

**A STUDY TO DETERMINE THE
LOCATION OF PERMANENT SCHOOL
CENTERS IN FENTRESS COUNTY**

J. WILLARD CROUCH

To the Graduate Council:

We are submitting herewith a thesis written by J. Willard Crouch entitled "A Study to Determine the Location of Permanent School Centers in Fentress County." We recommend that it be accepted for six quarter hours' credit in partial fulfillment of the requirement for the degree of Master of Arts with a major in education.

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A STUDY TO DETERMINE THE LOCATION OF
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CHAPTER I

STATEMENT OF THE PROBLEM

If the school is to serve as a major social institution in a democratic society, each community should have available for effective use a school plant not only adequate for present needs but adaptable to future needs in the light of expanding school services to meet the demands of an improved educational program. This study has been based on this fundamental concept and growing out of it recommendations will be made.¹

Definition of the Problem

The purpose of this study is to determine the most feasible location for permanent school centers in Fentress County. Such a study should have value in the development of a long-term school building plan for this county. In order to fulfill this purpose, it seems necessary to investigate four sub-problems. They are as follows:

1. To determine population and enrollment trends in Fentress County.
2. To determine the present status and location of school plants in Fentress County.
3. To determine the location of permanent school centers in Fentress County.

1. American Association of School Administrators, American School Buildings, p. 5. Twenty-Seventh Yearbook of the American Association of School Administrators. Washington: The National Education Association, 1949.

4. To suggest a proposed transportation system to care for the enrollment.

Some Historical Features

Fentress County is a rural county located in the northeastern section of Tennessee within the Cumberland Mountains. The greater part of it lies on the Cumberland Plateau.

Fentress County was named for James Fentress, a prominent Tennessee legislator for many years and later an officer in the Confederate Army. Fentress County was created by an act of the legislature in session at Murfreesboro in 1823 from territory that was part of Overton County.²

Jamestown, which is the county seat, is located near the center of the county on the Cumberland Plateau. This site was probably selected because of its geographic center and the several fine springs of good water there. The place was once called Sand Springs and later it became the Obedstown of The Gilded Age by Mark Twain and Charles Dudley Warner.³ Jamestown is the only town in Fentress County and is the trading center for the people of the county.

Fentress County is the home of the well known World War I hero, Sergeant Alvin C. York. He lives in the county in a section known as the Wolf River Valley and operates a large farm there. This county was

2. Albert R. Hogue, History of Fentress County, Tennessee, p. 17. Nashville, Tennessee: Williams Printing Co., 1916.

3. Ibid., p. 78.

once the home of John M. Clemens, the father of the well known writer Samuel Clemens or Mark Twain. John M. Clemens was elected the first Circuit Court Clerk of the county and was postmaster at Jamestown. He was also a practicing attorney in the county and possessed a large estate there. In 1827 he drew the plans for the first jail and courthouse in the county. He moved from Jamestown to Missouri in 1835, where Samuel Clemens was born about a month later.⁴

Fentress County did not develop very fast in the late eighteen hundreds and early twentieth century. This lack of development was probably due to the limited amount of level land in the valleys and the general idea in the early years that the plateau land was too sandy for suitable farm land. In 1828 there were only five families living in Jamestown and the population of the county in 1910 was 350.⁵ As was customary in pioneer communities, the first settlers were almost entirely self-supporting, building their homes themselves, producing most of their food and clothing, and providing opportunities for education and recreation on an informal and personal basis.

The first schools in Fentress County were located in isolated communities and usually were very small buildings which were poorly equipped. The number of students in the schools depended upon the size of the community and the financial status of the people.⁶

4. Ibid., p. 96.

5. Ibid., p. 181.

6. Interview between the writer and Albert R. Hogue at Jamestown, December 17, 1952.

A study of the history of the school building program in Fentress County shows the school plant program developed rather slowly until 1928. There are eight school plants in Fentress County which were constructed before that date and, according to information received from informed persons in those communities, those plants were built by the county and subsidized by the communities. The subsidy usually consisted of one-half of the cost of the school plant with the community providing the site. The initiative for a new school plant was provided by the local community. A study of the deeds recorded in the County Trustee's office shows that eight school sites belong to the county as long as they are used for educational purposes. Should the school be discontinued, the land reverts to the donor or to his estate.⁷

The year of 1928 seems to have been a great year in the history of Fentress County school plants. During that year thirteen new school plants that are still used today were constructed in the county. However, two of these plants were built without cost to the county: York Elementary School and York Institute, both of which were constructed from funds donated to the Alvin C. York Fund to honor the county's famous veteran and hero. The other elementary schools were built by the county and constitute the first substantial school plant expansion in the county.

During 1936 Fentress County constructed six school plants with one and two rooms, and it also made a few additions to some existing buildings. This building program was not, of course, a major one.

7. General Warranty Deed Book, B-2, p. 367. Office of County Trustee, Jamestown, Tennessee.

The next major school plant construction program followed the enactment of the State Sales Tax law in 1947. Since Fentress County had an adequate amount of capital outlay funds from the receipts of the State Sales Tax, it was then possible to start a substantial and continuous construction program. It was the policy of the Board of Education at that time to expand the existing plants sufficiently to provide a classroom for each teacher. During 1947 several additions were made to existing plants, and many major repairs were also made.

In 1948 the Board of Education made a preliminary study of the school plant needs and decided to start a long-term building program for Clarkrange, Grimsley, Allardt, Armathwaite, and Pall Mall Schools. The Board did not have sufficient funds to build new plants at these places, but the members agreed that all five schools needed either additional plant facilities or new plants. As a result of this decision, the County Board of Education requested the County Court to sell bonds to finance this construction. They also agreed to repay the principal and interest on the bonds which were in lieu of the State Sales Tax receipts. The County Court, however, refused this request.

Despite this rebuff by the Court the County Board of Education decided the following year to begin a school plant development program financed by a portion of the capital outlay funds received from the State. Included in this program were the five schools mentioned above.

An architect was employed to prepare plans and specifications for a complete new plant at Grimsley. Also, a science and home economics room plus a central heating plant were planned for Clarkrange. Plans were also made for a central heating plant and a remodeled school

building at Allardt, and a complete plan was made for a remodeled building and central heating plant at Armathwaite. The plans and specifications for these plants were completed and accepted by the Board of Education in 1949. Thereafter, the Board started constructing a central heating plant large enough to heat the total plant at Clarkrange. It also started a science and home economics room that would combine with a new plant at Clarkrange. Furthermore, the Board began a complete new plant at Grimsley, including at this time two classrooms, a principal's office, restrooms, teachers' room, and a central heating plant that would serve the complete new building when finished. At Allardt a new heating plant and two additional classrooms were begun. In addition to this, Armathwaite was to have two classrooms, restrooms, a library, kitchen, corridors, a combination auditorium-lunch room, and a central heating plant to serve the complete building. All of this construction was of concrete block and brick and built with the idea of future expansion to meet expanding needs. In 1950, a new plant was started at Pall Mall, consisting of four classrooms, restrooms, kitchen, and central heating plant.

From this brief survey of the background of the school building program of Fentress County it appears that the program has been slow and partial. Where expansion has occurred, it has usually been sparked by local school initiative. Consequently there has been little or no county-wide planning in the location of small elementary schools. The strong feeling of community identification with the local school, although desirable when the school plant is ideally located, will tend to be a deterrant to any long-range, county-wide program that involves the consolidation and relocation of local schools.

Definition of Terms

1. Permanent School Center is the permanent location of one or more schools whether elementary, or secondary, or both.
2. Attendance Area is an administrative unit consisting of the territory from which children legally may attend a given school building or school center.
3. Average Daily Attendance is a measure obtained by dividing the aggregate attendance by the actual number of days school has been in session.⁸
4. Equalization Fund is a fund used by a state to work more equitably the financial burden of school cost for the various administrative units and to make available in each administrative unit a moderated, acceptable, minimum program of education on the basis of a uniform local tax effort.⁹
5. Minimum Program is a level of education usually expressed in terms of a unit cost, below which a local school district or county cannot or should not go in the maintenance of schools.¹⁰
6. Statistical Report is a report devoted largely to the statistical presentation of facts. All school systems in the State of Tennessee are required to make a statistical report to the State Department of Education each year.

8. Carter V. Good, Dictionary of Education, p. 36. New York: McGraw-Hill, 1945.

9. Ibid., p. 181.

10. Ibid., p. 312.

7. Consolidated School is an enlarged school formed by uniting small schools, usually two or more one-teacher or two-teacher schools, for the purpose of providing better school facilities and increased educational opportunities for the pupils.

Basic Assumptions

The basic assumptions of this study are as follows:

1. That the instructional program of Fentress County must be planned within the State-wide instructional framework.
2. That Fentress County will spend a large sum of money for school plants in the future.
3. That large school centers are more conducive to an enriched school program.
4. That the score sheet used in this study to evaluate the school plants is a valid instrument.
5. That improved road conditions in Fentress County will prevent small schools in the future from being isolated.

Importance of the Study

Throughout the State of Tennessee a school building program has been under way for the last few years. There is a need for more classrooms all over the State, and Fentress County is no exception. The Tennessee State Department of Education is encouraging the consolidation of small attendance areas, and the state will pay a bonus for the establishment of larger attendance. The 1952-53 State Rules and Regulations states: "The amount of \$500 shall be paid to any county,

city or special school district per teaching position actually maintained in schools at the time they are transferred to a larger attendance center."¹¹

The State Legislature has recognized the importance of new school plants in Tennessee. Part Three of the 1952-53 Rules and Regulations states:

The funds appropriated under section 20, Chapter 9, of Public Acts of 1949, shall be spent for capital outlay purposes, including the purchase and improvement of sites, the construction of buildings, the major repairs of buildings of a capital outlay nature, the purchase of equipment, and in the discretion of the county, city or special school district board of education, for the payment of principal and interest of any bonds or other form of indebtedness of a capital outlay nature issued by the counties for school purposes since July 1, 1947; and, furthermore, in the discretion of the quarterly county court, for the operation of privately-owned pupil transportation.¹²

Fentress County receives from the above fund for capital outlay purposes the amount of \$106,780.86.¹³

The development of transportation and communications has made larger school plants in Fentress County both desirable and feasible, but progress in consolidation has been slow. The original school system of Fentress County was based upon sparsely populated communities with very bad road conditions; therefore, many small one-teacher schools were established to accommodate these conditions. In recent years, the road conditions have improved, and the county now has roads that are traveled by school buses all season. Thus, it is now possible to start planning for larger attendance centers.

11. Rules and Regulations, 1952-1953, p. 40. Tennessee State Board of Education. Nashville, Tennessee: State Department of Education, July, 1952.

12. Ibid., p. 34.

13. Ibid., p. 35.

It seems to have been a common practice in Fentress County to build school plants without reference to future development or attendance trends. This practice has resulted in waste not only in construction but also in the annual operating cost.

From the above, there appears to be a great need for a school building program in Fentress County. Also, it is evident that funds over a long period of time can be had to build the desired buildings. With the above factors in mind, it seems logical to say that such a study as the one proposed may be of great value to the future development of school plants in Fentress County.

Related Studies

There has been a growing concern during recent years relative to the reorganization, consolidation, and adequacy of present school plants. Studies have been made on the national and state levels. Many counties in the state of Tennessee have been making studies of their school plants. The most outstanding studies that have a bearing on this study are as follows:

A Study of Tennessee's Program of Public Education.--¹⁴ At the regular session of the General Assembly in 1945, a law was enacted which provided for a study of Tennessee's program of public education. This act specified that the State Department of Education, together with the teachers, other school personnel, and parents of the children in the public school would make the study.

14. A Study of Tennessee's Program of Public Education. Nashville, Tennessee: State Department of Education, 1949.

The Commissioner of Education was authorized by this act to direct the study. He immediately sought the help of the University of Tennessee and the state colleges in making the survey. Administrators, supervisors, teachers, and parents were called upon to participate in the study. It was completed in 1946. The results of the study were reported, as prescribed, to the Governor and General Assembly in January, 1947. The final report of this survey was published by the State Department of Education in 1948. For each of these aspects of school plant, findings were presented, interpretations made, and conclusions drawn.

The study of school sites resulted in the following summary:

From the information presented on school sites, the following interpretations are made:

1. That almost four of [sic] every ten sites in Tennessee are so located that pupils are subjected to hazards and inconveniences, and that school sites themselves offer little, if any, aesthetic stimulation.
2. That 80 per cent of the school sites have one or more features which render them practically useless for large scale community and pupil use.
3. That in 60 per cent of the cases the school site is not used by the community for recreation.
4. That school sites are not equipped for minimum use.

In the light of these interpretations, the following conclusions are evident:

1. That many school sites are located in accordance with certain guiding principles which will promote their proper use.
2. That most school sites are not of sufficient size and are not so arranged and equipped as to be of maximum use to pupils and community.¹⁵

15. Ibid., p. 58.

The summary for building plan and design follows:

From the information presented on building plan and design, the following interpretations are made:

1. That many buildings in Tennessee are so located on site as to hinder the efficient use of both building and site.
2. That the character of the exterior structure of many school buildings is unattractive, in bad need of repair, and so constructed as to magnify safety hazards.
3. That the character of the interior structure of many of these buildings is non-functional, unsafe, insanitary, and conducive to unhealthful conditions.

In the light of these interpretations, the following conclusions are evident:

1. That school buildings are not constructed according to certain guiding principles which would reflect the health, welfare, and civic pride of a community.
2. That school buildings are not generally located on site nor so constructed as to cause the program of educational services to function properly in the community.¹⁶

The summary for instructional rooms is as follows:

From the information presented on instructional rooms, the

following interpretations are drawn:

1. That the average classroom in Tennessee is badly in need of repair and painting and is not functionally desirable from the standpoint of size, hearing and seeing conditions, or equipment.
2. That the additional facilities for science, home economics, agriculture, commerce, music, and shops, when available, are greatly in need of space and equipment.
3. That 2,195 classrooms are urgently needed at the present time to relieve overcrowded conditions in the county public schools of the State.

16. Ibid., p. 60.

In the light of these interpretations, the following conclusion is evident:

1. That instructional rooms are not as a rule maintained adequately and there appears to be no uniform guide for classroom construction which will provide sufficient space, good hearing and seeing environment, and the essential equipment necessary for the type of educational situation which the community needs.¹⁷

The summary for general service rooms is as follows:

From the information presented on general service rooms, the following interpretations are drawn:

1. That facilities available for auditorium use are not adequate, and that very little care has been given to secure a functional stage.
2. That the lunchroom and kitchen facilities are inadequate and in many instances makeshift, through lack of funds for building commensurate with funds secured from the Federal government for operation.
3. That physical education has functioned for only a few of the more fortunate pupils who need it least.
4. That library facilities are very deficient in the elementary schools and badly in need of expansion in the high schools.
5. That there seems to be no place in the modern school program for a study hall as such.

In the light of these interpretations, the following conclusion is drawn:

1. That very little emphasis is being placed on desirable service facilities in the schools of Tennessee in order to round out the individual and to supplement an enlarged and enriched instructional program.¹⁸

17. Ibid., p. 63.

18. Ibid., p. 64.

The summary for administrative facilities is as follows:

From the information presented on administration facilities, the following interpretations are drawn:

1. That adequate quarters to administer the State and county school program are not available.
2. That the present space which the principal and his staff have available to administer a modern school program is very undesirable.
3. That lack of maintenance facilities has caused a serious repair problem in the county schools of the State.
4. That lack of administration facilities may be one reason why there is no long-time building program being planned in the various counties of the State.

In the light of these interpretations, the following conclusions are evident:

1. That adequate space and equipment are not provided for the State administration of public schools.
2. That adequate space and equipment are not provided for the county superintendents of the State to administer a program of public education.
3. That school principals are not provided suitable quarters for themselves and their staff to function efficiently.
4. That there is no overall maintenance and repair program to protect a \$100,000,000 school plant investment.
5. That county boards of education have not initiated through the superintendent a long-time planning program for school plants which will draw on patrons, teachers, and pupils for help and guidance.¹⁹

School Facilities Survey.--²⁰ A nationwide school facilities

19. Ibid., p. 66-67.

20. U. S. Office of Education. First Progress Report of the School Facilities Survey, p. 77. Federal Security Agency. Washington: Government Printing Office, 1952.

survey is being conducted under the immediate supervision of the several participating state educational agencies in cooperation with the Office of Education. This study is being made at the direction of the Eighty-First Congress (Title I Public Law 815). It is the first comprehensive survey of the nation's public, elementary, and secondary school plant facilities.

To facilitate the gathering of data required in Title I of Public Law 815, the School Facilities Survey was divided into two phases: (1) the states' phase and (2) the long range or master-plan phase. The first phase of the survey has been completed and is presented in published form in "The First Progress Report of the School Facilities Survey."

This report provides an extensive inventory of existing public school facilities in the states that have finished the survey. It is related to the survey that is being made in Fentress County. The second phase has not been completed. It will present a plan for the state to make a long-range school plant program.

Limitation of the Study

This study is limited in scope to the Fentress County Public Schools, grades one through twelve, including York Institute, a state-supported high school. A total of forty-four schools will be included in this investigation. There are twenty-three one-teacher schools, twelve two-teacher schools, three three-teacher schools, one five-teacher school, two eight-teacher schools, and one twenty-seven-teacher school. All of these schools include grades one through eight. There is included

one sixteen-teacher school, grades one through twelve, and one fifteen-teacher school, grades nine through twelve.

This study will be limited to findings and recommendations regarding the location of permanent school centers in Fentress County and the number of classrooms that will be needed to accommodate enrollment. The study will also indicate the approximate transportation facilities required for the recommended school plants. This investigation will not include recommendations regarding cost, design, or quality of construction of the schools.

Procedures

After the overall problem had been stated and sub-problems had been isolated, the methods of gathering and handling the data were considered. The procedures presented here have been selected because they seem to offer the most effective way of gathering and organizing the data.

Since the overall problem of the study has been broken down into four sub-problems, it seems advisable to discuss the sources of data and the procedures used in securing needed information for each sub-problem.

