate	Dollars	224	80	64
Distribution of funds	Percent	57	55	46
Teaching salary	Percent	3	2	5
Administration	Percent	16	14	15
Transportation	Percent	8	6	5
Plant operation	Percent	10	6	5
Payment on indebtedness	Percent	6	17	24
Other				
Teacher qualifications and grade load				
Salary of teachers, mean	Dollars	3,599	3,620	4,136
Teachers in first year of service	Percent	17	15	3
Teachers without a bachelor's degree	Percent	46	31	34
Grades taught per teacher	Number	1.4	1.5	2.8

having higher tax resources, and paying more for teachers in their small elementary schools.

The 11 districts providing high school services to pupils throughout the area had more enumerates per district but, since the area was much more extensive, the density of the school-age population was lower than in the other two types of districts (Tables 11 and 14). These districts have an advantage for school operation, in that they have more pupils than the other districts, but a disadvantage because of lower pupil density. However, school transportation costs were only slightly higher, because the cost of transportation for greater distances within the district was nearly offset by not having to provide transportation of pupils to high schools in other districts.

In spite of having more land area per school-age person, the 11 districts with high school services for all had an assessed property value about equal that of districts with partial high school coverage and about $1,000 less per enumerate that the districts with no high school, mainly because their tax property was of relatively low value per square mile. The districts of full and of partial high school coverage voted nearly the same tax rate and realized nearly the same local revenue for the schools. The lower amount of school funds received from the state by districts of complete high school services was compensated by higher federal benefits, and the two types of districts had equal total funds per enumerate ($261), which was $32 lower than received by districts of no high school.

In spite of much heavier indebtedness and payment on indebtedness, the districts with complete high school service paid teachers nearly as much salary as did districts with partial high school service. However, the annual salary of their teachers was approximately $500 lower than in districts providing elementary schools only.

The teachers in the districts with full high school coverage had somewhat lower tenure stability and less college training, despite the fact that all of the schools except one offered 12 grades of training and had more teachers at the high school level. The teacher grade-load was lower in these 11 districts than in districts with partial services and particularly lower than in those without a high school.

The principal characteristics differentiating districts with partial high school coverage from those with full high school coverage were their smaller size (less than half the area, five-sixths the number of enumerates, and hence higher density of school-age population), more state revenues, less federal funds,

one-third of the indebtedness per enumerate, proportionately more teachers with a college degree, and slightly more teachers who had served longer than one year. Their local and total revenues per enumerate and teacher salaries compared closely to those in the districts with high schools serving all of area.

The 10 districts with no high school contrasted sharply with districts that had a high school, whether of complete or partial coverage. These districts have fewer persons of school age, but since the area is much smaller they have more persons per square mile.

The districts with elementary schools only had $33 or 38 percent more local revenue per enumerate than did districts with a high school. Their assessed tax property exceeded by nearly $1,200 the value in the other districts. This means that, with an exceptionally low tax rate for schools and with more enumerates per square mile, the value of property per square mile must be substantially higher. The elementary teachers within the districts received $500 more annually than the elementary and high school teachers in the other two types of districts. Nearly all of the teachers had taught more than one year in these elementary schools, and 66 percent (above average for all teachers in county districts) had been graduated from college with a bachelor's degree. As is typical of small elementary schools the teachers had few pupils, but their teaching effort was spread over subjects in nearly three grades.

District Type by White and Nonwhite Pupils in Area

Seventeen districts with 19 12-grade schools and 12 separate elementary schools had only white pupils living in the district, while 15 districts with 9 12-grade schools had 16 elementary had both white and nonwhite pupils (Table 15).

The districts with only white pupils are located in the hill subregion of the state. Their area was about double and the school-age population approximately one-eighth more than in the districts of both white and nonwhite pupils and the density was much less, about three-fifths that of the biracial districts. In spite of their extensive area per person of school age, in the districts with only white pupils the assessed value of tax property was $2,000 per enumerate less than in districts of both white and nonwhite pupils. With low property value and average tax rate, the yield in local revenues was about 20 percent under that of the other districts. Revenues received from the state also were lower; the $31 disparity in total revenues per persons of school age would have

Table 15. School Financial Resources and Operations, Teacher Qualifications, and Grades Taught, County School Districts, by White and Nonwhite Pupils in Districts, 1964-65

Item	Unit	Pupils in district: White only	Pupils in district: White and nonwhite
County school districts	Number	17	15
Persons 6 to 17 years old enumerated per square mile	Number	1.9	3.3
Tax assessment of property per enumerate	Dollars	2,755	4,745
District tax rate for schools, mean	Mills	35	38
Local revenue receipts per enumerate	Dollars	88	112
State revenue receipts per enumerate	Dollars	155	173
Total revenue receipts per enumerate	Dollars	255	286
Sources of school support			
Local	Percent	34	39
State	Percent	61	61
Federal	Percent	5	0
Expenditure per enumerate	Dollars	270	313
Indebtedness per enumerate	Dollars	171	91
Distribution of funds			
Teaching salary	Percent	56	52
Administration	Percent	2	4
Transportation	Percent	16	14
Plant operation	Percent	5	5
Payment on indebtedness	Percent	6	6
Other	Percent	15	19
Teacher qualifications and grade load			
Salary of teachers, mean	Dollars	3,350	3,932
Teachers in first year of service	Percent	15	8
Teachers without a bachelor's degree	Percent	49	24
Grades taught per teacher	Number	1.7	1.7

been greater except that these districts received a larger share of funds from federal sources.