Problem I. To determine the population and enrollment trends in Fentress County.-- In looking for a source of information that would reflect the enrollment trends in Fentress County, it was obvious that a study of the total population of Fentress County would have to be made. In an attempt to find this information the most likely place to look was the U. S. Census. It was then necessary to find information on the enrollment. The most likely place to find this information was The Records

of the State Department of Education and the Fentress County Superintendent's office. The next objective on this problem was ways of organizing the data so as to be most effective. An analysis of library materials and a careful study revealed the following desired information:

1. Population of Fentress County between 1920 and 1950
2. Number of births in Fentress County between 1942 and 1952
3. Population of the minor civil districts
4. Increase or decrease in population between 1920 and 1950
5. Increase or decrease of population in minor civil districts between 1920 and 1950
6. Enrollment of Fentress County Schools between 1942 and 1952 by grades
7. Enrollment of Fentress County Schools according to number of teachers, 1952
8. Enrollment of individual schools since 1942

The above information will be used (1) to indicate change in population, (2) to project future enrollment, (3) to show relation of small schools to county-wide enrollment, (4) to present the role of small schools in the past, and (5) to show the population trends of Fentress County.

Problem II. To determine the present status and location of school plants in Fentress County.-- The way to attack this sub-problem was a problem within itself. Realizing the fact that any appraisal made by an individual would have to be subjective, a search was made of different methods. All available sources were studied in the library and notes were taken and recorded on 8 x 10 cards, then filed away for more

study. Before the study was begun, the writer visited Mr. J. B. Calhoun, Director of School House Planning in the Tennessee Department of Education. Mr. Calhoun was very cooperative and assured his willingness to help. He arranged a meeting with Mr. Kit Parker, a fieldman in the Department of School House Planning. Mr. Parker made suggestions and provided score sheets used by the Tennessee State Department in making surveys.

After due consideration and study the score card technique was adopted. The Holy-Arnold Score Cards were adopted as the instruments to be used in surveying the present status of Fentress County school plants. Fifty score cards were ordered. The writer spent four days in Fentress County scoring the school plants. Each school plant was visited and scored according to the directions. The data were then compiled and used in the report.

Problem III. To determine the location of permanent school centers in Fentress County.-- Completing this phase of the study required an analysis of the findings of the two previous problems. Recommendations under this section will include the permanent school centers recommended, the names of schools to be consolidated, the number of students to be transferred, distance of transportation, and number of teachers required for the new center. Each recommendation will be followed by the reasons for the writer's recommendation.

Problem IV. To suggest tentative transportation to care for the enrollment.-- This will also use the facts and data found in the previous studies.

Organization

The remainder of this study will be organized into chapters as follows:

Chapter II. Population Trends in Fentress County

Chapter III. The School Building Survey

Chapter IV. Conclusions and Recommendations

Bibliography

Appendices

CHAPTER II

SOME BACKGROUND FEATURES

There seems to be an immediate need for new school buildings in Fentress County. Apparently there is a shifting of the population in the county from one district to another. Some school plants are overcrowded, while other school districts do not have a sufficient number of pupils to maintain a one-teacher school. Moreover, it seems that some new school plants are needed to replace the unsafe and outdated structures that have been kept in use for many years.

It is recognized that a new school plant is the business of many different people, and it is especially the business of the people of the community for they use and pay for what they get. In the planning for a new school plant, however, the initiative is largely entrusted to the legal representatives of the people, the superintendent of schools, and the board of education.

In order to understand this study it is considered appropriate to describe some background geographical features in Fentress County which have influenced and will continue to influence the school building program. These factors include (1) the physical features, (2) the social and economic features, and (3) the political features.

These features are discussed, though not in great detail, in the following section for the purpose of showing how these features may affect the school plant development program in the county.

Physical Features

The physical features of the county have been an important factor in determining the school organization and will continue to be a determining factor in the school plant development. It is apparent that a school plant needs to be located in relation to the school population, and in many instances these factors are influenced by the physical features of the community.

In order to present a more vivid description of the physical features, the county has been divided into three regions: (1) Cumberland Plateau region, (2) Escarpment region, and (3) Highland Rim region.

The Cumberland Plateau region is the most important section of the county. It has been estimated that approximately twenty thousand acres or 68.9 per cent of the county lies within the Cumberland Plateau.¹

The surface of the Plateau region ranges from flat to a rolling tableland dissected by small streams and gorges ranging from shallow to several hundred feet deep. Most of the soils of this region are classified as either Hartsells or Muskingum, with small areas of other soils intermingled. These soils are predominantly fine sand loams to slit loams, with parent materials consisting of imbedded sandstone and shale coal measures, and with the more rugged portions of the area capped with sandstone. This sandstone rock in general is overlain with from nine to thirty-six inches of soil.²

1. F. N. Masters and C. E. Allred, The Cumberland Plateau in Tennessee, p. 4. Agricultural Experiment Station, Bulletin No. 192. Knoxville, Tennessee: University of Tennessee, 1944.

2. Ibid., p. 5.

This region of the county is adaptable to farming, and many farms are located in this area. There are many acres of timberland within this area, which is potentially good farm land. Since the greater part of the county lies in the Plateau region, it has the largest population and the largest school enrollment of the county. The population and school enrollment will be discussed in Chapter Two of this study.

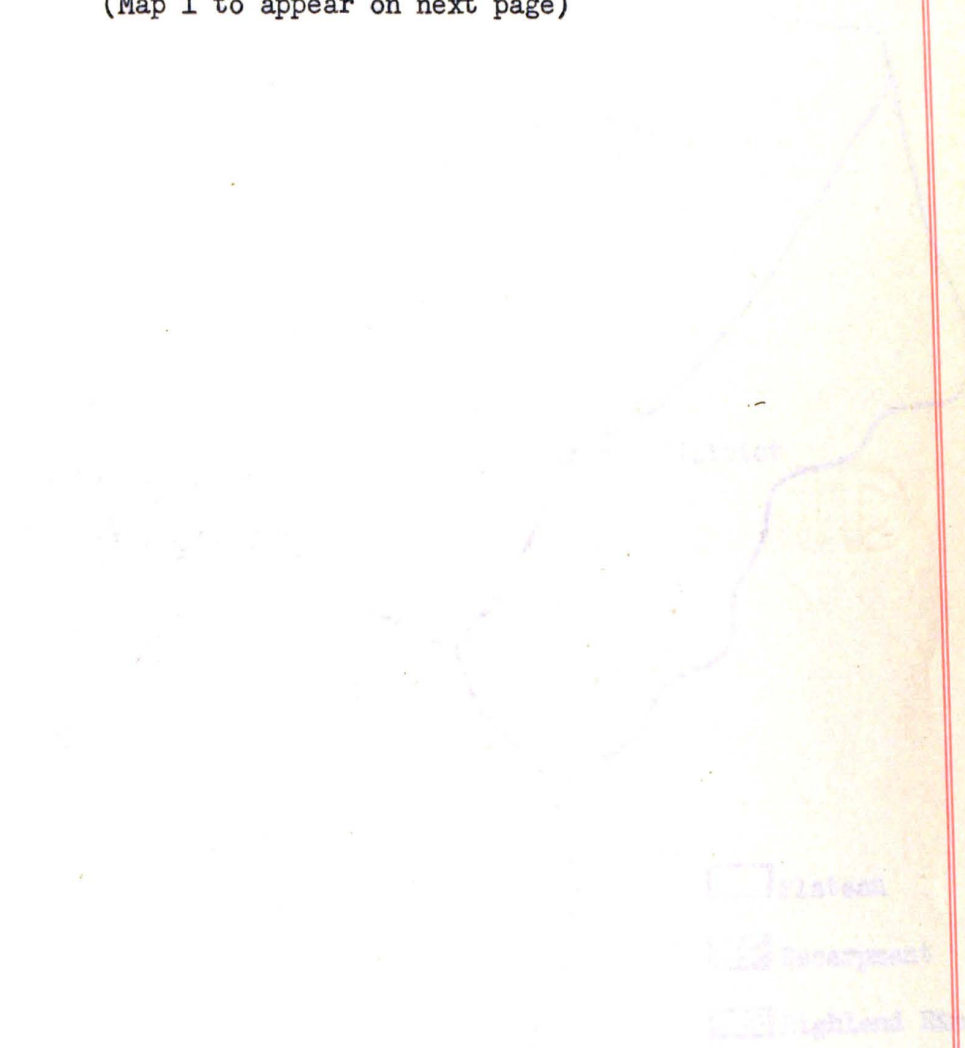
Another region of the county consists of the Escarpment region. This region separates the highlands from the lowlands and is characterized by very steep and rough escarpment; in this region there are many high cliffs rising several hundred feet above the lowlands. Practically all of this area is in timberland and contributes much to the timber industries of the county. Unlike the Plateau region which has a sandstone base, this area has large formations of phosphate. It is located in the northern and western sections of the county. Few people live in this region.

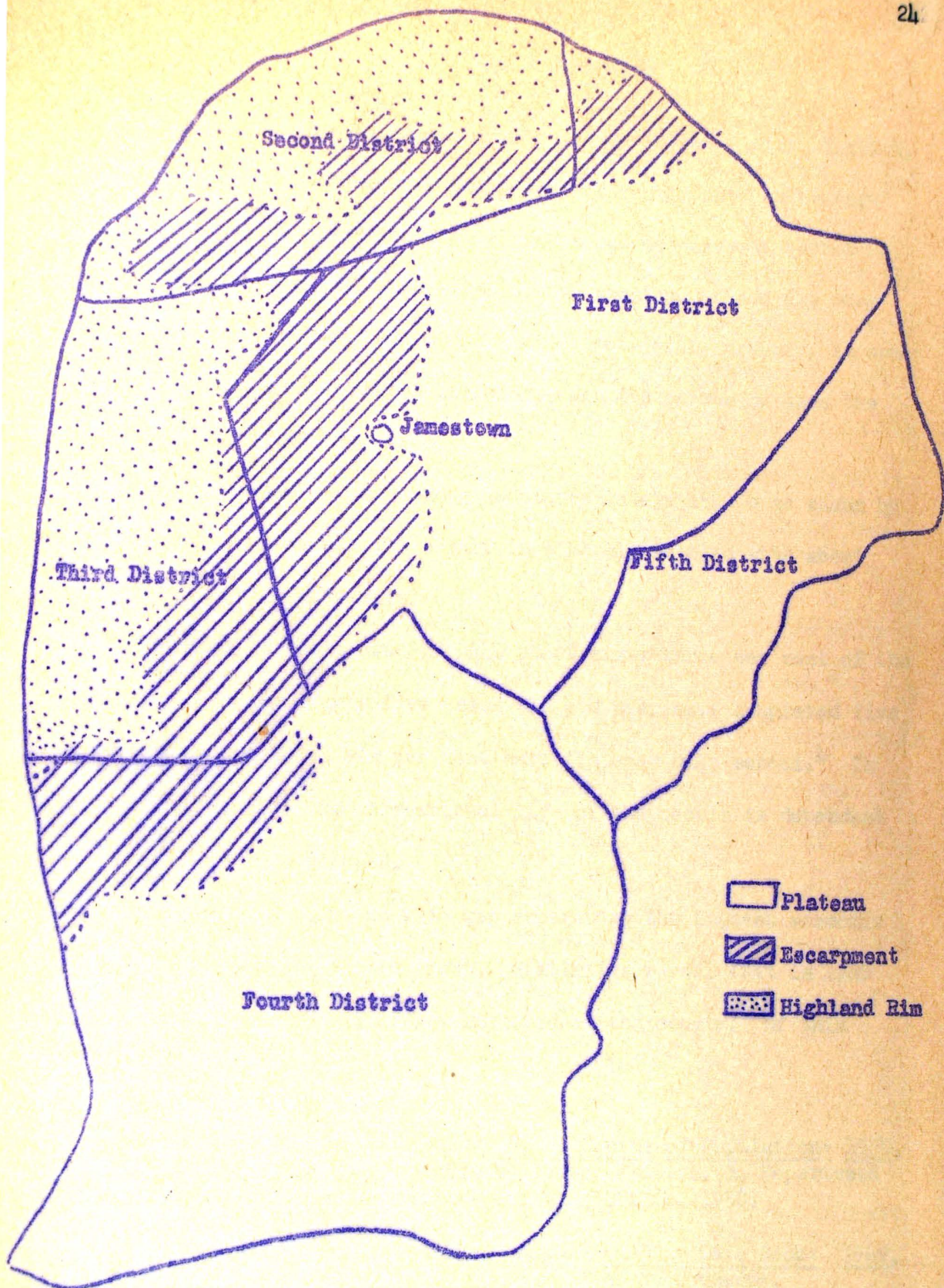
The Highland Rim region of the county consists of the narrow valleys of the East Fork and Wolf Rivers; this section has narrow strips of bottom land that yield good crops. Here and there on the Rim are hills, some of which are remnants of the Plateau; other regions of the area vary from a very uneven to a rolling surface. With the exception of the river bottoms, the farms in this section are small and scattered.

Map 1 shows the three physical regions of the county. It indicates that most of District One lies within the Plateau region; all of District Five lies within the Plateau, and almost all of District Four lies within the Plateau; whereas, District Two and District Three lie within the Escarpment and the Highland Rim regions. The northern and western

sections of the Highland Rim consist of several mountains; however, they are not so high as the mountains in the Escarpment region.

(Map 1 to appear on next page)





Map 1.-- The Physical Regions of Fentress County.

Social and Economic Features

The inhabitants of Fentress County are of Scotch, Irish, English, and German descent; they seem friendly and apparently have an average intelligence. There are no foreign elements and no Negroes; therefore, nationality and racial difference present no problem. There are many churches in the county and all are of Protestant faith; however, in some communities there are no church buildings, and the community uses the school plant for church purposes.

The population of the county is approximately 15,000 as shown by the 1950 census;³ however, the county is sparsely settled with about thirty persons per square mile.

According to the census of 1940 about sixty-three per cent of the people of the county twenty-five years old and over have completed five or more grades and about six per cent have finished high school.⁴ It seems that the social and recreational life of the people is dependent upon the schools and churches.

There appears to be no wide gap separating the highest economic group from the lowest economic group. Statistics reveal that in 1940 there were 3,146 persons gainfully employed in the county. Of this

3. U. S. Bureau of the Census, U. S. Census of Population: 1950, Vol. 1. Number of Inhabitants, table 6, plate 42-13. U. S. Department of Commerce. Washington: Government Printing Office, 1950.

4. U. S. Bureau of the Census, County and City Data Book: 1949, Statistical Supplement, p. 273. U. S. Department of Commerce. Washington: Government Printing Office, 1949.

number, 448 were employed in mining, 527 in manufacturing, 172 in wholesale and retail trade, and 1,503 (approximately forty-eight per cent) in agriculture. The proportion of tenant farmers is not available for 1940, but in 1945 approximately twenty-five per cent of the 1,740 farms in the county were worked by tenant farmers.⁵ In recent years the Plateau region of the county has developed into a good vegetable growing region; most notable are the snap bean and strawberry crops, which use many school children at harvest time. One box factory is located in the county and employs approximately fifty persons, and one cheese plant in the county provides a market for surplus milk which is brought in from the farms.

The wealth of Fentress County is low when compared to the State wealth; in 1948 the wealth was .13 per cent of that of the state.⁶ The assessed valuation of the county is about three million dollars, with a tax rate of three dollars per hundred dollars assessed; one dollar of this tax rate is appropriated for the county schools. The sum of \$34,969.25 was collected in 1952 for county school purposes, and the total expenditures were \$486,777.36.⁷ The state and federal governments provided the difference in the budget beyond the county's tax receipts for schools.

5. Ibid., p. 348.

6. Rules and Regulations, 1952-53, p. 41. Tennessee State Board of Education. Nashville, Tennessee: State Department of Education, July, 1952.

7. Annual Statistical Report of the Department of Education, For the Year Ending June 30, 1952, p. 132. Nashville, Tennessee: State Department of Education, 1953.

Many narrow winding gravel roads are interwoven through Fentress County, with one hard surfaced road running north and south and one running east and west. Most all of these roads are traveled by school buses. The A. & W. Railroad is the only railroad and is used primarily to transport coal and timber products. Most of the people in the county have access to electric power, which is furnished by the Tennessee Valley Authority through the Volunteer Electric Cooperative.

Political Features

Fentress County is organized on a county unit basis and is divided into five Minor Civil Districts. Two Justices of the Peace are elected from each civil district, and an additional two are elected from Jamestown, making a total of twelve Justices of the Peace, who constitute the County Court. The County Court is presided over by a County Judge who is elected by popular vote of all the county and serves for eight years. This County Court constitutes the legislative branch of the county government. All other officials of Fentress County are the regularly constituted officials, including a Superintendent of Schools and a Board of Education. The superintendent is elected for a term of four years by vote of the people of the whole county; the Board of Education consists of five members, one member elected by popular vote from each of the five Minor Civil Districts.

The County Court is the tax assessing agency in Fentress County and approves the school budget after it has been prepared by the County Superintendent and Board of Education.

Population and Enrollment Trends

An essential point of reference in sound educational planning is the broadest possible knowledge of general population trends and enrollment trends in a school system. At what rate is the population growing? What are the locations of population centers? In what location is the population shifting? At what rate is the population likely to grow within the next few years as far as can be judged from data available at the present? These questions should be answered, as far as possible, both generally and specifically as they apply to enrollment in the schools of Fentress County.

It is the purpose of this section of the study to answer the questions above. To better organize the answers, this section has been divided into three parts. They are:

1. Population trends
2. Enrollment trends
3. Predicted future enrollment

In order to show the relationships of these factors to the establishment of permanent school centers, the county has been divided according to the minor civil districts. Data will be presented to show population and enrollment trends.

Population Trends.-- The population of Fentress County has increased in every decade since 1920. Table 1 shows the greatest increase from 1930 to 1940. During this period the increase was over three thousand. This very large increase during 1930 to 1940 may be accounted for by the depression of the early thirties and the construction of the

atomic bomb plant at Oak Ridge during the late thirties. When the depression struck the nation in 1933, many people working in the northern states that had previously lived in Fentress County returned to their families and homes. This migration was caused by the lack of jobs in the northern industries and the higher cost of living in the larger cities. It was also during this period that many people obtained jobs at Oak Ridge, Tennessee, and commuted by auto and bus.

Table 1 also shows the population trends by the Minor Civil Districts. It shows that two particular districts are increasing rapidly. The First and Fourth Districts increased 161.43 per cent and 36.05 per cent, respectively, from 1920-1950. However, the Second District shows a 4.9 per cent decrease while the Third District decreased 37.9 per cent between 1920 and 1950. Although the Fifth District shows a 20.9 per cent increase from 1920 to 1952, it is of interest that the population in this district decreased from 1940 to 1950.

In Table 2 the percentage of the total county population in each of the Minor Civil Districts is shown. It shows that the First District contains 46.2 of the population of all the county while 32.4 per cent of the population is in the Fourth District. Together these two districts consist of over seventy-five per cent of the population; whereas, the Second, Third, and Fifth Districts have about twenty-five per cent of the population.

In the early years many people settled in the Second and Third Districts. This was probably because of the river bottoms, the abundance of springs, and fertile soils there. As was pointed out previously, these two districts lie within the Highland Rim, which consists of river

bottoms and hilly mountainous lands. The early farms in these districts were small, and it was soon learned that the best land in these districts had been developed. This left only the most mountainous for future development. In the earlier days, it seemed generally an accepted opinion that the Plateau land was not suitable for farming; however, in recent years it has proven to be adaptable to farming, and today many good farms exist on the Plateau. The First, Fourth, and Fifth Districts are located on the Plateau, and many hundreds of acres of land suitable for farming and homes are available in these districts.

Per Acre
Increase or
Decrease
1920-1950.

+161.43
- 4.98
- 37.91
+ 36.5
+ 22.94

+ 12.9

TABLE 1

POPULATION OF FENTRESS COUNTY
BY MINOR CIVIL DISTRICTS 1920-1950

District	Year				Increase or Decrease 1920-1950	Per Cent Increase or Decrease 1920-1950
	1920	1930	1940	1950		
One	2,640	3,216	5,049	6,902	4,262	161.43
Two	1,484	1,621	1,823	1,410	- 74	- 4.98
Three	1,688	1,429	1,574	1,048	- 640	- 37.91
Four	3,539	3,797	4,475	4,839	1,300	36.5
Five	1,084	973	1,341	1,311	227	20.94
Jamestown	---	(857)	(1,230)	(2,115)	---	---
Total	10,435	11,036	14,262	14,917	4,482	42.9

TABLE 2

PER CENT OF POPULATION DISTRIBUTED
IN EACH MINOR CIVIL DISTRICT IN 1950

District	Population	Per Cent of County
First	6,902	46.2
Second	1,410	9.4
Third	1,048	7.0
Fourth	4,839	32.4
Fifth	1,311	8.8
Total	14,917	100.0

As shown in Map 1, these districts are in the southeastern section of the county and make up a large proportion of the county. However, the break between the Plateau and under-mountain areas is not settled. Thus, the centers of population seem to be located around Jamestown and to the east toward Allardt and Armathwaite and south toward Grimsley and Clark-range.

The records in the County Trustee's office indicate that many of the small farms in the Second and Third Districts are now owned by business men who live around Jamestown; these farms are operated by tenant farmers. Another practice that may help explain the reason for the shift in population is the large land holder's habit of buying the smaller farms around him and consolidating them; therefore, the people have to find other land to develop for their homes. Thus, they shift to the Plateau where there is more level land and in many cases where they are closer to available jobs that stores, garages, and the box factory may offer them.

In Tennessee the State Law requires that all children between the ages of seven and seventeen years of age attend school. However, children six years old are expected to enter school and children are sometimes over seventeen before they finish high school. The children of Fentress County, therefore, were divided into three age groups according to the districts in which they lived. One group, aged one through five, was considered as "under school age." Another group, aged six through sixteen, was considered as "of school age," and the third group, seventeen through nineteen, was considered "over school age."

Table 3 shows that forty-six per cent of the children of the county were located in the First District and twenty-nine per cent in the Fourth District. Together they have seventy-five per cent of the children in the county. This compares to about seventy-eight per cent of the total population living in these districts as shown in Table 2. The Second, Third, and Fifth Districts have about twenty-five per cent as compared to an equal per cent of the total population. As shown in Table 3, there were only 276 children living in the Second District of school age, which would be a sufficient number of children for a nine-teacher school if it were possible to bring them all together in a central location. In the Third District, there are 221 children between the ages of six and sixteen. This number would support an eight-teacher school according to the State Rules and Regulations, provided they could maintain one hundred per cent attendance.

Table 4 shows the number of households in Fentress County by districts and the average number of children to each household, ages one through nineteen, according to the school census of 1952. This table shows that each district has about the same average number of children per household. Also it shows that the average number of children per household, ages one to nineteen, is 3.11.

TABLE 3

NUMBER OF CHILDREN IN THE MINOR CIVIL DISTRICTS
BY AGE GROUPS IN 1952*

District	Ages			Total	Per Cent of County
	1 - 5 yrs.	6 - 16 yrs.	17 - 19 yrs.		
First	1,085	1,555	313	2,953	46
Second	179	276	45	500	8
Third	124	221	37	382	7
Fourth	658	1,018	217	1,893	29
Fifth	256	395	49	700	10
Total	2,302	3,465	661	6,428	100

* "Summary of School Census Data," Census of Fentress County, Tennessee, Schools. Form TSC-3, May, 1952. (Unpublished report in office of county superintendent, Jamestown, Tennessee.)

TABLE 4

NUMBER OF HOUSEHOLDS IN FENTRESS COUNTY BY DISTRICTS
AND AVERAGE NUMBER OF CHILDREN TO HOUSEHOLD AGE 1-19 YEARS IN 1952*

District	Number of Households	No. Children 1 - 19 Years	Average No. Children to Household
First	958	2,953	3.08
Second	173	500	2.9
Third	95	328	3.45
Fourth	598	1,893	3.16
Fifth	221	700	3.16
Total	2,045	6,374	3.11

* "Summary of School Census Data," Census of Fentress County, Tennessee, Schools. Form TSC-3, May, 1952. (Unpublished report in office of superintendent of schools, Jamestown, Tennessee.)

In order to determine the future of the one-teacher school of Fentress County, it appears that information should be collected to show the number of children living in the vicinity of each one-teacher school. Table 5 shows the number of children in each community that has a one-teacher school. According to the State Rules and Regulations, one-teacher schools shall have an average daily attendance of twenty students per month for at least five out of the nine school months.⁸ From Table 5, it is seen that fifteen one-teacher schools in Fentress County have twenty or less children of school age and seven communities have twenty or more children of school age. This chart also shows the number of children in each community that attend grades nine through twelve. Consequently, it seems that the number of children in the community will be a determining factor in the future of these one-teacher schools.

Enrollment Trends.-- In the previous sections a study was made of the population of the county and districts, together with the ages of the children. In this section a study of the enrollment trends of Fentress County is presented to show the results of the shift in population. Most of the information for this section was obtained from the Annual Statistical Reports of the State of Tennessee and from the records in the Fentress County Superintendent's Office. The enrollment of the county schools is broken down by districts in order to show the relationship of the enrollment to the population of the county. Information is also presented in regard to the size of schools and the per cent of attendance in different sized schools.

8. Rules and Regulations, 1952-1953, p. 13. Tennessee State Board of Education. Nashville, Tennessee: State Department of Education, July, 1952.

TABLE 5

THE ONE-TEACHER SCHOOLS IN FENTRESS COUNTY
AND THE NUMBER OF CHILDREN UNDER SCHOOL AGE, OF
SCHOOL AGE, AND OVER SCHOOL AGE, IN EACH COMMUNITY*

Name of School	Children Under School Age	Children Of School Age	Children Over School Age	Total Children Age 1-19
1. Alticrest	15	40	10	65
2. Bills Creek	5	10	0	15
3. Boatland	3	20	4	27
4. Bowden	13	14	2	29
5. Broad Door	10	20	2	32
6. Cooper	9	20	4	33
7. D. O. Beaty	3	7	1	11
8. East Fork Ch.	8	23	5	36
9. Fairview	18	20	10	48
10. Frogge Ch.	2	14	4	20
11. Greer	7	14	1	22
12. Helena	13	20	10	43
13. Hinds	21	26	2	49
14. Jones	20	17	1	38
15. Kings Mt.	11	19	2	32
16. Little Crab	30	40	10	80
17. Press Beaty	6	13	1	20
18. Rottens Fork	7	30	6	43
19. Round Mt.	30	36	7	73
20. Shirley	17	32	6	55
21. Silver Pine	17	26	2	45
22. Sweet Gum	6	7	1	14
23. Upper Crab	9	18	2	29
Total	280	486	93	859
Average	12.1	21.0	4	39

* "Summary of School Census Data," Census of Fentress County, Tennessee, Schools. Form TSC-3, May, 1952. (Unpublished report in office of superintendent of schools, Jamestown, Tennessee.)

TABLE 6

NET ENROLLMENT FOR FENTRESS COUNTY BY
MINOR CIVIL DISTRICTS FOR SPECIFIED YEARS 1943-1952

Year	One	Two	District Three	Four	Five	Total For County
1943	1,391	453	365	1,013	401	3,623
1944	1,323	403	344	874	387	3,331
1945	1,402	360	311	963	365	3,401
1946	1,490	328	306	1,019	328	3,472
1947	1,639	396	320	1,126	385	3,866
1948	1,827	382	304	1,245	401	4,159
1949	1,795	392	310	1,270	382	4,149
1950	1,832	364	327	1,342	403	4,268
1951	1,894	358	302	1,341	414	4,309
1952	1,887	313	288	1,260	385	4,133

Table 6 shows the net enrollment for Fentress County schools by Minor Civil Districts and for specified years. It shows that the enrollment, except 1943, was rather static until 1947. From 1944 to 1947 the enrollment increased almost four hundred pupils. In 1947, the increase was about three hundred, and then the enrollment leveled off with not much change from 1948 through 1951. It is difficult to find an explanation of the cause of the sharp increase in 1947.

Another significant result reflected by this study is the continuous increase of the enrollment of the First and Fourth Districts. It has been found that there was an increase in these two districts except in the year 1943. The Second District shows a decrease of more than one hundred in enrollment from 1943 through 1952; however, the decrease was not continuous as it varied with different years. The Third District shows a decrease of almost one hundred; the First District does not show much change in the enrollment for the ten years.

The per cent of increase of the enrollment for the ten-year period was the greatest in the First and Fourth Districts with a 35.7 and 23.4 per cent increase, respectively. The Second and Third Districts show a decrease of 30.9 and 21.1 per cent, respectively. The Fifth District shows only 3.9 per cent decrease for the ten years. (Shown in Table 7.)

The relation of the enrollment of each district to the county as a whole is shown in Table 8. The First District had 45.6 per cent of the enrolled school children in the county in 1952 while the Fourth District had 30.4 of the enrollment. Together they had seventy-six per cent of the county enrollment in 1952. Also Table 2 shows in 1950 these same districts had 78.6 of the total population of the county; and Table 3

TABLE 7

PER CENT OF INCREASE OR DECREASE OF ENROLLMENT
OF PUBLIC SCHOOLS OF FENTRESS COUNTY BETWEEN
1943-1952 BY MINOR CIVIL DISTRICTS

Districts	Enrolled 1943	Enrolled 1952	Increase Or Decrease	Per Cent Increase or Decrease
First	1,391	1,887	+496	+35.7
Second	453	313	-140	-30.9
Third	365	288	- 77	-21.1
Fourth	1,013	1,260	+237	+23.4
Fifth	401	385	- 16	- 3.9
Total	3,623	4,133	+510	+14.1

TABLE 8

PER CENT AND AVERAGE NUMBER OF CHILDREN ENROLLED
IN FENTRESS COUNTY SCHOOLS BY MINOR CIVIL DISTRICTS IN 1952

District	Number Schools	Net Enrollment	Average Enrolled Per School	Per Cent Enrolled of All County
First	11	1,887	171.7	45.6
Second	8	313	39.1	7.6
Third	11	288	26.1	6.9
Fourth	10	1,260	126.0	30.4
Fifth	5	385	75.0	9.5
Total	45	4,133	91.9	100.0

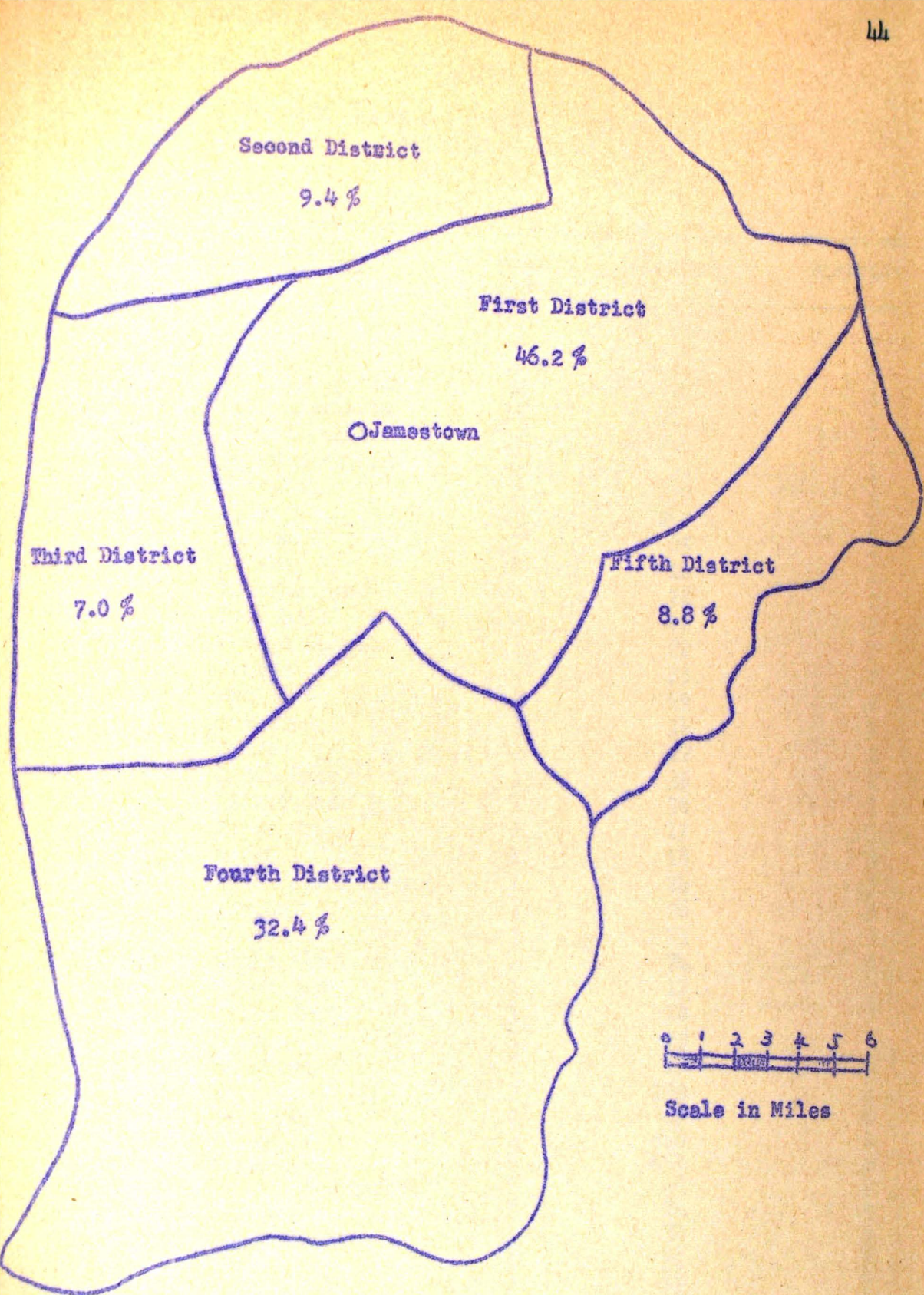
shows that seventy-five per cent of the children aged one to nineteen were in these two districts.

Table 8 also shows that the First and Fourth Districts have twenty-one school plants. This is one less than fifty per cent of all the schools, and these schools enrolled about seventy-five per cent of the children. In order to get a better picture of this distribution, Map 2 shows the location of each school in each district and the percentage of children enrolled in each district.

Table 9 has been arranged to show the name of each school, the number of teachers, and the number of students enrolled in each school on January 1, 1953.

In order to see the significance of the size of schools in the county, a study was made to show the average daily attendance of the schools according to the number of teachers. Since most of the schools in Fentress County are small, they were divided into one-teacher, two-teacher, and three- or more-teacher schools.

Table 10 shows the total average daily attendance of students in the county, and the average daily attendance according to the size of the school for the specified years. This table does not, however, include the average daily attendance for the York Institute since that information is not available. It does include all other schools in the county, grades one through twelve. The data show that from 1930 to 1946 the one and two-teacher schools had approximately fifty per cent of the average daily attendance of the county. However, in 1947, 1948, and 1949 they had more than fifty per cent, but from 1950 to 1952 they seem to be decreasing in average daily attendance. The present trend may be explained by the fact

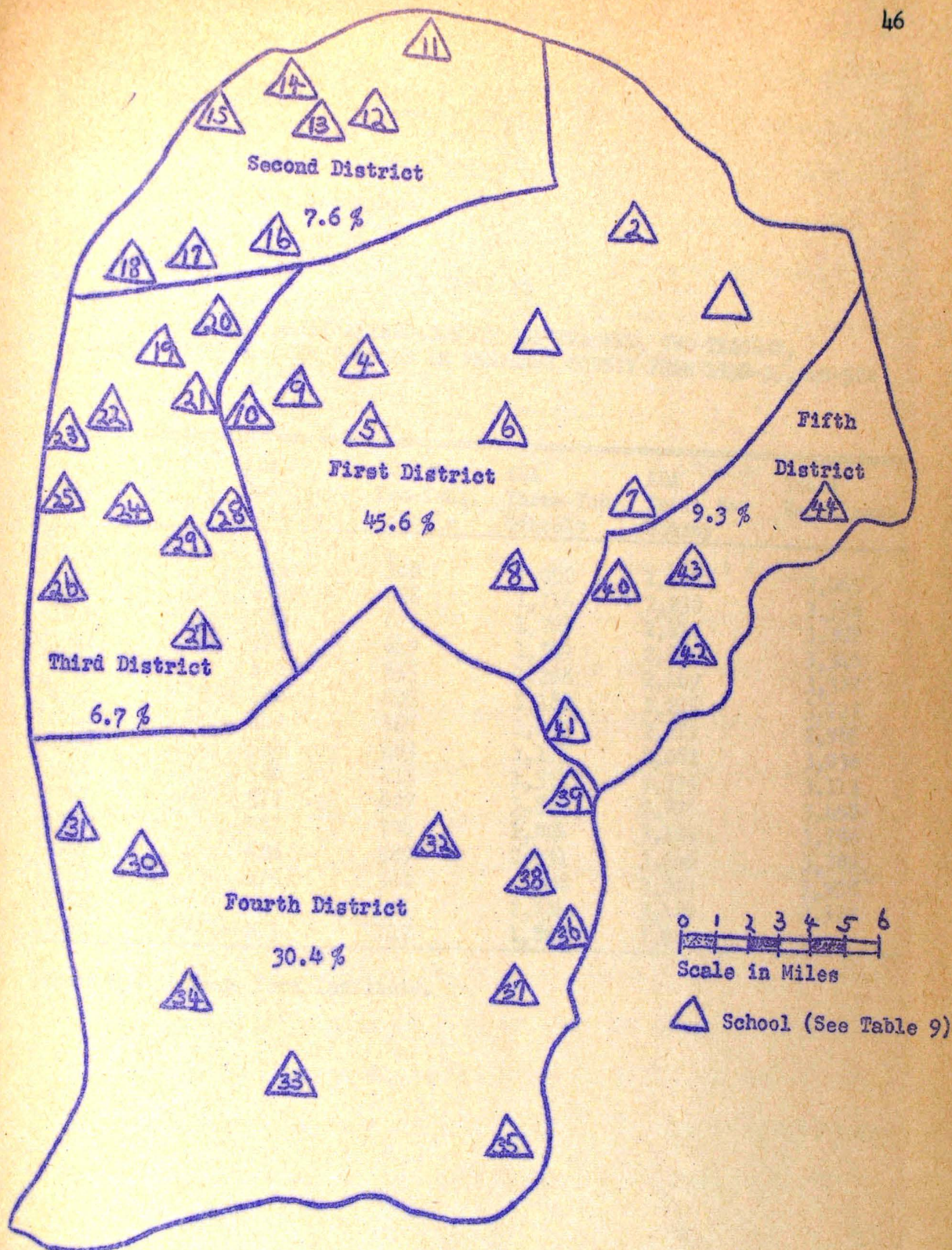


Map 2.-- The Per Cent of Population Distributed
by Minor Civil Districts in 1952.