The 17 county districts with white pupils only relied to a greater extent on the 12-grade schools located in the district for high school training. Yet the annual teacher salary fell $600 under that of the biracial districts, and one of every two teachers had not received a bachelor's degree, compared to 24 percent of those in the white-nonwhite districts. Teacher tenure was somewhat less stable in districts with white pupils only.

The districts of white and nonwhite pupils had half the area, somewhat fewer pupils, but much higher density than the other districts. But the school-age density for each race was less than in the other type of districts. The white-nonwhite districts relied to a greater extent on high school training contracted with independent districts. The districts with a preponderance of nonwhite population tended to furnish 12-grade schools for the nonwhites in the district and transport the white pupils elsewhere. Smaller districts in the group had separate elementary schools for white

and nonwhite pupils within the district and depended on independent districts for all high school attendance. Districts with mainly white pupils had a 12-grade school within the district for white pupils and relied on high schools elsewhere for nonwhite pupils. Thus the higher expenditure for schools is spread and does not necessarily result in better schools than in districts with lower revenues and white pupils only.

Local Revenue and School Operation

Table 16 furnishes the basis for relating variation in local school revenues to school operation among the county districts, and shows the setting of the county districts, by variation in local financial resources, among the independent districts of the same counties. It indicates how county districts of low, intermediate, and relatively high local school revenues compare to the independent districts to which they would be annexed if consolidation took place. Since school revenues from local property and the assessed value of property tend to be closely correlated, local revenues may be considered to reflect the financial resources of the district.

Relationship of Factors

Of primary importance is the wide variation in revenue receipts per enumerate even as shown on a quartile basis — the absolute range is much wider. The seven districts of the first quartile, all with less than $50 per enumerate, averaged only $36, or about one-sixth the value of districts in the fourth quartile. Because the tax rate helps determine the amount of funds derived, local school revenues, reflecting both effort and resources, prove more closely related to school operation measures than do property values alone.

The three spatial factors — size of district in area and in school-age population and density — all tend to be correlated to local revenues on the per-pupil basis, the first positively and the second and third inversely. Districts in the first quartile were somewhat larger than those in the second, and districts in the fourth quartile, with relatively high local school revenue, averaged twice the size of those in the second. The area of districts in the quartiles was positively related to school revenue from local sources in five of the six possibilities. Size of district by school-age population decreased consistently from 282 in the first quartile to 185 in the fourth, and density from 3.9 school-age persons per square mile in the second to 1.5 in the fourth. The density was lower in the first than in the second quartile.

The state provided only $9 more per enumerate for schools

in the first quartile which had $36 from local property tax than for schools in the fourth quartile with $201 from local tax; state funds therefore did not significantly equalize variation in local tax resources among the county districts. Variation in local revenues reflected closely variation in total funds per enumerate for schools.

The values indicating teacher qualification and teacher grade-load also tended to be correlated with the variation in local tax revenues for schools. The annual average salary of teachers rose from $3,428 in the low-revenue districts of the first quartile to $4,105 in the high-revenue districts of the fourth. The relationship was inverse for the tenure indicator: 97 percent of teachers in the first quartile had taught previously in the school, compared with 83 percent in the relatively high-revenue, high-salary fourth quartile. The percentage of teachers with a bachelor's degree rose from 58 percent in the first quartile to 72 percent in the fourth. The teacher grade-load, heavy in every quartile, dropped from the first to the third but rose in the fourth.

Setting of the County School District

The second unit of Table 16 shows the milieu of county districts classified by the variation in school funds derived from local property tax. Each county district in each quartile is in a setting of between 4 and 5 independent districts, and the comparison that follows applies to that ratio. The independent districts in all quartiles tended to have higher positive values for size, tax property, local revenues for schools, and teacher qualification. The values for the adjacent independent districts varied concomitantly with those of the county districts, but the range among the quartiles was not so wide as the comparable values for the county districts.

With reference to size and density of the school-age population, in the first quartile the independent districts had one-third more area than the average county district and this narrowed to one-fifth larger size in the fourth quartile. Greater differences occurred in the number of persons of school age in residence in the two types of districts. Independent districts in the same counties as the poorer county districts of the first quartile had five times more persons of school age. In both types of districts the figure dropped somewhat in the higher quartiles and independent districts in the fourth quartile had 1,044 persons of school age as compared to 185 in county districts. Independent districts had from four to five times as many enumerates per square mile as county districts.