TABLE 9

NAMES OF SCHOOLS, NUMBER OF TEACHERS AND NUMBER ENROLLED
JANUARY 1, 1953, AS SHOWN ON MAP 3

Code No.	Name of School	Number Teachers	Number Enrolled	District
1	Alticrest	1	38	1
2	Sharp	2	75	1
3	East Jamestown	2	70	1
4	York Institute	15	410	1
5	York Elementary	27	915	1
6	Round Mountain	1	32	1
7	Stockton	2	60	1
8	Allardt	8	259	1
9	Campbell	2	65	1
10	Helena	1	24	1
11	Rottens Fork	1	28	2
12	Pall Mall	2	62	2
13	Frogge Chapel	1	22	2
14	Forbus	2	73	2
15	Red Hill	2	49	2
16	Fairview	1	34	2
17	Hinds	1	22	2
18	Broad Door	1	35	2
19	Little Crab	1	36	3
20	Upper Crab	1	17	3
21	Greer	1	18	3
22	East Fork Chapel	1	24	3
23	Cooper	1	26	3
24	Manson	2	51	3
25	Kings Mountain	1	24	3
26	Sweet Gum	1	12	3
27	Bills Creek	1	18	3
28	Bowden	1	23	3
29	Boatland	1	19	3
30	Wilder	3	120	4
31	Davidson	2	69	4
32	Grimsley	8	248	4
33	Clarkrange	16	457	4
34	Martha Washington	2	48	4
35	Jones	1	24	4
36	D. O. Beaty	1	30	4
37	Roslin	2	67	4
38	Long Branch	3	112	4
39	Press Beaty	1	12	4
40	Tinch	2	52	5
41	Silver Pine	1	25	5
42	Shirley	1	29	5
43	Armathwaite	5	183	5
44	Goad	3	92	5



Map 3.-- The Per Cent of Enrollment and Location of Schools in the Minor Civil Districts of Fentress County, January 1, 1953.

TABLE 10

AVERAGE DAILY ATTENDANCE OF ONE-TEACHER, TWO-TEACHER,
AND THREE-TEACHER SCHOOLS IN FENTRESS COUNTY FROM 1930-35, 40-52*

Year	ADA One-Tchr. Schools	ADA Two-Tchr. Schools	ADA Three-Tchr. Schools	ADA Total for County	Total Enrollment
1930	545	368	1,052	1,965	3,065
1935	494	628	1,116	2,238	3,356
1940	580	629	1,208	2,417	3,307
1941	570	649	1,249	2,464	3,346
1942	526	655	1,268	2,449	3,322
1943	438	605	1,182	2,225	3,222
1944	449	565	1,065	2,079	2,985
1945	544	463	1,175	2,082	3,036
1946	586	415	1,335	2,336	3,113
1947	577	622	1,576	2,775	3,450
1948	587	704	1,824	3,115	3,796
1949	526	589	2,031	3,145	3,785
1950	475	502	2,326	3,303	3,938
1951	474	481	2,234	3,189	3,922
1952	453	717	1,891	3,061	

*Does not include York Institute.

that since 1949 the State Department of Education has raised the minimum average daily attendance figure required of one-teacher schools. This was done to facilitate participation in the minimum program. Before 1950 the average daily attendance required of one-teacher schools was ten pupils for an isolated school and fifteen for all other one-teacher schools. In 1950 that figure was raised to fifteen and twenty, respectively. Thus, since 1950 many one-teacher schools have had difficulty in maintaining the required average daily attendance.

It seems important to show the average daily attendance of the children in the county. In order to do that a study was made for the specified years shown in Table 11. This table shows that in 1930 sixty-four per cent of the children enrolled in school attended school every day, but in 1952 81.9 per cent of the students enrolled were in school every day. Therefore, the holding power of the school seems to be improving. The compulsory attendance laws may account for the large increase in the percentage of attendance between 1945 and 1950. This does not include York Institute, since the average daily attendance for that school was not available.

Data presented in Table 12 show that school attendance is better in two- or more-teacher than it is in the one-teacher schools. In 1952 the one-teacher schools in the county had seventy-two per cent of the enrolled students in average daily attendance. The two-and-over-teacher schools had eighty-four per cent of the enrolled students in average daily attendance.

TABLE 11

AVERAGE DAILY ATTENDANCE IN PUBLIC SCHOOLS OF FENTRESS COUNTY
AS A PER CENT OF ENROLLMENT FOR SPECIFIED YEARS*

Year	Enrolled	Average Daily Attendance	Per Cent of Attendance
1930	3065	1965	64.0
1935	3356	2238	66.7
1940	3307	2417	73.0
1945	3036	2082	68.5
1950	3938	3303	83.8
1951	3922	3189	81.3
1952	3736	3061	81.9

*Does not include York Institute.

TABLE 12

PER CENT OF AVERAGE DAILY ATTENDANCE
OF THE ENROLLMENT OF FENTRESS COUNTY SCHOOLS
BY ONE, TWO, AND THREE OR MORE TEACHERS

	Enrolled 1952	Average Daily Attendance 1952	Per Cent Attendance 1952
One Teacher	547	399	.72
Two Teacher	781	653	.84
Three Teacher	2,408	2,009	.84
Total for County	3,736	3,061	.82

In the preceding section data have been presented to show the enrollment in Fentress County schools during the past years. It has been indicated that the peak enrollment was reached in 1950. The largest increased enrollment was between 1945 and 1950. However, if a long-term school plant program is to be prepared, a study needs to be made of the anticipated future enrollment. The next section will present the projected enrollment to 1965.

Projection of School Enrollment.-- An inquiry was made to determine the technique of estimating the future enrollment of the county. After studying different methods the survivorship technique was selected. This is the method used by the Bureau of Educational Research of Ohio State University in making all of its school-building surveys.¹⁰ This procedure is as follows: Determine the actual number of resident births in the county between the years 1935 and 1951. Since these children will become six years of age in the years 1941 to 1947, they should be enrolled in school during those years for which actual enrollments are now known. For each of these years calculate the percentage of survivorship between the number of births and the enrollment in the first grade of the county schools for the known years which in this case would be 1941 to 1947. Take the average of the percentages for the known years and apply it to the actual number of births which occurred during 1947 to 1951 to get the estimated enrollment in the first grade for the years 1952 to 1957. It is during this time those children born between 1947 to 1951 should enter school.

10. American Association of School Administrators, American School Buildings, pp. 56-57. Twenty-Seventh Yearbook of the American Association of School Administrators. Washington: The National Education Association, 1949.

TABLE 13

PROJECTION OF SCHOOL ENROLLMENT TRENDS

Pentress County School Enrollment Estimates Through 1964-65
Based Upon Actual Enrollment Survival Trends From 1940-41
Through 1950-51*

		Enrollment and Per Cent of Survival in Each Succeeding Grade**																								Total Enrollment			
Year	Number	School Year	Grade One		Grade Two		Grade Three		Grade Four		Grade Five		Grade Six		Grade Seven		Grade Eight		Grade Nine		Grade Ten		Grade Eleven		Grade Twelve				
			Num-ber	Per-Cent Sur-vival	Num-ber	Per-Cent Sur-vival	Num-ber	Per-Cent Sur-vival	Num-ber	Per-Cent Sur-vival	Num-ber	Per-Cent Sur-vival	Num-ber	Per-Cent Sur-vival	Num-ber	Per-Cent Sur-vival	Num-ber	Per-Cent Sur-vival	Num-ber	Per-Cent Sur-vival	Num-ber	Per-Cent Sur-vival	Num-ber	Per-Cent Sur-vival	Num-ber		Per-Cent Sur-vival		
1941	281	1941	996		459		436		357		335		322		237		204		169		118		75		55		3,763		
1942	296	1942	1010	34.1	405	40.6	478	104	385	88.3	314	87.9	277	82.6	245	76.0	208	87.7	149	73.0	103	60.9	81	78.6	68	90.0	3,720		
1943	287	1943	956	23.3	405	40.0	418	103	405	96.8	325	84.4	272	86.6	228	82.3	213	93.4	173	83.1	97	65.1	72	69.9	59	72.0	3,623		
1944	369	1944	855	23.2	391	40.8	375	92.5	348	83.2	346	85.4	255	78.4	222	81.6	193	84.6	146	68.5	83	47.9	62	63.9	55	76.3	3,331		
1945	343	1945	912	26.8	387	45.2	407	104	339	90.4	277	79.5	309	89.3	211	82.7	194	87.3	172	89.1	87	59.5	61	73.4	45	72.5	3,401		
1946	351	1946	964	27.5	357	39.1	413	107	378	92.8	293	86.4	251	90.6	261	84.4	196	92.8	143	73.9	100	58.1	61	70.1	55	90.1	3,472		
1947	391	1947	1079	27.6	413	43.6	403	113	416	100.7	344	91.0	301	102.7	236	94.0	258	98.8	176	89.7	92	64.3	76	76.0	62	101.6	3,866		
1948	344	1948	1050	30.5	523	48.4	466	119	407	100.9	414	99.5	302	87.7	296	98.3	242	81.3	210	81.3	121	68.7	67	72.8	61	80.2	4,159		
1949	369	1949	937	25.4	509	54.2	527	100	453	97.2	365	89.6	366	88.4	269	89.0	244	82.4	167	69.0	143	68.1	102	84.2	65	97.0	4,149		
1950	348	1950	899	25.8	511	54.4	528	103	500	94.8	437	96.4	314	86.0	354	96.7	264	98.1	195	79.9	129	77.2	86	60.1	51	50.0	4,268		
1951	357	1951	865	24.2	468	52.0	519	101	494	93.5	457	91.4	380	86.9	282	89.8	322	90.9	191	72.3	130	66.6	104	80.6	97	112.7	4,309		
1952	377	1952	763	20.3	457	52.8	488	104	479	82.7	449	90.8	405	88.6	337	88.6	249	88.2	221	88.7	146	76.4	99	76.2	86	82.6	4,133		
1953	427	1953	1157	27.1	353	46.2	480	105	452	92.8	428	89.3	395	88.0	355	87.6	301	89.6	196	78.9	143	64.8	107	73.3	83	84.7	4,450		
1954	380	1954	1030	27.1	535	46.2	371	105	445	92.8	404	89.3	377	88.0	346	87.6	318	89.6	237	78.9	127	64.8	105	73.3	90	84.1	4,285		
1955	350	1955	949	27.1	476	46.2	562	105	344	92.8	397	89.3	356	88.0	330	87.6	310	89.6	251	78.9	153	64.8	93	73.3	88	84.1	4,305		
1956	346	1956	938	27.1	438	46.2	499	105	522	92.8	307	89.3	349	88.0	312	87.6	296	89.6	245	78.9	163	64.8	112	73.3	78	84.1	4,259		
1957	335	1957	908	27.1	433	46.2	460	105	463	92.8	466	89.3	270	88.0	306	87.6	280	89.6	234	78.9	159	64.8	119	73.3	94	84.1	4,192		
1958	330	1958	894	27.1	419	46.2	455	105	427	92.8	413	89.3	410	88.0	237	87.6	274	89.6	221	78.9	152	64.8	116	73.3	100	84.1	4,118		
1959	323	1959	875	27.1	413	46.2	440	105	422	92.8	381	39.3	363	88.0	359	87.6	212	89.6	219	78.9	143	64.8	111	73.3	98	84.1	4,038		
1960	320	1960	867	27.1	404	46.2	434	105	408	92.8	377	89.3	335	88.0	318	87.6	321	89.6	167	78.9	141	64.8	104	73.3	93	84.1	3,969		
1961	325	1961	881	27.1	401	46.2	424	105	403	92.8	364	89.3	312	88.0	293	87.6	285	89.6	253	78.9	108	64.8	103	73.3	87	84.1	3,886		
1962	330	1962	894	27.1	407	46.2	421	105	393	92.8	360	89.3	320	88.0	273	87.6	263	89.6	225	78.9	164	64.8	79	73.3	66	84.1	3,851		
1963	328	1963	889	27.1	413	46.2	427	105	391	92.8	351	89.3	317	88.0	280	87.6	244	89.6	207	78.9	146	64.8	120	73.3	101	84.1	3,844		
1964	325	1964	881	27.1	411	46.2	434	105	396	92.8	349	89.3	309	88.0	278	87.6	251	89.6	193	78.9	134	64.8	107	73.3	101	84.1	3,648		
1965	315	1965	854	27.1	407	46.2	432	105	403	92.8	354	89.3	307	88.0	271	87.6	249	89.6	198	78.9	125	64.8	98	73.3	90	84.1			
Average (born period)			354		935		438	46.2	456	105	418	92.8	365	89.3	312	88.0	267	87.6	235	89.6	177	78.9	112	64.8	79	73.3	64	84.1	
Average (estimated period)			325		924		424		449		421		389		336		304		277		219		143		106		89		

*From year 1951 all birth and enrollment figures are estimated.

**Enrollments are as of the last month of school for each year. Per Cent of survival for 1941-42 are complete, since enrollments for 1940-41 were available.

In a similar manner calculate the percentage of survivorship from first grade to second grade and so on, and apply those known figures to get estimates in the years immediately ahead.

The application of this technique to Fentress County, Tennessee, is shown in Table 13.

As shown in Table 13, the births are estimated from 1952 through 1959. In projecting the average ratio several assumptions become apparent. They are:

1. That prior migration trends will continue unchanged
2. That school attendance will vary directly with the rise or decline of child population
3. That non-resident enrollment will remain constant
4. That the predicted births will be reasonably close to correct

According to the projection, it appears that the record enrollment for Fentress County will be 1952-53 in which there is an expected enrollment of about forty-four hundred pupils. After this date it appears there will be a gradual decrease in enrollment until 1965.

It was found that the largest number of drop-outs in this county in the elementary schools were from the third grade to fourth grade. There was a drop-out ratio of twelve and two tenths per cent. In the high school, the drop-outs from the eighth grade to the ninth grade were about eleven per cent, and from the ninth grade to tenth grade the drop-out rate was about fourteen per cent. It was found that in 1942 there was an enrollment of one thousand and ten pupils in the first grade. In 1953, the year this class should finish the twelfth grade, there were only eighty-three pupils enrolled. This is a survivorship of about eight

per cent. It seems appropriate to call attention to the need of a study to determine the cause of this tremendous drop-out.

Summary

It has been the purpose in this chapter to identify and substantiate by appropriate data the major factors which influence school organization in Fentress County. The factors identified are summarized below under sectional headings.

Physical Features

A study of the physical features pertaining to the school organization indicates the following characteristics of the county:

1. The county contains three distinct regions, which are identified as the Plateau region, the Escarpment region, and the Highland Rim region.
2. The Plateau region is the largest region of Fentress County.
3. The Escarpment region is very rough and very sparsely populated.
4. The Highland Rim region is the oldest and second largest region.

The features present in this section indicate the conditions that exist in Fentress County's physical features.

Social and Economic Features

It should be emphasized that the social and economic conditions are a determining factor in the school organization, since most educators agree that the schools should serve the needs of the people. Thus, the following conditions were found in Fentress County:

1. There are no foreign elements in the county.
2. There are no Negro inhabitants.
3. About sixty-three per cent of the people twenty-five years old and older have completed five or more grades.
4. About one-half of the people are employed in agriculture.
5. The most important industry is the lumber industry.
6. The Cumberland Plateau has become an important farming region.
7. The wealth of Fentress County is low compared to Tennessee's wealth.

Political Features

1. Fentress County is organized on a county unit basis.
2. It seems to be a typical rural county in its form of government.
3. The County Court is the tax assessing agency of the county.
4. Schools are governed by the County Board of Education and Superintendent of Schools.
5. School Board Members and Superintendent of Schools are elected by popular vote.

Population

The population of Fentress County is the most determining factor in the school organization. A thorough study was made of the population and the data presented show that the following conditions exist:

1. The population has increased each decade since 1920.
2. The population according to the 1950 census was about 15,000.

3. The First and Fourth Districts are the fastest growing areas.
4. The First and Fourth Districts are the centers of population.
5. Population in the Second and Third Districts is decreasing.
6. The county has a population of about 6,500 children between the ages of one to nineteen.
7. The average number of children, aged one to nineteen, per household is 3.11.

The population trend is a definite shifting from "under mountain" to the plateau. The population increase seems to be leveling off. During the last decade the increase was slightly less than eight hundred.