Independent districts tended to have higher assessed valuation

Table 16. Size of District, Financial Resources and Operations, Teacher Qualifications and Grades Taught, County Districts Compared with Independent Districts in Same Counties, by Local Revenue per Enumerate in County Districts, 1964-65

Item	Unit	Local support per enumerate in county districts			
		Under $50	$50 to $79	$80 to $139	$140 and over
County school districts					
School districts	Number	7	8	9	8
Area, mean	Sq. miles	97	64	112	124
Persons 6 to 17 years old enumerated	Number	282	248	239	185
Per district	Number	2.8	3.9	2.1	1.5
Per square mile					
School financial resources					
Tax assessment of property per enumerate	Dollars	1,524	1,813	3,076	5,832
District tax rate for schools, mean	Mills	33	39	36	37
Local revenue receipts per enumerate	Dollars	36	66	114	201
State revenue receipts per enumerate	Dollars	172	157	159	163
Total revenue receipts per enumerate	Dollars	213	224	286	376
Teacher qualifications and grade load					
Salary of teachers, mean	Dollars	3,428	3,453	3,835	4,105
Teachers in first year of service	Percent	3	12	14	17
Teachers without a bachelor's degree	Percent	42	41	38	28
Grades taught per teacher	Number	2.0	1.6	1.4	1.9
Independent districts in same counties					
School districts	Number	30	37	39	34
Area, mean	Sq. miles	132	139	144	147
Persons 6 to 17 years old enumerated	Number	1,414	1,168	1,044	1,044
Per district	Number	10.7	8.4	7.2	7.1
Per square mile					
School financial resources					
Tax assessment of property per enumerate	Dollars	3,143	3,356	3,789	3,895
District tax rate for schools, mean	Mills	40	40	41	44
Local revenue receipts per enumerate	Dollars	120	131	145	152
State revenue receipts per enumerate	Dollars	121	120	126	130
Total revenue receipts per enumerate	Dollars	245	256	273	282
Teacher qualifications and grade load					
Salary of teachers, mean	Dollars	4,041	3,885	3,880	4,800
Teachers in first year of service	Percent	10	14	15	15
Teachers without a bachelor's degree	Percent	30	31	29	18
Grades taught per teacher[1]	Number	....	....	....	....

[1] Data were not available.

of property and local revenue. In this respect the wealthier county districts of the fourth quartile were exceptional, having more valuable property and lc al revenue per enumerate than the adjacent independent district. State revenue received by both types of districts had only slight inverse correlation with local revenues,

but state support per enumerate was somewhat lower for independent districts than for county districts in all quartiles.

Independent districts paid higher teacher salaries than county districts in every quartile, the differential extending from $45 annually to $695. Teacher tenure was slightly more stable among county districts, as indicated by the fact that 88 percent of the teachers had taught in the school prior to the current year, compared to 86 percent for independent districts. The greatest difference in teacher qualification was in the proportion who had been awarded a bachelor's degree, extending from 70 to 82 percent among independent districts and from 58 to 72 percent among the county districts from first to fourth quartiles. Teachers in the independent districts had more college training even when salaries were at similar levels. With larger schools and less per pupil transportation cost, independent districts appear able to translate total funds more effectively into school operation.

The difference between the two types of districts. as ranked by revenues of the county districts, in tax property and local revenue per enumerate should be emphasized because it probably is one of the main barriers to acceptance of county districts by independent districts in any proposal for consolidation. The county districts in the first three quartiles had markedly lower property values and local revenues than did the independent districts. The poorer the county district, the greater was the differential in these values. Only in the fourth quartile did county districts exceed independent districts in local revenue per enumerate, by $49.

Summary

Twenty-four county districts had an average assessed value of tax property of less than $6,000 per square mile; eight districts approached $11,000. The districts with relatively high wealth had the lowest number of school-age persons per square mile for whom to provide schools. As a result, eight county districts had a tax base per enumerate of less than $1,200 of assessed property value, while eight had more than $6,000. The correlation of tax property values with revenues extended to the salary of teachers, with 16 districts in the two quartiles of low-tax property having 20 percent lower teacher salaries than did eight wealthier districts.

Local school revenue per enumerate varied somewhat more closely with teacher salary and college training than did property values. As local revenues varied from $36 per enumerate in the lowest quartile to $201 in the highest, total revenues varied from $213 to $376, teacher salaries from $3,428 to $4,105, and teachers with a bachelor's degree from 58 percent to 72 percent.

The 11 districts with high schools serving all the pupils of the area were quite similar to the 11 with partial high school coverage in tax resources and in local and total revenue receipts per person of school age. Teacher salaries were nearly the same, but more college training was represented among teachers in county districts with partial high school services. Ten districts with no high school in the area had more substantial tax resources and revenues than districts of full or partial high school services, and paid teachers a higher salary, but teacher effort, confined to elementary schools, was spread over more grades and subjects.

The districts with white pupils only contrasted sharply with white-nonwhite districts in that they had less adequate financial resources. The biracial districts had fewer high schools within the district and made more contracts with independent districts for high school training. The biracial districts replaced fewer teachers each year, paid higher salaries, and employed more teachers with college training.

The county districts are in counties with an average of four to five independent districts. The school financial and operational values of the adjacent independent districts tended to be correlative with, but higher than, those of the county districts. Several county districts have windfall financial resources that exceed the local revenue and tax property value of the independent districts of the same counties. But the adjacent independent districts in all quartiles formed on the basis of local revenue of county districts were much larger in area and school-age population, paid teachers a higher salary, and employed more teachers with college training. These measures indicate that county districts, rich or poor, would benefit from annexation to adjacent independent districts.

SCHOOL QUALITY AND ENROLLMENT

A basic test of the efficiency of a school is the extent to which pupils are encouraged to continue study through high school. The measure employed is the ratio of high school enrollment to that in elementary grades 5 to 8. Five years of enrollment are covered to increase validity and offset the chance of fluctuation of a single year. The rates of continuance of the fifth- to eighth-grade enrollees in high school are tested for relationship to the following aspects of school operation: expenditure per person of school age in the district; size of district as measured by enrollment; teacher qualifications as indicated by salary, college training, and tenure; type of school in district; and rating of high schools by the Arkansas State Department of Education.

Expenditure per Person of School Age

The tendency of pupils in the upper elementary grades to continue their training in high school proved to be significantly related to expenditure per pupil. Enrollment in high school as a ratio of enrollment in grades 5 to 8 was differentiated positively by five of the six possibilities among quartiles ranked from low to high expenditure (Table 17). The high school enrollment rate was lower in the fourth quartile of high expenditure, which contained two relatively large districts having white-nonwhite pupils and elementary schools only. The enrollment ratio for the other five districts in the quartile of high expenditure was 86 percent, exceeding that in any other quartile.

Table 17. Continuation of Elementary School Enrollment in High School, by Expenditure per Enumerate

Expenditure per enumerate[1]	Districts[2]	Average annual enrollment per district, 1957-58 to 1961-62		
		Elementary, 5 to 8 grades	High school, 9 to 12 grades	Ratio
	Number	*Number*		*Percent*
$195 to $226	8	113	67	59
$229 to $276	8	115	72	63
$280 to $333	8	72	54	75
$361 to $471	7	61	42	69
Total or average	31	91	59	65

[1] In five districts in which enrollment exceeded enumeration considerably, enrollment was substituted for enumeration as the basis for computing the expenditure rate. These districts received enrollment from other areas.

[2] One county district is not included in this and subsequent tables because no school plant was in operation in the area and no record is available for pupils transported away.

The principal differentiation came between the 16 districts with an expenditure per enumerate of less than $280 and a high school enrollment of 61 percent and the 15 districts with expenditure of more than $280 and an enrollment of 72 percent. More districts of the second group paid teachers above average salaries and retained an above-average number who had been graduated from a college.

Size of District

The schools in all county districts are of substandard size. The seven districts with largest enrollment (from 308 to 763 pupils) were segmented, two having a high school for nonwhite pupils and transporting white pupils to schools in one or more in-

Table 18. Continuation of Elementary School Enrollment in High School, by Enrollment per District, School Rating, and Type of Schools in County District

Measure	Districts[1]	Average annual enrollment per district, 1957-58 to 1961-62		
		Elementary, 5 to 8 grades	High school, 9 to 12 grades	Ratio
	Number	*Number*		*Percent*
Enrollment per district				
19 to 85	7	32	21	66
114 to 180	8	69	48	69
195 to 250	9	82	57	69
308 to 763	7	187	115	61
High school rating				
Grade schools only	9	64	35	55
X[2]	2	58	29	50
C	14	113	77	68
A, B, BC[3]	6	91	64	70
Type of schools in district				
White only	17	95	69	73
High school serving all of area	11	103	83	77
High school serving part of area	2	79	48	60
Elementary school only	4	28	17	61
White and nonwhite	15	80	44	55
High school serving part of area	9	82	46	56
Elementary school only	6	78	41	53

[1] See Table 17, footnote 2.

[2] X denotes the two high schools that did not receive a rating during 1964-65.

[3] Only one high school in the county districts received an A rating. BC represents a district with two high schools. The high schools in each of the other districts with more than one school had the same rating.

dependent districts while the other five altogether had ten 12-grade schools and seven elementary schools (Table 18). In addition two of the five districts with plural high schools sent some of their high school enrollment to schools in other districts. Therefore, size of separately operating schools is not closely indicated by enrollment in the entire district; the districts that are larger in area and enrollment were more segmented than small districts. This perhaps is an important reason why size of district as measured is not closely related to the tendency of pupils to remain in school until completion.

The 17 districts of intermediate size (from 114 to 250 pupils) had a higher rate of elementary-high school enrollment continuation than the smaller and larger districts. The districts in the fourth quartile with largest enrollment had the lowest persistence of pupils in high school. When the two districts in this group with mainly nonwhite pupils and no school in the area for white pupils were deleted, the high school enrollment rate for the other five districts with white pupils only and 10 high schools exceeded that in all groups of smaller size.

School Rating

Each year the schools in Arkansas are rated NC, A, B, and C according to the quality of the school, NC being the highest rating obtainable. Schools not qualified for a rating are designated as X. In the following analysis the county districts are classified by these ratings, while the districts with no high school are placed in a single category.