Enrollment

The school enrollment of Fentress County shows about the same general trends as does the population. A study of the enrollment indicates the following conclusions:

1. The peak enrollment for the last ten years was in 1951.
2. The enrollment in 1952 was 4,133.
3. The enrollment has increased rapidly in the First and Fourth Districts for the last ten years.
4. The enrollment in the Second, Third, and Fifth Districts has decreased for the last ten years.
5. The First District enrolls almost one-half of the enrollment.
6. The average daily attendance of the one-teacher schools has been decreasing since 1946.
7. The per cent of average daily attendance to the number of students enrolled has increased about twelve per cent since 1930.

8. Children have better attendance records in the two- or more-teacher schools.

Projection of School Enrollment

A projection was made for the future enrollment to 1965. The data presented in the projection show the following conclusions:

1. The largest drop-outs were from grades three to four.
2. The largest enrollment was reported in 1953.
3. The per cent of survival from the first year in school to the twelfth grade is about eight per cent.

The general influencing factors presented in this chapter are significant in several ways. First, these features reflect the thinking of the people living in Fentress County. This is important because the schools express the desires of the people. Second, the information presented should be of value to the educational leaders of the county in preparing a long-term school plant program.

The population and enrollment data presented in this chapter indicate the shift of population in the direction of the Cumberland Plateau and should be useful in determining the location of future school plants.

CHAPTER III

THE SCHOOL BUILDING SURVEY

In order to make sound plans for a future school building program for Fentress County it was necessary to take an inventory and make an appraisal of the existing school plants. It is the purpose of this chapter to present the findings of such a survey and to answer such questions as:

1. What is the status of school housing in Fentress County?
2. Where are the present school plants located?
3. What capacity do they have?
4. What is the condition of the school plants?
5. What possibilities are there for remodeling these plants?
6. Are the buildings unsafe for children?
7. Are there fire hazards in the buildings?
8. How adequate are the school sites?
9. How old are the existing buildings?
10. What buildings, if any, should be abandoned?

These and other questions are considered in describing and appraising the existing school plants.

Method of Scoring

In making the survey it was necessary to select an instrument by which each plant could be scored on an equal basis. The score cards selected were by F. C. Holy and W. S. Arnold, "Score Card for the Evaluation of Junior and Senior High School Buildings". The appraisal was

based on standard criteria of safety, size, construction, and general suitability as furnished by the Tennessee State Department of Education.

It is assumed that the score cards and criteria used in this survey are valid and that they incorporate the desirable features of an adequate and suitable school plant. This assumption is made since the State Department of Education requires these criteria to be followed in the construction of new school buildings. Copies of the score cards and the criteria used in this survey are presented in the appendices of this study.

The score card is divided into five categories for the elementary schools. They are as follows:

1. Sites
2. Buildings
3. Academic classrooms
4. Special service rooms
5. Service system.

In scoring the buildings, a check mark was placed after each item under the appropriate heading A, B, C, D, or E. If the item met in full the standard and was considered to be "excellent," the check was placed in column A. If, however, the item as found in the building was only fair, then a check was placed in column C. The other columns were checked in like manner.

After the checking had been completed, the score for each item was found in the appropriate column. The score was placed in the right box marked "score". The scores for each division and subdivision were totaled and placed in the space provided at the right of the page and opposite the name of that division or subdivision. The maximum score was one thousand.

Items not found in the building and not needed in the building were given the same percentage of the maximum score of these items as the score allotted to all other items is of their maximum scores. For example, suppose ten items are not found in a building and are not needed in that building and the total maximum score of these ten items is seventy-five. The seventy-five subtracted from one thousand gives 925, which is the maximum score of all other items scored. These, however, were allotted a total of only 750 points of the 925, which is eighty-one per cent. Eighty-one per cent of seventy-five is sixty-one, which is the number of points to be allowed for the ten items not found and not needed. This added to the 750 points for all other items gives a total score of 811 for the building.

In prosecuting this study, the assumption is made that a one-teacher school plant does not require the following facilities:

1. Division II D. Internal structure	Points	55
2. Division IV A. Auditorium	Points	34
3. Division IV B. Assembly room	Points	24
4. Division IV E. Kindergarten	Points	33
5. Division IV F. Administrative Office	Points	34
6. Division IV G. Teachers Room	Points	15
7. Division IV I. Janitor's Room	Points	8
8. Division IV J. Industrial Arts	Points	22
9. Division IV K. Home Economics	Points	<u>22</u>
	Total	247

After subtracting the 247 points assumed not needed in a one-teacher school, the maximum score for these schools in 753 points. The above

assumption is based on the belief that it would be economically unsound to provide one-teacher schools with these facilities. In case of the internal structures, which include stairways, corridors, lobbies, and basement, it is the belief of the writer that these facilities are not needed because of the structure and nature of the buildings. Furthermore, it is assumed that no two-teacher elementary school plant in Fentress County requires the following facilities:

1. Division II D. Internal structure	Points	55
2. Division IV E. Kindergarten	Points	33
3. Division IV J. Industrial Arts	Points	22
4. Division IV K. Home Economics	Points	<u>22</u>
Total		132

When 132 points are subtracted from the maximum score of one thousand, the maximum adjusted score for all two-teacher schools would be 868.

It seems reasonable to make the assumption that a two-teacher school should not have to have the internal structures such as corridors, basements, janitors' rooms, stairways, and lobbies since it would be economically unsound because of the nature of the building.

It is also assumed that no elementary school in the county could afford industrial arts and home economics. The county is rural in background, and the wealth is so low it could not bear this type of expense at this time. This is also true of the kindergarten program. Therefore for three- or more-teacher schools it is assumed that the following divisions are not needed:

1. Division IV E. Kindergarten	Points	33
2. Division IV J. Industrial Arts	Points	22

3. Division IV K. Home Economics Points 22

Total points not needed in three-or more-teacher plant 77

The maximum score for three- or more-teacher schools would be 962.

Sources of Information

The survey was made after January 1, 1953, and the information presented in this chapter is valid as of January 1, or at the end of the fifth month of the school year 1952-53.

The writer visited each school plant and collected the information for the survey. The scoring is subjective inasmuch as it is the judgment of the writer; however, the experiences and opinions of the County Superintendent and the Supervisor of School Plants are reflected in the survey. They were very cooperative in the study and were willing to contribute in every way. Such information as the dates of construction and areas of sites were taken from the school records in the County Superintendent's office.

General Characteristics of the School Plants

The purpose of this section is to show the following general characteristics of the school plants in Fentress County:

1. The number of school plants and general location
2. The ages of school buildings in relation to the number of teachers
3. The ages of school buildings in relation to the per cent enrolled in each age group
4. The type of construction in relation to the teacher-sized school.

5. The number of classrooms and per cent enrolled in each type of school plant

6. The size of school sites in relation to the number of teachers

Fentress County has forty-four school plants. Forty-two of these plants serve children in grades one through eight. There is one plant which serves grades one through twelve and one plant which serves grades nine through twelve. This includes the York Institute, which is a state-supported high school. The county does not have any administrative power over the York Institute; however, the county does provide transportation for this school. Consequently, Fentress County maintains only one school on the high school level, but since the York Institute serves the secondary students of the county, it is included in the survey.

Table 14 shows that 52.2 per cent of the schools in the county are one-teacher schools, 27.3 per cent are two-teacher schools, and 20.5 per cent are three-teacher or more. This shows that about eighty per cent of the schools in the county are one and two-teacher schools. It also shows that the second and third districts have no schools larger than two-teacher.

A study of the ages of the school plants shows that the smaller schools are newer in general than the larger schools. A large number of the school plants are between eleven and twenty years old. Of this category thirteen out of fifteen of these plants are one and two-teacher schools. Thirty-four and two tenths per cent of all the school plants are in this age group. Most of the larger schools fall in the twenty-one to thirty year-old age group, and five of the nine three-or more-teacher schools fall within this age group. This shows that 27.2 per cent of all

the schools in the county are from twenty-one to thirty years old. It further indicates that 20.5 per cent of all the school plants are less than eleven years old and eight out of nine of these newer school plants are one and two-teacher schools. (See Table 15.)

In showing the number of children enrolled in these different aged buildings, it was found that almost sixty per cent of the children enrolled in the county were accommodated in buildings from twenty-one to thirty years old. It was also found that 10.6 per cent of the children enrolled were in buildings thirty-one to fifty years old. (See Table 16.)

None of the school plants in the county are fire-resistive. There are two plants constructed entirely of brick and five plants that are of frame and brick construction. Also, thirty-seven of the forty-four plants are of a frame construction. (See Table 17.)

A study was made of the number of students enrolled in relation to the number of classrooms. As shown in Table 18, there are a total of 149 classrooms in the county and eleven of these classrooms are not in use. It was found that the schools with more than six classrooms are the school plants most overcrowded. The excess classrooms were found in the smaller school plants that had at one time maintained more teachers, but had later lost students and the enrollment did not justify the teaching positions. Table 18 also indicates that 60.2 per cent of the county enrollment is in schools of six classrooms or more.

It is apparent that the size of the school site has considerable effect on the adequacy of the school plant. A study was made to determine the size of all the school sites. The plants were divided according to the number of teachers. They range in size from less than one acre to

more than three hundred acres at the York Institute. Table 19 indicates that thirty-eight per cent of the school sites are less than one acre, twenty-three per cent have a site of two acres, seven per cent have three acres, and sixteen per cent have four acres. According to the Tennessee State Department of Education Rules and Regulations, the minimum site for a one-teacher school shall consist of at least four acres. Therefore, it appears that at least thirty of the school plants do not meet the state requirements. Many of the school sites are so located that it would be impossible to expand because of creeks, roads, or hills. The size of the site, however, was considered in the score card, and many schools scored low on this item as will be shown later. Since the State Department of Education sets up a definite sized area for a school site, it seems that this alone would eliminate many of the school plants in the county because they do not meet requirements.

In scoring the school plants according to the Holy-Arnold Score Card, it seemed best to divide the school plants according to the number of teachers in the elementary schools and to list the two high schools separately. Each plant was given a score of A, B, C, or D. If a school plant rated an A it means that the plant is excellent, a B indicates a good rating, a C indicates fair, and a D indicates a poor plant. All scores of C or above were rated as satisfactory; all scores of D are rated as unsatisfactory.

Each school plant was rated on each of the five main divisions of the score card. This was done to give a picture of the adequate and inadequate features of each school plant.

TABLE 14
 NUMBER OF SCHOOL PLANTS IN FENTRESS COUNTY
 AND PER CENT OF PLANTS IN EACH DISTRICT

District	Number			Total
	One Teacher	Two Teachers	Three or More Teachers	
One	3	4	3	10
Two	5	3	0	8
Three	10	1	0	11
Four	3	3	4	10
Five	2	1	2	5
Total	23	12	9	44
Per Cent of Total	52.2	27.3	20.5	100

TABLE 15
 AGES OF SCHOOL BUILDINGS IN FENTRESS COUNTY, JANUARY 1, 1953
 BY NUMBER OF TEACHERS

Type of Plant	Less than 11 years	11-20 years	Ages 21-30 years	31-50 years	50 years or over	Total
One-Teacher	5	10	3	4	1	23
Two-Teacher	3	3	4	1	1	12
Three or More Teacher	1	2	5	1	0	9
Total	9	15	12	6	2	44
Per Cent of Total	20.5	34.2	27.2	14	5	100

TABLE 16

AGES OF SCHOOL PLANTS WITH PER CENT
AND NUMBER ENROLLED IN EACH AGE GROUP AS OF JANUARY 1, 1953

Year	Number	Per Cent of Total	Number Enrolled	Per Cent Enrolled
Less than 11	9	24	428	10.4
11-20	15	35	722	17.3
21-30	12	25	2,447	59.4
31-50	6	12	414	10.6
Over 50	2	4	98	2.9
Total	44	100	4,109	100.0

TABLE 17

NUMBER OF COMBUSTIBLE AND FIRE-RESISTIVE BUILDINGS IN COUNTY
BY NUMBER OF TEACHERS

Number of Teachers	<u>Type of Construction</u>				Total
	Fire Resistive	Semi-Fire Resistive	Mixed	Combustible	
One-Teacher	0	0	0	23	23
Two-Teachers	0	1	0	11	12
Three-or-More Teachers	0	1	5	3	9
Total	0	2	5	37	44
Per Cent	0	4.6	11.3	84.1	100

TABLE 18

NUMBER OF SCHOOL PLANTS AND PER CENT ENROLLED
BY NUMBER OF CLASSROOMS-JANUARY 1, 1953

Type of School Plant	Number of School	Number of Classrooms	Number Enrolled	Per Cent Enrolled
One Room	19	19	458	11.1
Two Room	12	24	584	14.3
Three, Four & Five Rooms	7	24	595	14.4
Six Rooms or Over	6	82	2,472	60.2
Total	44	149	4,109	100.0

TABLE 19

SIZE OF SCHOOL SITES BY NUMBER
OF TEACHERS IN FENTRESS COUNTY

Number of Teachers	<u>Acres</u>					Total Schools
	One or Less	Two	Three	Four	Five or More	
One	13	6	1	3	0	23
Two	4	3	2	3	0	12
Three	0	1	0	1	1	3
Four or More	0	0	0	0	6	6
Total	17	10	3	7	7	44
Per Cent of Total	38	23	7	16	16	100

Characteristics of Each Type School Plant

One-Teacher Plants.-- According to the survey, twenty of the twenty-three one-teacher elementary school plants in the county were scored unsatisfactory. Three plants were rated satisfactory. (See Table 20.) The plants rated as satisfactory are Boatland, Frogge Chapel, and Kings Mountain. The two latter school plants were constructed in 1949 and are relatively new and were built according to the state requirements at that time. Boatland School is a two-room school plant and has been a two-teacher school and dropped to a one-teacher school because of lack of sufficient average daily attendance.

Table 21 indicates that none of the one-teacher school plants rate satisfactory scores for general service rooms and service system. Although many of the general service rooms were considered necessary, they could not be rated satisfactory. Six of the one-teacher school plants rated satisfactory and seven of the one-teacher schools have an adequate academic classroom.

Eight of these one-teacher schools have been declared isolated by the State Department of Education.¹ They are: (1) Greer; (2) Bowden; (3) Bills Creek; (4) Upper Creek; (5) Sweet Gum; (6) Kings Mountain; (7) Press Beaty; and (8) Silver Pine. However, Greer, Bowden, Upper Creek, and Silver Pine have school buses passing the school plant.

1. Interview between the writer and C. V. Peavyhouse, Superintendent of Schools, Fentress County, Tennessee, at Jamestown, December 17, 1952.

TABLE 20

RATINGS OF THE ONE TEACHER ELEMENTARY SCHOOLS
ACCORDING TO THE HOLY-ARNOLD SCORE CARD

Name of School	Site	Building	Academic Class- room	General Service Rooms	Service System	Total Adjusted Score
1. Alticrest	D	D	D	D	D	D
2. Press Beaty	D	D	D	D	D	D
3. D. O. Beaty	D	D	D	D	D	D
4. Bills Creek	D	D	D	D	D	D
5. Boatland	D	D	C	D	D	D
6. Bowden	D	D	D	D	D	D
7. Broad Door	D	D	C	D	D	D
8. Cooper	D	D	D	D	D	D
9. East Fork	D	D	D	D	D	D
10. Fairview	D	D	C	D	D	D
11. Frogge Chapel	C	C	C	D	D	C
12. Greer	D	D	D	D	D	D
13. Helena	C	D	D	D	D	D
14. Hinds	D	D	D	D	D	D
15. Jones	D	D	D	D	D	D
16. Kings Mt.	C	C	C	D	D	C
17. Little Crab	D	D	D	D	D	D
18. Rottens Fork	C	D	C	D	D	D
19. Round Mt.	D	D	D	D	D	D
20. Shirley	C	D	C	D	D	D
21. Silver Pine	D	D	D	D	D	D
22. Sweet Gum	D	D	D	D	D	D
23. Upper Crab	D	D	D	D	D	D
Number Satisfactory	6	2	7	0	0	3
Number Unsatisfactory	17	21	16	20	23	20

TABLE 21

SUMMARY OF THE SCORES OF THE ONE-TEACHER
ELEMENTARY SCHOOLS IN FENTRESS COUNTY

Scores	Site	Building	Academic Classroom	General Service Rooms	Service System	Total Adjusted Score
A	0	0	0	0	0	0
B	0	0	0	0	0	0
C	6	2	7	0	0	3
D	17	21	16	23	23	20
Total	23	23	23	23	23	23

Two-Teacher Plants.-- There are twelve two-teacher schools in the county, as shown in Table 22. The only plant of this category rating satisfactory is Pall Mall. Built in 1952 of brick construction, this plant, with four classrooms and a kitchen, is not completed at present. When finished it will provide facilities for a four-teacher consolidated school. The survey showed this school to be satisfactory in all divisions except general service rooms. It is the only two-teacher school in the county that rated satisfactory.

Table 23 indicates that seven of the twelve two-teacher schools have satisfactory sites. Eight buildings have satisfactory academic classrooms, but no two-teacher plant has satisfactory general service rooms. Only four plants of this category have satisfactory service systems.

Three-or-More-Teacher Elementary School Plants.-- There are seven elementary school plants in the county that have three or more teachers. Goad, Long Branch, and Wilder are three-teacher schools. Armathwaite is a five-teacher school, Allardt and Grimsley are eight-teacher schools and York Elementary School has twenty-seven teachers.

It has been the policy of the Fentress County Board of Education since 1948 to make satisfactory school plants of York Elementary, Allardt, Grimsley, and Armathwaite.² These schools are the largest elementary schools in the county and are large enough to provide the necessary facilities for a modern school plant.

2. "Minutes of Fentress County, Tennessee, Board of Education, June 10, 1948," p. 98.