School ratings and continuance of elementary school enrollment in high school appeared to be directly related; the higher the school rating the greater the percentage of pupils remaining in school (Table 18). The nine county districts with only elementary schools and the two with an unrated high school had low high school enrollments. Fourteen districts with a high school of C rating had an enrollment percentage of 68; five of B or BC rating had a percentage of 70. The one district of A rating had an enrollment of only 39 percent. The white pupils of this district attended school in other areas; the one school in the district extended over 12 grades, served the nonwhite pupils of the area, and received over two-thirds of its enrollment from other districts.

Four of the five districts of B rating and highest enrollment had a 12-grade school serving all of the area with no dependence on schools in independent districts. The other district had partial service, maintaining one high school but transporting its nonwhite pupils to school in other districts. Teachers in the five districts had lower teaching load, more college training, and longer tenure.

Type of Schools in County District

The county districts were grouped into areas having only white pupils and having both white and nonwhite, as well as into sub-groups according to whether the high schools served all of the district area or part of the area, or were lacking. All three subgroups apply to districts having schools serving only the white population; two apply to the white-nonwhite districts. The biracial districts did not have schools that serve all white and nonwhite pupils within the district.

There was a direct relationship between continuance of enrollment in high school and type of school. Among the districts having schools for white pupils only, the high school enrollment rate was higher in districts having high schools serving all of the area than in districts having a high school of partial service and those having only elementary schools (Table 18). All of these districts had a higher rate of high school enrollment than districts

serving both white and non-white pupils.

Among the white-nonwhite districts the difference in high school enrollment between those with elementary schools only and those with a high school covering part of the area was not significant. However, among the nine districts of partial white-nonwhite service, three that served white pupils mainly with a high school for whites had a high average enrollment rate of 84 percent; the six serving mainly nonwhite pupils and with no internal school for whites had an enrollment rate of 49 percent.

Two factors are apparent when districts are classified by the type of high school services provided within the district: (1) the disruption caused by pupils having to change schools, and (2) the biracial complication. The latter is related to the former, for in biracial districts change of schools occurs from elementary to high school and from one district to another, for white pupils or nonwhite pupils or both, more commonly than in districts of a single race.

Teacher Salary and High School Enrollment

Teacher salaries in the county districts varied widely. The districts in the first quartile paid teachers an average annual salary of $3,083; those in the fourth, $4,404.

In Table 19 the rate of high school enrollment is seen to change among the districts grouped by the salary of teachers, but no consistent correlation is noted. The seven districts of extremely low salary had the second highest enrollment in high schools.

The reason for the reversal of the hypothesized relationship lies in the way other important enrollment factors are distributed among the quartiles. Of the seven districts of the first quartile, six had at least one 12-grade school, and three of these served all of the pupils residing in the area. These three plus another which provided high school training for a few white pupils in another district had above average high school enrollment rate. Very little shifting from one school to another and from one district to another was required for pupils to continue their training in high school.

The eight districts in the fourth quartile, with above median salaries for teachers, had the lowest high school enrollment ratio. The enrollment rate tended to be determined by the kinds of schools found in the district. Four districts with a 12-grade school had an enrollment rate of 75 percent; three with elementary schools only, and another with white-nonwhite pupils and pro-

vision for outside high school enrollment for white pupils had a high school enrollment of 48 percent.

To further test for the influence of type of school on the relationship of teacher salary and enrollment the districts were subdivided. The first group was comprised of districts with a 12-grade school serving white or mainly white population and requiring incidental shifting of pupils from one school to another in order to acquire high school training. The second group comprised the remaining districts with elementary schools only, or with a high school of partial coverage and serving mainly a nonwhite population. The high school enrollment rates for the former group, by quartiles from low to high teacher salary, were 69, 76, 83 and 75, all relatively high. For the latter group, the corresponding enrollment rates were 64, 55, 53, and 47 percent with consistent inverse correlation of enrollment and teacher salary. Nine of the 15 districts in the second group had elementary schools only and paid teachers above average salary rates for county districts. Six of the nine districts fell in the second and third quartiles, with above average salaries, and only one of the nine, with a high school enrollment of 82 percent, exceeded the median (71 percent); the others ranged from 19 to 64 percent.

Teacher Tenure and High School Enrollment

It was hypothesized that districts with better qualified teachers would hold more pupils in school until their graduation, and that higher salaries would attract teachers of more training and retain them longer in the schools, thus indicating their qualification. The preceding section indicated some positive correlation of teacher salary and high school enrollment only in those districts that had rather complete (for area and school-age population) school services through 12 grades. This section relates teacher tenure to high school enrollment and to other factors that possibly influence enrollment.

Teacher tenure is indicated roughly by the percent of teachers in their first year of service in a school. Sixteen of the 31 county districts did not employ a new teacher, all teachers having taught in the same school the preceding year (Table 19). One district appointed an exceptional number of first-year teachers, approximately three-fourths of its total; the new appointments in other districts with first-year teachers ranged from 33 to 5 percent.

No consistent correlation is evident between teacher turnover and high school enrollment. The group of 16 districts with

no new teachers had a high school enrollment rate of 66 percent and the other 15 districts had a rate of 64 percent.

The 16 districts with no change of teachers and average high school enrollment had characteristics with negative and positive influence on enrollment. The smaller districts (all except one of those with less than 100 enumerates and all except 6 of 17 districts with less than 200) occurred in this group. Concomitant with smallness is the heavier than average grade load of teachers. Also, 7 of the 16 districts had only elementary schools, depending on schools in independent districts for high school enrollment, meaning that pupils must change to outside schools to obtain training beyond the elementary grades. All except one of these had much below average high school enrollment. Salary rates among districts with no teacher change fell evenly on both sides of the median. Of possible positive influence on continuation of enrollment from elementary to high school is the college training of teachers. Eleven of the 16 districts had median or above median percentage of teachers with a college degree.

Five districts in which replacement rate of teachers was from 22 to 27 percent had a high ratio of grade school pupils continuing their training in high school. All of these districts had a 12-grade school serving all of the district with the exception of two in which a small number of pupils were transported elsewhere. Three of these five districts paid above-average teacher salaries and all had relatively light teacher grade-load.

Teacher Training and Enrollment

Another measure hypothesized as an indicator of teacher qualification and likely to be positively related to the extent pupils continue enrollment in high school is the proportion of teachers in the district who were graduated from college. The range by districts extended from five districts with all teachers having a bachelor's degree to one district with two elementary schools and no teacher having a degree. Fewer than 30 percent of the teachers in seven districts had completed their college training (Table 19).

A low inverse correlation between the college training of teachers and the high school enrollment of the pupils was indicated. The high school enrollment rate was lowest in the five districts in which all teachers had a college degree. These were smaller districts in which high school attendance was dependent mainly on facilities in other districts. This further indicates the outstanding importance of the type of school in a district as a positive factor in high school enrollment.

Table 19. Continuation of Elementary School Enrollment in High School, by Average Salary of Teachers, Teacher Tenure, College Training of Teachers, and Number of Grades Taught per Teacher

Measure	Districts[1]	Average annual enrollment per district, 1957-58 to 1961-62		Ratio
		Elementary, 5 to 8 grades	High school, 9 to 12 grades	
	Number	*Number*		*Percent*
Average salary of teachers				
$2,837 to $3,307	7	103	70	68
$3,320 to $3,642	8	88	60	68
$3,657 to $3,887	8	62	43	70
$3,902 to $5,544	8	113	60	60
Teachers with more than 1 year's service (percent)				
29 to 71[2]	5	84	46	55
73 to 78	5	108	87	80
82 to 95	5	175	103	59
100	16	63	41	66
Teachers with a bachelor's degree (percent)				
30 or less	7	114	76	67
37 to 67	9	100	67	67
71 to 89	10	88	57	64
100	5	50	27	55
Grades taught per teacher				
0.6 to 1.2	8	112	68	60
1.5	4	122	99	81
1.7 and 1.8	6	83	63	76
1.9 to 2.5	7	89	48	54
2.7 to 6.0	6	53	32	60

[1] See Table 17, footnote 2.

[2] In four of these districts the percent ranged from 67 to 71; in the other the rate was only 29 percent.

The five districts in which all teachers had a college degree had a much lower high school enrollment rate than districts of the first group in which 30 percent or fewer teachers had a college degree. The low enrollment probably occurred because four of the districts were below median size, and all were dependent on outside services for some or all of the high school attendance of their pupils. Two of the five districts had elementary schools only; although three had a high school, none offered full 12-grade training for both white and nonwhite pupils.

The opposite group in which a third or fewer of the teachers had a college degree had relatively high enrollment. The other indicators of teacher qualification also were low for this group and would be expected to discourage high school enrollment. Along with the low extent of college training only one district paid salaries above the median rate; teachers in only one district taught a lighter than median grade-load and in only three of the eight was tenure above average stability. Two factors stand out in contradiction to teacher qualification as possible determinants of the relatively high rate of pupil continuation in school: size of

district by persons of school age and type of schools in the district. Five of the seven districts were of above median size; six had a high school, and three of these offered 12 grades of training to all pupils in the district. In these districts only a very small proportion of pupils needed to change schools in order to attend a high school.

Grades Taught per Teacher

In the small schools characteristic of county districts the spread of the teacher's effort may best be indicated by the number of grades taught. The pupil-teacher ratio in the county districts is not valid as an indicator of school quality because in small schools the teacher has to cover several age levels among a small number of pupils.

Among the county districts the range of the teacher grade-load extended from one district with a teacher for six elementary grades and one with three elementary schools of eight grades and a total of four teachers (6.0 grades per teacher) to a district with a 12-grade school and 22 teachers (0.55 of a grade per teacher).

The number of grades taught was closely associated with type of school and tended to be related to high school enrollment. All schools in the districts in which the number of grades per teacher ranged from 2.7 to 6.0 were elementary, and only one of the six districts which were entirely dependent on other districts for high school enrollment had an above average enrollment rate. The other three districts with elementary schools only (two with a heavy grade-load and one with a relatively low grade-load) had much below average high school enrollment. One district of this group with white pupils only, three elementary schools, and four grades per teacher had an exceptional high school continuation rate of 82 percent.