TABLE 22

RATINGS OF THE TWO-TEACHER ELEMENTARY SCHOOLS
ACCORDING TO THE HOLY-ARNOLD SCORE CARD

Name of School	Site	Building	Academic Classroom	General Service Service Rooms	System	Total Adjusted Score
1. Campbell	C	D	C	D	D	D
2. Davidson	D	D	D	D	D	D
3. East Jamestown	D	D	C	D	D	D
4. Forbus	C	D	C	D	C	D
5. Martha Washington	D	D	D	D	D	D
6. Manson	D	D	C	D	D	D
7. Pall Mall	C	B	C	D	B	C
8. Roslin	C	D	C	D	D	D
9. Red Hill	C	D	D	D	C	D
10. Sharp	C	D	C	D	C	D
11. Stockton	C	D	C	D	D	D
12. Tinch	D	D	D	D	D	D
Total Number Satisfactory	7	1	8	0	4	1
Total Number Unsatisfactory	5	11	4	12	8	11

TABLE 23

SUMMARY OF THE SCORES OF THE TWO-TEACHER
ELEMENTARY SCHOOLS IN FENTRESS COUNTY

Scores	Site	Building	Academic Classroom	General Service Rooms	Service System	Total Adjusted Score
A	0	0	0	0	0	0
B	0	1	0	0	1	0
C	7	0	8	0	3	1
D	5	11	4	12	8	11
Total	12	12	12	12	12	12

Armathwaite is a mixed frame and brick structure which has six classrooms, a library, kitchen, combination auditorium-lunch room, central heating plant, indoor toilets, and drinking fountains. A great part of the building is of brick structure and has been added to the original building since 1950. Plans are in the superintendent's office which call for remodeling the original building, and when the building is finished, it will probably be an adequate plant. According to the score card, it rated satisfactory in all divisions.

Allardt is a mixed structure building with two rooms of brick and six rooms of frame structure. It consists of eight academic classrooms, a central heating plant, lunch room and kitchen, but it does not have an auditorium or indoor toilets. The number of classrooms is sufficient at present to take care of current enrollment. Allardt rated satisfactory in all divisions except general service rooms.

The Grimsley school plant consisted of two plants at the time of the survey. In one plant there are six classrooms, and in the basement there are a lunch room and kitchen. This building is of frame structure. In addition to this building, a new plant has been started which consists of two classrooms, a principal's office, a teacher's room, indoor toilets, and a central heating plant. In rating this plant, both buildings were considered in the scoring. This plant scored satisfactory in all divisions except general service rooms. The overall plant rated satisfactory.

The York Elementary School is the largest school in the county and is located at Jamestown, the county seat of Fentress County. York Elementary School has twenty-seven teachers. The plant consists of four

different buildings and the main building is of brick structure with seventeen classrooms. In addition, it has a principal's office, four toilet rooms, two library rooms, an auditorium, a lunch room and kitchen with a central heating plant and a sufficient number of drinking fountains. One teacher has a classroom in a "little white house" close by that is of frame structure. Six teachers have classrooms in old army barracks, and one classroom is provided in a shop room across the playground. In scoring this plant all the buildings were considered. This plant scored satisfactory in all divisions of the score card except the general service rooms.

Wilder is a three-teacher plant and consists of five classrooms, a kitchen, and lunchroom. This school at one time was a junior high school plant with six teachers in both elementary and high school. It is located in the southwestern part of the county in a mining town. The mines are not in production now, however, and the enrollment is dropping because the miners are leaving Wilder to find other employment. The plant is of frame structure and the overall rating was satisfactory. (See Table 24.)

Long Branch school plant is a new building, only four years old, and consists of three classrooms and a kitchen and lunchroom in the basement. It is of frame structure. Long Branch's overall rating was satisfactory.

Goad is an old plant and did not rate satisfactory in any division of the score card except site. The overall rating was unsatisfactory.

Table 25 shows a summary of the three-or-more-teacher schools. This table indicates that four out of the seven plants rated satisfactory.

TABLE 24

RATINGS OF THE THREE OR MORE TEACHER ELEMENTARY SCHOOLS
ACCORDING TO THE HOLY-ARNOLD SCORE CARD

Name of School	Site	Building	Academic Class- rooms	General Service Rooms	Service System	Total Adjusted Score
1. Goad	C	D	D	D	D	D
2. Long Branch	C	D	C	D	D	C
3. Wilder	C	D	C	D	D	C
4. Armathwaite	B	B	C	C	B	C
5. Allardt	B	B	C	D	C	B
6. Grimsley	B	B	C	D	C	C
7. York Elementary	B	B	C	D	B	B
Number Satis- factory	7	4	6	1	4	6
Number Unsatis- factory	0	3	1	6	3	1

TABLE 25

SUMMARY OF THE SCORES OF THREE OR MORE
TEACHER ELEMENTARY SCHOOLS IN FENTRESS COUNTY

Score	Site	Building	Academic Classrooms	General Service Rooms	Service System	Total Adjusted Score
A	0	0	0	0	0	0
B	4	4	0	0	2	0
C	3	0	6	1	2	4
D	0	3	1	6	3	3
Total	7	7	7	7	7	7

Clarkrange High School and York Institute.-- The Clarkrange High School has grades one through twelve. The plant consists of four buildings. The main building has six classrooms, a small auditorium, a library, and principal's office. It is constructed of brick and frame. A new science and home economics room was added to this building in 1950, and these two rooms are of brick structure. This school has a frame structure gymnasium, and two classrooms and a shop are located in the basement. A small frame building with four classrooms is located nearby. An old army barracks building has one classroom, kitchen, and lunchroom.

The Clarkrange School plant is a poor makeshift for a school plant according to the rating by the score card. It rated unsatisfactory in all divisions of the score card except the site. The barracks and smaller frame building are only temporary makeshift and were found to be in bad condition. The frame house is not underpinned; it leaks in places, and the light in the classroom is very bad. The frame part of the main building is also in bad condition. This building, together with the gymnasium, is heated by a central heating plant, but it does not have indoor toilets or washing facilities. (See Table 26.)

The York Institute was found to be in good condition. This plant consists of several buildings. They are: the main building, the manual arts shop building, the agriculture shop building, and the gymnasium.

The main building is of brick structure with an adequate number of classrooms, an auditorium, library, indoor toilets, principal's office, and reception room. While the manual arts building consists of a classroom, teacher's office, and a shop which is adequately equipped, the

agriculture building consists of an agriculture shop and general building trades-shop combined along with two classrooms. The gymnasium consists of the playing area, shower room, dressing rooms, toilets, and two classrooms.

All of the buildings are heated by central heating plants. The plant also has a farm consisting of about three hundred acres, along with a stock barn and a good herd of cattle. On the farm there is one house. The plant also has a principal's home, an apartment for teachers, and a home for the general trades teacher. The plant rated satisfactory in all divisions of the score card except administrative rooms. The average rating was good. This school has grades nine through twelve.

General Summary of Survey.-- In considering the present condition of the school plants in the county, a table was arranged to show the rating of each school plant.

Table 27 shows that three one-teacher schools rated satisfactory, while twenty schools rated unsatisfactory. Of the two-teacher schools, only one plant rated satisfactory while eleven rated unsatisfactory. The three- or more-teacher schools, including the secondary and combined elementary and secondary schools, rated as follows: one good, four fair, and four unsatisfactory. For a total rating there were nine school plants rated satisfactory while thirty-five were rated unsatisfactory.

Table 28 lists the names of the school plants that rated satisfactory.

Map 4 locates the school plants in the county that rated satisfactory. This map indicates that two plants are located in the Second District, three in the First District, two in the Third District,

one in the Fourth District, and one in the Fifth District.

Table 29 reflects the general services provided the Fentress County school plants as found in the survey. This table was divided to indicate the type of school plant and the number of children receiving each of the services. There are a total of seven central heating plants in the county. Out of 4,109 pupils, 2,534 have access to a central heating plant. This means about sixty-one per cent of the children have access to a central heating plant.

Most of the school plants have electric lights; however, most of the lights consist of drop bulbs without globes or shades and are not the most desirable type. Thirty-five of the forty-four school plants have electric lights, and a total of 3,905 of the pupils have access to this light. Thus, about ninety-five per cent of the children are receiving this service. Twenty-five school plants have access to a water system with electric pumps or city water. Not many of the schools, however, have drinking fountains at present. Three of the school plants do not have any water on the school ground.

Only five school plants have indoor toilets. All other schools use outdoor privies.

An interesting service was found in the hot lunch program in the county. A total of twenty-seven school plants provide hot lunches to 3,408 students. This means that about eighty-five per cent of the pupils in the county have access to hot lunches. With the exception of Campbell, East Jamestown, and Manson, all the school plants with two teachers or more have hot lunch programs. Five one-teacher schools also have such programs.

TABLE 26

RATINGS AND SUMMARY OF CLARKRANGE HIGH SCHOOL
AND YORK INSTITUTE ACCORDING TO HOLY-ARNOLD SCORE CARD

Division of Score Card	Clarkrange Score	York Institute Score
Site	C	B
Building	D	B
Academic Classrooms	D	B
Special Rooms	D	C
General Service Rooms	D	C
Administrative Rooms	D	D
Service System	D	B
Total Adjusted Score	D	B

TABLE 27

TOTAL ADJUSTED SCORES OF ALL ELEMENTARY AND SECONDARY SCHOOLS
OF FENTRESS COUNTY ACCORDING TO HOLY-ARNOLD SCORE CARD

Type of School	<u>Scores</u>				Total
	A	B	C	D	
One-Teacher	0	0	3	20	23
Two-Teacher	0	0	1	11	12
Three-or More-Teacher	0	1	4	4	9
Total	0	1	8	35	44

TABLE 28

NAMES OF SCHOOLS IN FENTRESS COUNTY
 THAT RATE SATISFACTORY WITH THE NUMBER OF TEACHERS AND NUMBER
 ENROLLED ACCORDING TO HOLY-ARNOLD SCORE CARD--JANUARY 1, 1953

Name of School	Enrolled	Number of Teachers
1. Pall Mall	62	2
2. Armathwaite	183	5
3. Allardt	259	8
4. Grimsley	248	8
5. Frogge Chapel	22	1
6. Kings Mountain	24	1
7. Boatland	19	1
8. York Elementary	915	27
9. York Institute	410	15
Total	2,142	68

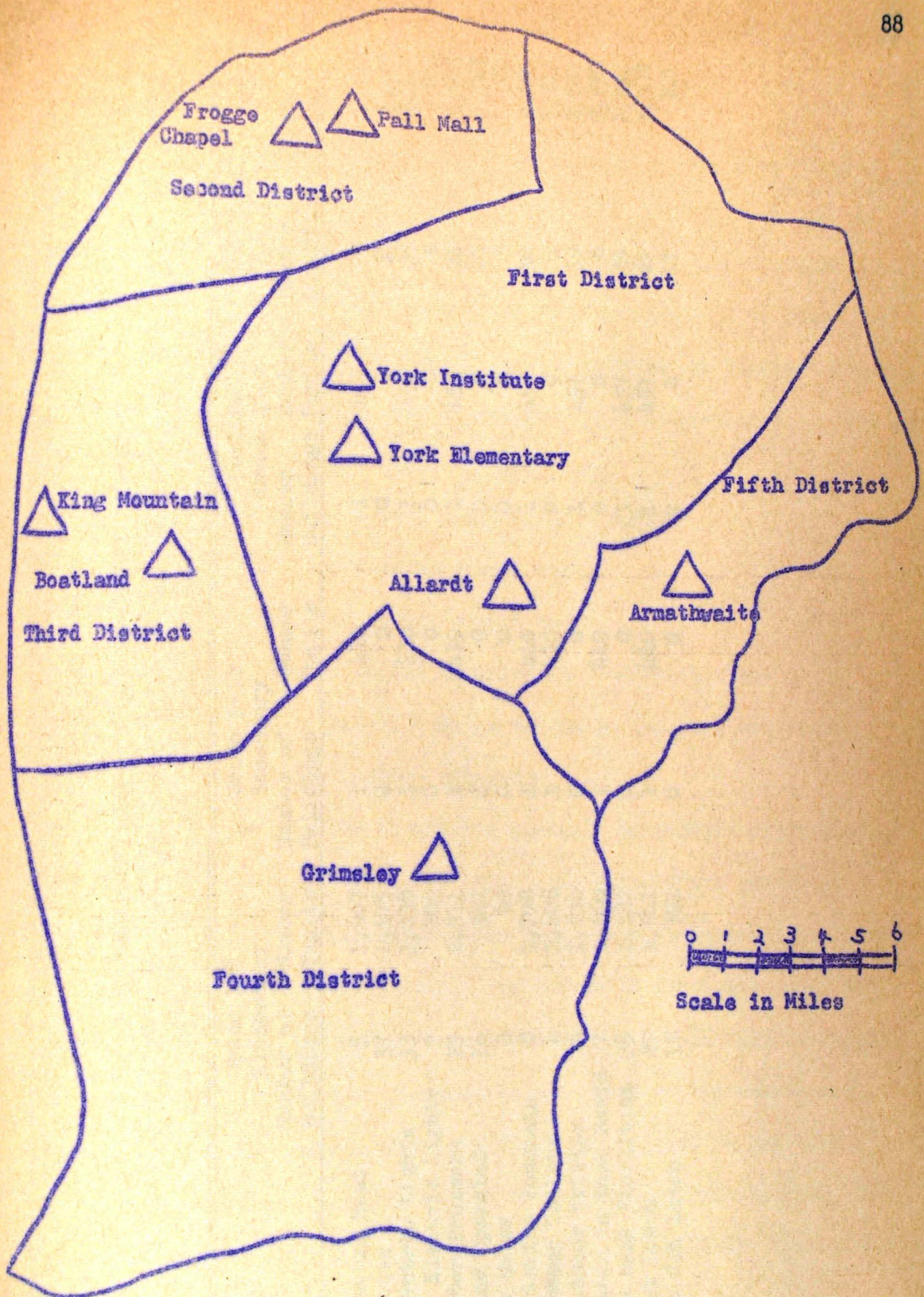
Scale in Miles

Names and Location of Schools

Fentress County that Rated Satisfactory

According to Holy-Arnold Score

Card--January 1, 1953.



Map 4.-- The Name and Location of Schools in Fentress County that Rated Satisfactory according to Holy-Arnold Score Card, January 1, 1953.

TABLE 29

GENERAL SERVICES OF FENTRESS COUNTY SCHOOLS

Services	Grade 1-8 Elementary		Grade 9-12 Secondary		Combine Grade 1-12		Total	
	Number of Buildings	Number Pupils	Number of Buildings	Number Pupils	Number Buildings	Number Pupils	Number of Buildings	Number of Pupils
1. Central Heat	5	1,667	1	410	1	457	7	2,534
2. Stoves	37	1,575	0	0	0	0	37	1,575
3. Electric Lights	33	3,038	1	410	1	457	35	3,905
4. No Electric Lights	9	204	0	0	0	0	9	204
5. Water Pressure	23	2,811	1	410	1	457	25	3,678
6. Hand Operated	16	342	0	0	0	0	16	342
7. No Water	3	89	0	0	0	0	3	89
8. Drinking Fountain	8	1,798	1	410	1	457	10	2,665
9. Indoor Toilets	4	1,408	1	410	0	0	5	1,818
10. Outdoor Privies	38	1,834	0	0	1	457	39	2,291
11. Water in Wash Basin	7	1,860	1	410	0	0	8	2,270
12. No Wash Facilities	35	1,382	0	0	1	457	36	1,839
13. Hot Lunch	25	2,541	1	410	1	457	27	3,408
14. No Hot Lunch	17	701	0	0	0	0	17	701

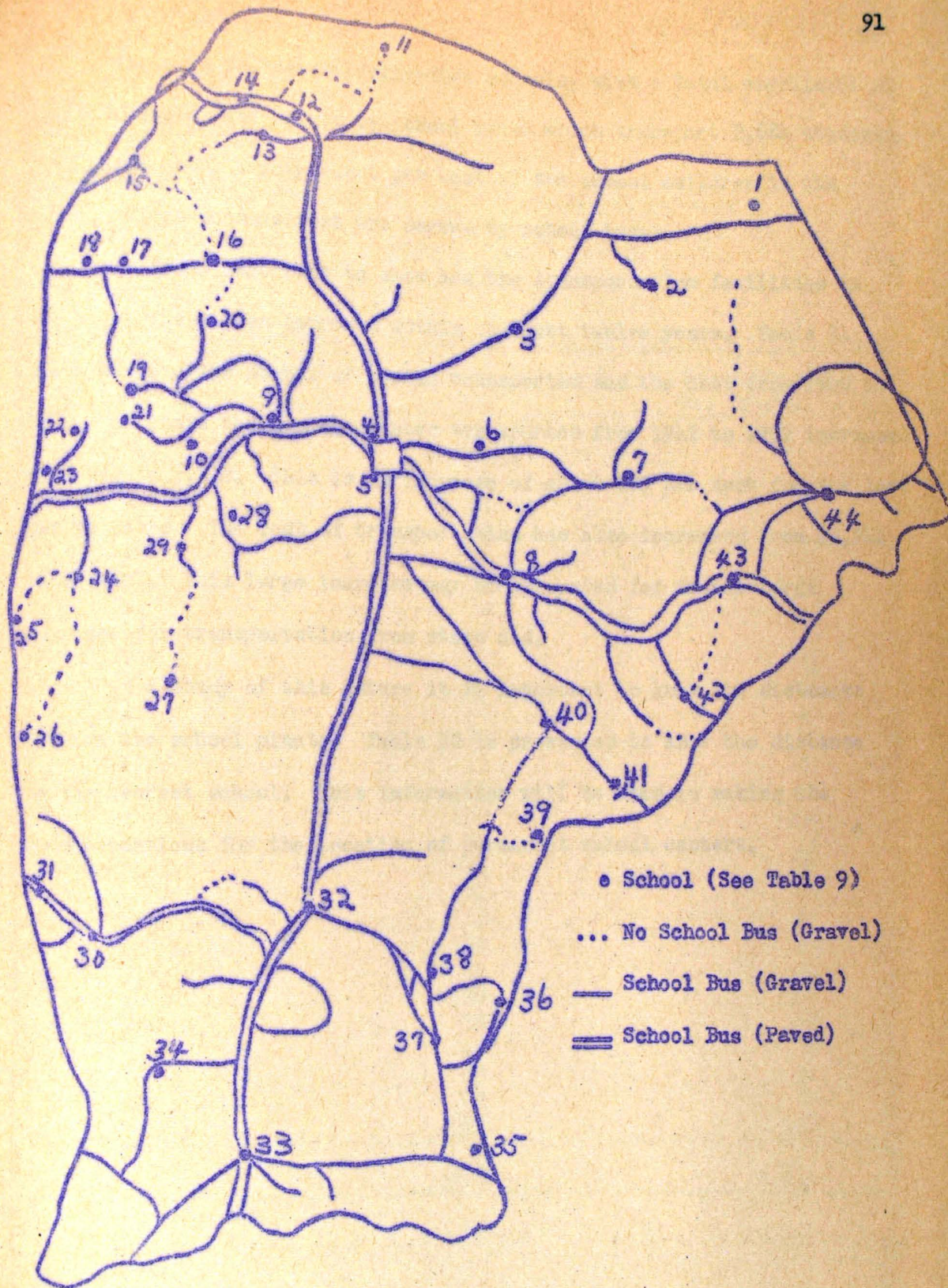
School Transportation

The school transportation problem seems to have a great effect on any attempt to locate new attendance centers; therefore, it is the purpose of this section to present a general picture of the school transportation in Fentress County. It is not the purpose of this study to make a complete study of the transportation problems in Fentress County. Consequently, an effort is made to present the transportation picture as it exists today and to present such factors as:

1. The number of school buses in the county
2. The roads traveled by school buses
3. The schools served by school buses
4. The number of pupils enrolled for transportation
5. The improvement of transportation in the last ten years
6. The distance between schools

School buses in the county are operated by private contractors. The county does not own any school bus. The schools are served by eighteen forty-eight-passenger and two thirty-six-passenger school buses in addition to eight panel trucks. The contracts for these buses are usually given according to the lowest bidder for the particular route.