Districts with high enrollment tended to have median or lower teacher grade-load, to have a high school, and to have only or mainly white population. Of the 18 districts with a teacher load of 1.8 grades or less, 15 had above average high school enrollment and conformed to this combination.

The seven districts with heavy teacher load of 1.9 to 2.5 grades and a low enrollment continuation rate of 54 percent included two with a 12-grade school serving all of the area and much above average high school enrollment, thus conforming to the usual relation of type of school and enrollment in spite of the high teacher grade-load.

It follows that the number of grades taught per teacher and the type of school are two aspects of a holistic complex that is closely related to the tendency of elementary school pupils to continue their training in high school.

Summary

This section related indicators of school quality to continuation in high school of elementary school pupils in grades 5 through 8. The continuation rate ranged from a low of 19 percent to a high of 93 percent. The districts with relatively high expenditure had the higher continuation rates.

The size of the county district, as measured by enrollment, was not closely related to enrollment continuation in high school. Large districts tend to be segmented; therefore, the size of separately operating schools is not closely indicated by enrollment in the entire district.

The rating received by a school, teacher grade-load, and type of school were positively correlated with enrollment continuation. Type of school is based on the presence of white or both white and nonwhite pupils in the district and whether pupils have to shift from one school to another in order to acquire high school education. Districts with a white population and a 12-grade school serving all of the area had relatively high enrollment rates compared to districts of both white and nonwhite pupils and those that depended on other districts for some or all of the high school attendance.

Neither teacher salary nor teacher turnover, because of counteracting factors, appeared significantly related to the high school enrollment rates.

The training of teachers and elementary-high school enrollment rates had a low inverse correlation. Teachers with a college degree received higher salaries and had more stable tenure. However, teachers with such factors tended to be located in smaller districts that did not contain a high school.

SUMMARY AND CONCLUSIONS

The county district had its origin in the School District Re-Organization Act of 1948. The act required that within each county all districts with less than 350 persons of school age, 6 to 17 years, as of March 1 of the following year be combined to form a new school district which would be administered by the county school

supervisor. During the grace period, November to March, widespread consolidation of school districts occurred, but there remained one or more districts in 42 counties that did not have 350 enumerates and that were combined in each county to form the so-called county school district. The act authorized and directed the County Board of Education, with the consent of the board of the receiving district, to annex all or portions of the county district created by the act if it were found that the area could be served more effectively by other districts. But in spite of the directive for consolidation the 42 districts of 1949 had been reduced only to 32 (which are covered in this study) by the 1964-65 school year. Over this period several of the 32 had been reduced in size by annexation of portions of the area to the independent districts. By the 1967-68 school year the number of districts had been reduced to 26.

The county school district is comprised of areas left over after the effective date of the reorganization act and therefore tends to be fragmented territorially and in respect to local community alignment. In 1964-65, 9 of the 32 districts contained 2 to 7 noncontiguous areas, and 18 had parts that fell into 2 to 9 local community trade areas. Those that were not divided were so small as to be considered fragments. The location of county districts tended to be peripheral to community trade areas; none contained the main trade center of the community. Twenty-one of the districts had no village population. The average county districts had one-fifth as many persons of the school ages 6 to 17 years, and three-tenths as many per square mile, as the independent districts in the same counties.

As a result of these factors, a larger percentage of pupils must be transported to school within the districts and to schools in other districts at higher cost per pupil. Twenty of the 32 districts required annual agreement with administrators in independent districts for acceptance of a part or all of their high school attendance. Because of area spread and low density, and in spite of relatively few pupils and the use of outside services, 13 districts had more than one school. These 13 had a range of 2 to 6 schools, for a total of 24 elementary and 14 12-grade schools. The schools were scattered and operated relatively independent of each other within the anomalous district.

In spite of the composite nature of the county district their average area, 100 square miles, was 41 square miles less than that of the independent districts. The range in size was extensive, from 21 square miles for the average of eight districts in the first quartile to 222 in the fourth quartile. The eight districts of only

21 square miles yielded a local revenue of only $55 per enumerate as a result of a low tax rate, relatively high density, and low tax property value per enumerate. However, the tax property was valued somewhat above average per square mile of area. These districts also were smallest among the quartiles in the number of persons per district and therefore in total local revenues. The schools were necessarily small and greater dependence was made on other districts for high school attendance. Three of the small districts had only elementary schools; four offered 12 grades but transported some white or nonwhite pupils to other districts. None had a complete system for all pupils within the small area.

Density of school-age population is more consistently related to local school tax resources, transportation, and type of school in the district than to size of district, whether expressed in area or number of enumerates. The 2.4 average number of school-age persons per square mile, compared to the independent district average of 8.2, represents a range by quartiles of 1.1 to 7.3. The low-density districts of the first quartile had much more local revenue ($146 per enumerate) than the high-density districts ($87 per enumerate). The value of tax property per square mile was less (about one-third of that in the high density districts), yet the area of the districts of low density was much more extensive. The proportion of pupils furnished school transportation and resultant costs are higher where the area is extensive and the population sparsely distributed, although in the low-density districts nearly all of the transportation occurred within the area. All except one of the eight districts in the first quartile of low density had a high school, five with the school serving all pupils in the district and two requiring transportation elsewhere for some high school attendance.

The value of tax property per enumerate was 22 percent lower and local school revenue 39 percent lower in county districts than in independent districts of the same counties. However, much variation occurred in the ability of county districts to support schools from local tax resources. The assessed value of tax property extended from eight districts of the first quartile that averaged approximately $1,200 to the eight in the last quartile with more than $6,000. Between these extremes local revenue varied from $43 to $206. The difference in tax rate by assessed property values was not directional and did not significantly affect the close correlation of value of tax property and local revenue for schools. State funds reduced the difference in school revenue between extreme quartiles of property values and the amount of total funds per enumerate extended from $236 to $375. Although

effort is made on the state level to equalize teacher salary, the average annual salary for classroom teachers extended from $3,593 in the eight districts of lowest assessed value of tax property to $4,251 in the eight districts of highest value.

The county school districts are located in counties averaging between four and five independent districts. Seven county districts with extremely low local tax receipts of $36 per enumerate and total receipts of $213 were in counties with 30 independent districts averaging, on the same basis, $120 local and $245 from all sources. Only in the fourth group of high local tax resources did the eight county districts exceed the independent districts in both local and total revenue in proportion to persons of school age. Even in this group the county districts, with only one-sixth the average number of enumerates, small schools, and dependence on independent districts for much of the high school attendance, had teachers of less college training and paid them 17 percent less salary than did the independent districts. The financial and operational measures of the county districts are correlative with those of the independent districts of matching location, but indicate generally a much lower level of adequacy. County districts, however varied in local tax resources, would benefit in respect to school operation by annexation to independent districts.

Even among county districts that are generally disadvantaged by size, in the dispersion of the school-age population that is present, and in identification with the community, much variation in the rate of high school enrollment occurs. In ten districts, over a 5-year period, the ratio of high school enrollment to that in grades 5 to 8 exceeded 80 percent; in seven other districts it fell below 50 percent. The districts of low high school enrollment required more shifting of pupils from the home school to schools in other districts. A majority had elementary schools only, teacher effort was spread over two or more grades, and white and nonwhite pupils lived in the district. Most of the districts with relatively high enrollment rate had contiguous territory, a single school of 12 grades with a school rating above C, and did not require that any of the pupils be transported outside the district for high school training. The rate of high school enrollment did not vary with salary, college training, or tenure of teachers. Some districts with only elementary schools apparently must pay above average salary in order to attract teachers, and the factors in enrollment already mentioned offset in effect the possible teacher influence on the continuation of pupil enrollment in high school.

With the persistence of so many county districts (26 at the beginning of the 1967-68 school year) question arises as to how they remain in the face of obvious need for combining them with

independent districts. Economic barriers to consolidation exist, and these may cause resistance to consolidation on the part of the county districts and objection to receiving them on the part of the independent districts.

On one hand, the people of the county districts appear to be more concerned with the lower tax rate for schools (which prevailed in 26 of the 32 districts studied) and the rise that would occur if they were absorbed by the independent districts. Several county districts had windfall revenue from exceptional amounts of federal lands within the area, an advantage that would be diffused in the combined district.

On the other hand, the independent districts may consider the difference in the assessed value of tax property (which was lower per enumerate in 22 of the 32 county districts). This would be unchanged by consolidation and the local revenue per enumerate from the annexed area would be lower than that prevailing in the independent districts. The higher amount per enumerate of state funds received by 30 of the 32 county districts would not be received in equal amount by the combined districts, for the formula for distribution applies to pupils equally and to the district as a whole. Transportation cost generally would be increased in the receiving district, because of low pupil density and the distant and peripheral location of most county districts. The "economy of scale" would be expected to reduce the per pupil cost of transportation from the county districts over that existing before the consolidation, but for the independent districts the per pupil cost would rise.

Thus if the economic motive were entirely determinant no combination would occur, since either the county or the independent district can construe economic advantage in maintaining the existing status.

Another probable important reason for the failure of the county districts to initiate the move for consolidation is the fragmentary nature of most and their lack of identity as a social group, circumstances under which it is difficult to achieve concerted interest and consensus among disparate parts. The members of the school board within the county district are scattered, and the board lacks the authority of the overall board of county schools to execute, with the board of the receiving district, the annexation of county districts. The county school supervisor, as the principal administrative officer of the county district, is in position to exert primary influence toward the elimination of the county district; however, this would remove part of the justification of his office. The conflict between job maintenance and public interest pro-

bably has been sharpened by the permissive legislation for the abolition of his office, which has occurred in several counties containing a county district.

It should be recognized that consolidation of county with independent districts would not solve all problems of county districts. But it would achieve for such areas more identification with the local community, for all pupils direct access to a 12-grade school, for the voters participation in the control of the unit which then becomes the home district, and for pupils the realization of advantages of larger school operation. Adjustment in school organization within the enlarged area would be facilitated since the incorporated area becomes a part of the single administrative unit.

Beyond their unique origin, administrative organization, and fragmentary nature, county districts share the problems of small independent districts, to which much of the findings of this report also apply.