Map 5 indicates that practically all roads in the county are traveled by school buses. There are five schools that do not have a school bus passing by the school. In this class are Rottens Fork, Kings Mountain, Sweet Gum, Bills Creek, and Press Beaty, although not all other schools have children transported to them.



Map 5.-- Roads Traveled by School Buses in Fentress County, January 1, 1953.

Table 30 indicates twenty-five schools, with a total enrollment of 3,818 students, are served by school buses which transport 2,684 students. This means about eighty-eight per cent of the school children in the county attend schools that are served by school buses.

It seems important to show how the transportation facilities in the county have been improved within the last twelve years. Table 31 shows the average number of pupils transported and the cost from 1940 to 1952. It shows the average number transported from 1942 to 1952 increased from 598 to 2,210. This is an increase of about 270 per cent for the last twelve years. The cost of transportation has also increased from \$9,941 to \$57,467. This large increase may be accounted for in the large increase for transportation from state aid.

In a study of this nature it is important to know the distances between the school plants. Table 32 is presented to show the distance to the nearest school. This information will be used in making the recommendations for the location of permanent school centers.

TABLE 30

NAMES OF SCHOOLS PROVIDING TRANSPORTATION AND NUMBER
OF STUDENTS ENROLLED IN EACH SCHOOL FOR TRANSPORTATION
JANUARY 1, 1953

Name of School	Number Enrolled in School	Number Enrolled For Transportation
Allardt	259	195
Campbell	65	32
Sharp	75	48
Stockton	60	60
York	915	709
Broad Door	35	31
Fairview	34	12
Forbus	73	47
Pall Mall	62	15
Red Hill	49	39
Bowden	23	10
Little Crab	36	10
Manson	51	29
D. O. Beaty	30	19
Clarkrange	457	390
Davidson	69	5
Grimsley	248	203
Jones	24	18
Long Branch	112	92
Martha Washington	48	22
Roslin	67	39
Wilder	120	104
Armathwaite	183	130
Goad	92	82
Shirley	29	13
Tinch	52	30
York Institute	410	300
Total	3,818	2,684

TABLE 31

AVERAGE NUMBER OF PUPILS TRANSPORTED
FOR SPECIFIED YEARS IN FENTRESS COUNTY

Year	Average Number Transported	Total Cost of Transportation
1940	598	\$ 9,941
1941	751	10,740
1942	705	12,735
1943	694	13,467
1944	712	16,000
1945	761	15,400
1946	919	15,405
1947	1,100	20,445
1948	1,252	27,451
1949	1,487	36,586
1950	1,801	45,892
1951	2,035	52,225
1952	2,210	57,467

TABLE 32

DISTANCE BETWEEN CLOSEST SCHOOLS IN FENTRESS COUNTY

Code No.	From Name of School	Code No.	To Name of Closest School	Distance Between Schools Miles
1	Alticrest	2	Sharp	5.0
3	East Jamestown	2	Sharp	5.3
6	Round Mountain	5	York Elementary	2.7
7	Stockton	8	Allardt	4.7
40	Tinch	8	Allardt	5.6
41	Silver Pine	40	Tinch	3.1
42	Shirley	43	Armthwaite	4.5
44	Goad	43	Armthwaite	5.3
39	Press Beaty	38	Long Branch	3.8
36	D. O. Beaty	37	Roslin	3.6
35	Jones	37	Roslin	5.8
38	Long Branch	32	Grimsley	4.2
41	Long Branch	37	Roslin	2.4
34	Martha Washington	33	Clarkrange	3.6
31	Davidson	30	Wilder	1.9
11	Rottens Fork	12	Pall Mall	2.9
13	Frogge Chapel	12	Pall Mall	1.1
14	Forbus	12	Pall Mall	2.3
15	Red Hill	16	Fairview	4.4
17	Hinds	16	Fairview	2.6
18	Broad Door	17	Hinds	1.6
20	Upper Crab	19	Little Crab	4.2
19	Little Crab	10	Helena	3.5
21	Greer	10	Helena	3.0
10	Helena	9	Campbell	1.6
22	East Fork	23	Cooper	1.4
25	Kings Mountain	24	Manson	2.5
26	Sweet Gum	24	Manson	3.2
27	Bills Creek	29	Boatland	4.1
29	Boatland	9	Campbell	5.0
28	Bowden	9	Campbell	4.6

Summary

It has been the purpose of this chapter to present data and information that would show the present status of the school plants in Fentress County and the transportation facilities provided in the county. This study has indicated that the conditions of the school plants are bad in the county. From the study it seems that the county has too many one- and two-teacher school plants that do not furnish the facilities that are expected of a good school plant. The sites are in many instances too small and not adaptable to expansion. With a few exceptions, the buildings are inadequate and unsafe. The county does not have any fire-proof buildings. It seems that many of the buildings are too old for major repairs. For these reasons many children of Fentress County are not being provided the plant facilities expected by the Tennessee State Department of Education. permanent school centers in Fentress County.

The transportation in the county seems to be fairly adequate, since it has been increased so much for the past twelve years. Eighty-eight per cent of the students enrolled in the county attend schools that are served by school buses. Thirty-nine of the forty-four schools are located on roads traveled by school buses. Therefore, it seems that the roads of the county do not present a problem in the location of new and permanent school centers. according to the survey made in this study;

(a) the present existing school plant; (b) the population

(c) the transportation facilities possible;

CHAPTER IV

SUMMARY AND RECOMMENDATIONS

It has been the purpose of this study to determine the location of permanent school centers in Fentress County. To achieve this objective it was necessary to study four sub-problems that influence the location of permanent school plants. They were:

1. To determine the geographic influences of the county
2. To locate the population centers and to identify the population trends
3. To determine the enrollment trends of Fentress County schools
4. To determine the status of existing school plants and transportation

A major conclusion drawn from this study is that there is a need for the establishment of permanent school centers in Fentress County. The location of these areas is presented in this chapter in the form of recommended school centers in the most feasible locations.

The recommendations presented in this study are based on the data and information presented in previous chapters.

The major factors to be considered in regrouping the schools are as follows: (1) the number of students enrolled; (2) the adequacy of the existing school plants, rated according to the survey made in this study; (3) the distance to the nearest existing school plant; (4) the population trend in the community; (5) the transportation facilities possible; (6) the economy of the plant.

The recommendations have been made after the factors above were considered. They are presented in the following sections of this study and are organized in relation to the location of the permanent center. The names of existing schools are shown, with the enrollment, the number of teachers, the number enrolled for transportation, and the distance from the existing school to the recommended location. The data presented in this part of the study are those obtained as of January 1, 1953.

Immediately following these data, there is presented in narrative form a discussion of the recommendation, showing the reasons for regrouping the schools and the facilities which will be needed to accommodate the number of children.

The recommendations are as follows:

Unit I - Location - Clarkrange

School	Enrollment		Teachers		Transported Grades 1-12	Distance To Center
	Grades 1-6	7-12	Grades 1-6	7-12		
Clarkrange	220	237	6	9	390	0
Martha Washington	45	3	2		22	3.6
	265	240	8	9	412	

As shown in chapters two and three, Clarkrange is a fifteen-teacher school and is well located. The site is adequate, but the building did not rate satisfactory and the plant does not provide adequate facilities. The community is one of the largest in the Fourth District. It is a farming community and is the outstanding section in the production of cash crops such as beans and strawberries. As revealed in the survey, the community is increasing in both population and in school enrollment. This

community is the center of the only high school supported and controlled by the county. Clarkrange is nearly centrally located in relation to the surrounding schools, which are Roslin, Martha Washington, Wilder, and Grimsley schools. It is not so centrally located as Grimsley. However, it has been the high school center for many years. Furthermore, this disadvantage seems to be offset by the fact that the school has excellent community support.

As recorded in the survey, the Clarkrange School Plant consists of four different buildings. These buildings are a main building in which the high school is housed, an old elementary school building, an army barracks building, and a gymnasium. All buildings are of frame structure with the exception of a new science room and home economics room. These two rooms are adequate and well equipped. The main high school building and gymnasium are located near a central heating plant which was installed in 1950. This plant seems adequate to provide the heat for a new building.

Martha Washington is a two-teacher unit. It is located three and six tenths miles northwest of Clarkrange on a gravel road. A bus transporting high school students to Clarkrange passes the school. The enrollment at this school is only forty-five, and the school, a one-teacher school in 1950, seems to have trouble in maintaining sufficient students to meet the state requirements for a two-teacher school.

As revealed in the survey, the plant consists of two classrooms and a lunch room separate from the main building. The main building is an old frame structure and according to the survey is not a satisfactory

plant. Therefore, it is recommended that the children from the Martha Washington School be transported to the Clarkrange center. This would make a sufficiently large center, and it seems that better facilities and accommodations could be provided in this size school. It is also recommended that a new building be constructed at Clarkrange, consisting of approximately seventeen additional classrooms, along with the necessary auxiliary rooms and general service rooms to accommodate a unit of this size. In future plans careful consideration should be given to the use of the present gymnasium, science and home economics rooms and to the central heating plant. Transportation of the Martha Washington students would not present too much of a problem since a bus passes the school. It would probably require some re-routing but no additional transportation facilities.

The additional cost at Clarkrange for added facilities and housing would be rather small. Therefore, it seems it would be more economical to transport the Martha Washington students to this larger center.

Unit II - Location - Roslin

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
Roslin	67	2	39	0
Jones	24	1	18	5.8
D. O. Beaty	30	1	20	3.6
Long Branch	112	3	92	2.4
Press Beaty	12	1	0	6.2
	245	8	169	

Roslin is a two-teacher school which is located in a good farming section of the Fourth Civil District. It is centrally located in relation to the surrounding schools. According to the survey the building is not satisfactory. The site, however, is well situated and is accessible to the surrounding communities.

Jones, D. O. Beaty, and Press Beaty Schools are all one-teacher units and are located within about six miles of the Roslin center.

The tables in previous chapters show that D. O. Beaty School has a population of seven children in the community of school age, while Press Beaty has thirteen, and Jones has seventeen children of school age. This indicates that children from other communities are transported to D. O. Beaty and Jones schools in order to have a sufficient number of students for a one-teacher school. In addition, the Press Beaty school has only twelve students enrolled. This lack of students in these respective communities should be sufficient reason to transport the pupils to a larger permanent center. In addition to the above conditions these school plants are unsatisfactory according to the survey made in this study.

Long Branch is a three-teacher school located two and four-tenths miles from the Roslin center. It is apparent from information in this study that ninety-two of the 112 students in this school are transported from outside the community. Thus, it appears that these students should be transported to the Roslin center with little additional time and cost.

Therefore, it is recommended that all of the above schools be transported to the Roslin school center and that additional plant

facilities be provided. This change would require a plant of approximately eight classrooms with additional auxiliary and general service rooms required of a plant of this size. The transportation could be re-routed with no additional bus facilities required. It seems that all of these schools combined would make a good permanent center with a teacher for each grade. Furthermore, more adequate facilities could be provided and a more functional educational program could be developed.

Unit III - Location - Grimsley

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
Grimsley	248	8	203	0

It is apparent from the information revealed in chapters two and three of this study that Grimsley is a growing community and seems to be a permanent center of population. It is located in a good farming community on the Cumberland Plateau in the Fourth Civil District.

The plant consists of two buildings: one, an old building and the other, a new building. The old building consists of six classrooms and a basement. It is in a bad state of repair and seems to be structurally unsound. The county has purchased plans and specifications to provide a new plant at this center. With the completion of these plans, there should be an adequate plant.

It is recommended that the plans for the new plant be completed. It is apparent that no additional consolidation is necessary at this center since there is already a large enrollment and the community is still growing.

Unit IV - Location - Wilder

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
Wilder	120	3	94	0
Davidson	69	2	5	1.9
	189	5	99	

Wilder is a small community in the Fourth Civil District, and the school there consists of a five room plant. It is a frame building and was formerly a junior high school plant. The community was at one time a progressive mining town; however, in recent years the mines have closed and the community is decreasing in population; the same condition is reflected in the school enrollment.

Davidson is located less than two miles west of Wilder. It has about the same background as Wilder, and the population is also decreasing. The school plant in this community consists of three classrooms and an auditorium. This building is in a very bad state of repair and is one of the oldest buildings in the county. As shown in the survey, it is poorly located and the site is very inadequate. There is no room for expanding the site, since it is surrounded by dwelling houses on one side and by a branch on the other side.

It is recommended that the students from Davidson be transported to Wilder. Since a bus operates between the two schools, there would not be any additional transportation required. The building at Wilder is sufficiently large to house the students in an adequate manner. However, the building at Wilder needs repairing to make an adequate plant.

The reason for recommending a center at Wilder instead of Clark-range or Grimsley is because of the mountainous terrain between these places. During the winter the mountainous road is very narrow and dangerous. It is necessary to travel down one mountain and up another in order to reach either of these school centers and the distance is approximately ten miles. This seems too long a distance to haul elementary children over such a hazardous road.

Unit V - Location - Allardt

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
Allardt	259	8	195	0
Stockton	60	2	60	4.7
Tinch	52	2	30	5.6
Silver Pine	25	1	19	8.7
	396	13	304	

Allardt is a progressive farming community located in the First District. This is about six miles east of Jamestown. It is one of the oldest communities in the county and a large portion of the county wealth is located in this community. As seen in chapters two and three, the community is growing and the school enrollment is increasing. Allardt is centrally located between the Stockton and Tinch schools.

As indicated in chapter three, the building consists of eight classrooms. The site consists of about seven acres and is well located. The plant rated satisfactory according to the survey. It is expandable and, according to the plans and specifications in possession of the County

Board of Education, is capable of becoming an adequate plant. The Stockton and Tinch schools are both two-teacher units. They are nearly an equal distance from Allardt and both schools are provided transportation facilities. The buses that pass these schools also pass the Allardt school. It seems feasible, therefore, to extend the transportation and house the students from these two schools at Allardt, where they could be provided better facilities and a more balanced educational program.

Silver Pine school is a one-teacher unit and is located southeast of the Tinch community. As shown in chapter two, it is declared an isolated school. However, there is a bus operating between Silver Pine and Tinch school. It is apparent that the children could be transported to Allardt without too much hardship on the students and with a small additional cost of transportation. The community is small, and, unless the school is declared isolated, it is very doubtful that a sufficient average daily attendance can be maintained to support a one-teacher school.

Therefore, it is recommended that the pupils from Silver Pine, Stockton, and Tinch schools be transported to the Allardt School. It would be necessary to provide five additional classrooms to house the students. The plans in possession of the County Board of Education should be completed for the Allardt School. It seems that one additional bus would be required to transport the children from Stockton, while no additional facilities would be required to provide transportation from Silver Pine and Tinch. This center should have about thirteen teachers with a modern school plant and adequate auxiliary and general service rooms for a plant of this size.

Unit IV - Location - Armathwaite

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
Armathwaite	183	5	130	0
Goad	92	3	82	5.3
Shirley	29	1	13	4.5
	304	9	225	

Armathwaite is located in the Fifth Civil District about seventeen miles east of Jamestown. It is in a good farming community and the school is about equally distant from Goad and Shirley schools. As shown in chapters two and three, the school plant is satisfactory. It is a new building consisting of six classrooms, a library, kitchen, combination auditorium-gymnasium. It has a central heating plant, inside restrooms, a large basement and additional storage rooms. The building is part brick and part frame with an adequate site and is well located.

The data show the Goad school to be a three-teacher unit with an unsatisfactory school plant. As indicated above, there are eighty-two of the ninety-two students transported to this school. It is located near Armathwaite, and school buses pass this school going through Armathwaite to transport high school students. It seems that the students from Goad could be transported to Armathwaite with a small additional cost in transportation, where the students could be provided better housing conditions and more adequate facilities.

Shirley is located about five miles south of Armathwaite in a good farming community. As shown in Table 5, there does not seem to be sufficient children of school age to support a one-teacher school.

There are several large farms in this community, and many of the children in the community come from homes of tenant farmers on these large farms. Therefore, the school enrollment will depend upon how stationary the tenant farmers are.

It is recommended that the children from Goad and Shirley be transported to the Armathwaite school where they could be given better educational facilities. There should be three additional classrooms constructed at this center, and the frame structure of the present building should be rehabilitated. This would provide the center with a modern plant and about nine teachers. This change should result in a more economical school program.

Unit VII - Location - York Elementary

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
York Elementary	915	27	709	0

York Elementary School is the largest school in the county as shown by the data in this study. It has a satisfactory plant; however, it is over-crowded and does not have an adequate number of classrooms.

The main building consists of eighteen classrooms including the two libraries. Five classrooms are provided by rebuilt army barracks; one classroom is in an old dwelling house on the campus, and one classroom is provided in the end of the county maintenance shop. The main building is constructed of brick and is located near a central heating plant with adequate restrooms and drinking fountains.

As indicated in this study, about seven hundred of the students are transported. Approximately 250 of these students are transported from the northern section of the attendance area. The 250 children transported from the northern section should be housed in a new school center located near Pine Haven. This would leave an enrollment of about 650 students at the York center, which would be a sufficient enrollment for approximately twenty-two teachers. The main building would adequately house this enrollment. Consequently the barracks and other temporary classrooms could be eliminated. ... continues.

Unit VIII - Location - York Institute

School	Enrollment Grades 9-12	Teachers Grades 9-12	Transported	Distance To Center
York Institute	410	15	300	0

The York Institute is located in Jamestown and is a secondary school with grades nine through twelve. According to the information presented in this study, it is an adequate school plant. It is well located and seems to be a permanent center.

It is recommended that this center be maintained as a permanent center. There does not seem to be any immediate need at this center.

Unit IX - Location - North Jamestown (new center)

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
North Jamestown (new)	0	0		
Round Mountain	32	1	0	3.7
	32	1	0	

North Jamestown is located about three miles north of the York Elementary School. A site is available at Pine Haven on the property now owned by Alvin C. York.

Round Mountain is a one-teacher school located about four miles from this new center and is close enough so that the students could be transported without any hardship on the students. One bus could transport the children from Round Mountain. As indicated in chapters two and three, this school plant is unsatisfactory. It is located too near this center to be economically sound to continue.

Therefore, it is recommended that the pupils from Round Mountain be transported to the new center. A new plant should be constructed and should consist of approximately eight classrooms with a central heating plant, inside restrooms and drinking fountains, a principal's office, a clinic, storage and cloakroom space, lunch room, kitchen, and a combination playroom-auditorium.

This center would relieve the overcrowded condition at the York Elementary School and care for the pupils from Round Mountain. No additional transportation facilities would be necessary for the York pupils.

Unit X - Location - Campbell

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
Campbell	65	2	32	0
Bowden	23	1	10	4.6
Helena	24	1	0	1.4

Unit X (cont'd)

Greer	18	1	0	4.6
Little Crab	36	1	10	5.1
Upper Crab	17	1	0	6.2
	183	7	52	

As seen in chapters two and three, Campbell is a two-teacher unit, which is located in the First Civil District. It is about five miles west of Jamestown in the Highland River Basin. The community is small and seems to be decreasing in population rather than increasing. It is centrally located in relation to the surrounding schools, since it is about five miles from Bowden in one direction and about five miles from Greer in another direction and about five miles from Little Crab in another direction. As shown above, it is surrounded by small one-teacher schools.

Bowden, Helena, Greer, and Upper Crab are all one-room schools, with low enrollment in each school. Table 5 indicates that each of these communities has a population of twenty or fewer children of school age; therefore, it seems that these schools will have to be moved to another center. This study also indicates that none of the school plants at these schools is satisfactory. Furthermore, each school is accessible to a school bus. The data show that these communities have been decreasing in population for the last decade.

Little Crab is a two-room plant located north of Campbell; it has one teacher, and the enrollment seems to be decreasing. Last year this school had two teachers, but now it has only one because of insufficient

enrollment. A school bus passes the school, and ten of the thirty-six children are transported. The survey indicates this plant is inadequate.

Therefore, it is recommended that a permanent school center be located at Campbell, and a building of sufficient size to house the pupils from Bowden, Helena, Greer, Little Crab, and Upper Crab be constructed. This would require approximately five classrooms and the additional auxiliary and general service rooms. The plans should include central heat, inside restrooms, and drinking facilities. This would provide a more adequate accommodation for these students and a better educational program could be provided. This change may require one additional bus and some re-routing of the present buses, but this plant would then be more economical.

Unit XI - Location - North Manson (new center)

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
Manson	51	2	29	3.3
Cooper	26	1	0	2.4
East Fork	24	1	0	3.8
Kings Mountain	24	1	0	5.5
Sweet Gum	12	1	0	6.4
Bills Creek	18	1	0	8.5
Boatland	19	1	0	4.4
	174	8	29	

In order to select a site for a permanent school center in this section of the county, it seemed necessary to select a new center. This

center is located about three miles from the present site of the Manson School. It is more centrally located than any of the present school sites. This new site is also necessary because of the insufficient size of sites in this section. The present Manson location would probably be the most logical location, but this site is less than an acre in size and cannot be expanded because of a branch about twenty feet from the building and a public road about twenty feet in front and a church about fifty yards on the other side. It would be impossible to enlarge this site.

With the exception of Manson, all of the other one-teacher school units are in danger of falling below the average daily attendance required for a one-teacher school.

As shown in Table 5 of this study, none of these one-teacher schools have more than twenty-five children of school age living in the respective communities; therefore, it seems that these six schools will have to be moved to larger school centers. As shown in Table 28, Kings Mountain and Boatland have satisfactory school plants. However, as pointed out above, they do not have a sufficient enrollment to meet the state requirements. There are buses passing by Manson, Cooper, East Fork, and Boatland this year.

As revealed in chapter two, the population of this district has been decreasing for the last two decades, and it does not seem likely that the population will increase in the near future since all of these schools are located in a very mountainous and hilly area.

Therefore, it is recommended that a new school plant be constructed at the junction of Manson and state road fifty-two, near Pete Wright's

store. Land is available at this site, and it seems to be fairly centrally located in relation to the surrounding schools. This plant should consist of a site containing five acres and a five room building with the necessary auxiliary and general service rooms. This center would be adequate to provide for better health, safety, and general welfare of the children. It seems that one forty-eight passenger bus and two panel trucks would provide the transportation to this center.

Unit XII - Location - Red Hill

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
Red Hill	49	2	39	0
Fairview	34	1	12	4.4
Hinds	22	1	0	7.0
Broad Door	35	1	31	8.6
	140	5	82	

As indicated in chapter two, Red Hill is located in the Second District near the Pickett County line. It is a small community in a farming section of the Highland Rim region. There is a two-teacher school in the community, and a good school spirit prevails.

The school plant consists of a two-room building with a small lunchroom and kitchen. According to the survey, the plant is unsatisfactory. There are forty-nine pupils enrolled and thirty-nine of these students are provided transportation.

Fairview, Hinds, and Broad Door schools are located on a ridge dividing the Cumberland Plateau and the Highland Rim region of the county.

All three communities are sparsely settled and, as indicated in chapter two, neither community has more than twenty-six children of school age. It seems that the teachers transport students from other communities in order to have sufficient attendance to continue the school. All of these schools have one teacher.

According to the data presented in this study, neither of the three school plants is adequate. A school bus passes all three schools, and they are located on an all-weather road.

It is recommended that the pupils from Fairview, Hinds, and Broad Door be transported to Red Hill since Red Hill is better located in relation to the center of population, and there seems to be a better location for the site. The building should consist of four classrooms and other necessary auxiliary rooms and general service facilities. The present site at Red Hill should be enlarged so as to contain a minimum of five acres. One bus would provide transportation for the students from the three one-teacher schools.

Unit XIII - Location - Pall Mall

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
Pall Mall	62	2	15	0
Rottens Fork	28	1	0	2.9
Frogge Chapel	22	1	0	1.1
Forbus	73	2	47	2.3
	185	6	62	

As is shown in chapter two, Pall Mall is located in the Wolf River Valley in the Second District and is one of the leading farming communities of the county.

The school plant was built in 1952. According to the survey, it is a satisfactory school plant consisting of four classrooms, a central heating plant, inside restrooms, and drinking facilities. The site is level and can be expanded. The building is constructed of blocks and brick and the county has plans and specifications to make this an adequate building.

Frogge Chapel is a one-teacher school and is scheduled to be moved to Pall Mall this next year. A teacher was not employed in this school for the coming year and the building has been sold. This action was taken because of the insufficient number of students at this school to justify a one-teacher school. It is located only 1.1 miles from Pall Mall.

Rottens Fork is a one-teacher school and is located about three miles from Pall Mall School. According to the survey, it is not a satisfactory building. The enrollment is not too large, and it seems to be decreasing.

Forbus is located 2.3 miles from Pall Mall. It is a two-teacher school and the plant consists of three rooms. The population of this community seems to be decreasing. According to this study, the building is unsatisfactory.

It is recommended that Forbus, Rottens Fork, and Frogge Chapel Schools be consolidated with Pall Mall. This would require one additional bus, and one additional classroom at Pall Mall. It is recommended that

a combination auditorium-lunchroom also be completed at Pall Mall according to the plans and specifications in possession of the County Board of Education.

Unit XIV - Location - Sharp

School	Enrollment Grades 1-8	Teachers Grades 1-8	Transported	Distance To Center
Sharp	75	2	48	0
Alticrest	38	1	0	5.0
East Jamestown	70	2	0	5.3
	183	5	48	

As shown in chapter two, Sharp is located in the First District in the northeastern section of the county. It is a rural community in which the principal work of the people is farming and saw-mill activity. The school plant consists of two rooms and a site that can be expanded. The plant is not adequate. It is centrally located in relation to East Jamestown and Alticrest and is located on a good gravel road.

Alticrest is a one-teacher school about five miles east of the Sharp community. It does not have an adequate school plant. A school bus passes the school transporting high school children to York Institute. The population remains about the same. Much of the land is owned by Stroms Coal and Lumber Company and the Gernt Estate; therefore, many of the people of this community rent or lease their homes and the population is unstable.

East Jamestown is located about five miles west of the Sharp community and is located on a very inadequate site. The area is less

than one acre and is too near the road. The back of the site breaks sharply over a steep embankment. Because of this situation, it would be impossible to expand the site, and the building scored unsatisfactory according to the survey. The building is a two-room unit.

Therefore, it is recommended that a five room plant be erected at the Sharp School together with the necessary auxiliary and general service rooms. The students from Alticrest and East Jamestown should be transported to this unit.

It seems desirable to recognize that certain problems concerning the relocation of the school centers in Fentress County are similar to the problems that all other counties in the state are encountering in the consolidation of school centers.

It is recognized that this study and the recommendations made from the results of this study embrace a long-term plan. Also, it is well to remember that any coordinated efforts toward reaching the goal recommended must have its leadership from the county level. Without such leadership, the program may go in separate directions. In view of these conditions, it appears fitting to make some suggestions toward improving the situation.

Before much can be accomplished it will be necessary for the local officials to recognize the problem and agree upon a master plan for the county. After the master plan has been agreed upon, it should be followed and carried out as time and the finance of the county will permit. The plan should be publicized and explained to the citizens of the county.

It seems evident from this study that many of the smaller one-teacher schools will be discontinued in the near future because of insufficient enrollment. As these schools have to be discontinued, the students can perhaps be worked into the master plan without too much opposition. It is felt that the county should start a building program immediately in order to meet the school needs of the people of Fentress County.

Summary

To understand clearly the nature and implications of the findings of this study, this next section will present the findings in a more composite manner so as to give a better picture of the results of the study. The results were:

1. The background features of the county have influenced the school building program.
2. The population of the county had about a forty-three per cent increase from 1920 to 1950.
3. The First and Fourth Minor Civil Districts have increased in population while the Second and Third Districts are decreasing, and the Fifth District has stayed about the same for the last decade.
4. The First and Fourth Districts contain about seventy-eight per cent of the population of the county.
5. The school enrollment of the county has probably reached its peak.
6. The school enrollment is in proportion to the population.

7. The holding power of two- or more-teacher schools is better than the one-teacher schools.
8. About sixty per cent of the school buildings in the county are from eleven to thirty years of age.
9. Sixty per cent of the children enrolled in the county are housed in buildings from twenty-one to thirty years old.
10. There are twenty-three one-teacher, twelve two-teacher, and nine three- or more-teacher schools in the county.
11. There are 149 classrooms in the county.
12. Thirty-eight of the school sites contain one acre or less.
13. Three of the one-teacher schools rated satisfactory.
14. One of the two-teacher school plants rated satisfactory.
15. Four of the three- or more-teacher school plants rated satisfactory.
16. One of the two high schools rated satisfactory.
17. A total of nine school plants in the county rated satisfactory.
18. Most of the roads in the county are traveled by school buses.
19. Twenty-seven schools in the county provide transportation.
20. Transportation facilities have increased tremendously for the last decade.

The recommendations included fourteen permanent locations for school plants in the county, together with the number of students and the approximate size of the plant, and additional transportation facilities, if any, that would be required.

The recommendations that have been made concerning the location of the permanent school centers are to be considered as suggestions which are based upon the best data that it has been possible to obtain.

1. Report of the American School Buildings Commission. American School Buildings Commission, 1927. Nashville, Tennessee: Tennessee State Board of Education, P. 10.

2. Report of the Department of Education, For the Year 1927-28. Nashville, Tennessee: Tennessee State Board of Education, P. 10.

3. The Modern Rural School. New York: McGraw-Hill Book Co., 1928. Pp. xii + 494.

4. Report of the Board of County Trustees, Jamestown, Tennessee. P. 50.

5. History of Education. New York: McGraw-Hill Book Co., 1928. Pp. xxix + 495.

6. History of Fentress County. Nashville, Tennessee: Fentress Co., 1915. P. 165.

7. Citizens Workbook for Evaluating School Buildings. Dubuque, Iowa: Wm. C. Brown Co., 1951. Pp. iii + 39.

8. The Cumberland Plateau in Tennessee. Knoxville, Tennessee: University of Tennessee, 1944. P. 31.

9. Report of the Board of Education, June 10, 1948.

10. Guide for Planning School House Construction. W. D. Peabody, Secretary. Nashville, Tennessee: George Peabody College, 1929. P. 209.

11. Report of the State Department of Education, July, 1952.

12. Report of the State Department of Education, July, 1952.

13. Census Data, Census of Fentress County, Tennessee, 1930-3, May, 1932. Unpublished report in office of the Board of Schools, Jamestown, Tennessee.

14. Report of the Citizens' School Survey. New York: McGraw-Hill Book Co., 1952. P. 209.

BIBLIOGRAPHY

- American Association of School Administrators. American School Buildings. Twenty-Seventh Yearbook of the American Association of School Administrators. Washington: The National Education Association, 1949. P. 525.
- Annual Statistical Report of the Department of Education, For the Year Ending June 30, 1951. Nashville, Tennessee: Tennessee State Department of Education. P. 165.
- Butterworth, J. E., and Dawson, Howard. The Modern Rural School. New York: McGraw-Hill Book Co., 1948. Pp. xii / 494.
- General Warranty Deed Book. B-2. Office of County Trustee, Jamestown, Tennessee. P. 600.
- Good, Carter V. Dictionary of Education. New York: McGraw-Hill Book Co., 1945. Pp. xxxix / 495.
- Hogue, Albert R. History of Fentress County. Nashville, Tennessee: Williams Press Co., 1916. P. 165.
- Landis, J. L. and Sumption, M. L. Citizens Workbook for Evaluating School Buildings. Dubuque, Iowa: Wm. C. Brown Co., 1951. Pp. iii / 39.
- Masters, F. N. and Allred, C. E. The Cumberland Plateau in Tennessee. Agricultural Experiment Station, Bulletin No. 192. Knoxville, Tennessee: University of Tennessee, 1944. P. 31.
- "Minutes of Fentress County, Tennessee, Board of Education, June 10, 1948."
- National Council on School House Construction. Guide for Planning School Plants. National Council on School House Construction, W. D. McClurkin, secretary. Nashville, Tennessee: George Peabody College, 1951. Pp. viii / 209.
- Rules and Regulations, 1952-1953. Tennessee State Board of Education. Nashville, Tennessee: State Department of Education. July, 1952. P. 105.
- "Summary of School Census Data," Census of Fentress County, Tennessee, Schools. Form TSC-3, May, 1952. Unpublished report in office of superintendent of schools, Jamestown, Tennessee.
- Sumption, M. R. How to Conduct a Citizens' School Survey. New York: Prentice-Hall Book Co., 1952. P. 209.

- U. S. Bureau of Census. County and City Data Book: 1949. Statistical Supplement. U. S. Department of Commerce. Washington: Government Printing Office, 1949.
- U. S. Bureau of Census. U. S. Census of Population: 1950. Vol. 1, Number of Inhabitants. U. S. Department of Commerce. Washington: Government Printing Office, 1950.
- U. S. Office of Education. First Progress Report of the School Facilities Survey. Federal Security Agency. Washington: Government Printing Office, 1952. Pp. ix + 77.
- and improvements. Included
- Accessibility, Environment,
- of Water, Areas, and Landscaping.
- of sufficient size to care for a total program
- to provide these services the site should
- for any combination of grades one through
- for any combination of grades seven through
- for any twelve-grade school allowing, in addition
- one additional acre for each one hundred
- enrollment.
- to the site, it should be accessible to all
- The environment should be free from smoke,
- establishments, and fire hazards. The form
- as to allow the maximum play and
- and allow for good drainage. The nature of the soil
- to grow grass, trees, and shrubbery. The improve-
- facilities and equipment; also the school
- Memphis, Tennessee

Appendix A

MAJOR FEATURES OF AN ADEQUATE SCHOOL PLANT*

I. School Site.

The school site should be selected in accordance with acceptable principles as to location, physical features and improvements. Included in these principles are such factors as: Accessibility, Environment, Size of Sites, Form, Nature of Soil, Arrangements of Space, and Landscaping.

The site should be of sufficient size to care for a total program of public education. In order to provide these services the site should contain a minimum of four acres for any combination of grades one through eight; and eight acres for any combination of grades seven through twelve; and eight acres for any twelve-grade school allowing, in addition to these basic requirements, one additional acre for each one hundred pupils of anticipated enrollment.

In addition to the size of site, it should be accessible to as many students as possible. The environment should be free from smoke, traffic hazards, industrial establishments, and fire hazards. The form of the site should be so situated as to allow the maximum play and recreational areas, and allow for good drainage; the nature of the soil should be good enough to grow grass, trees, and shrubbery. The improvements should include playground facilities and equipment; also the school

*Major Features of an Adequate School Plant. Nashville, Tennessee: State Department of Education, 1950.

site should be landscaped and provisions made for walks, driveways, service entrances, and trees and shrubbery.

II. Building.

All school buildings, regardless of size or type, should be planned for maximum use. In order that this may be accomplished, it is necessary to consider the following factors:

- A. **Placement:** This includes the location of the school plant in proper relation to light and entrance, or orientation; the position on the site.
- B. **Educational Plan:** The building should provide for economical expansion and flexibility and sufficient number of classrooms to accommodate the enrollment, with at least an economical plan of administration.
- C. **Gross Structure:** The structure should be sound and in good repair. The building should be of fire-resistant materials, if possible; the walls should be straight and structurally sound; the foundation should be solid and firm with proper ventilation, if of wood or frame structure; the roof should be in good repair, not leaky, and the best roof would be fireproof, such as slate or for smaller schools, maybe metal; the height of all buildings of frame construction shall be only one story high. All two-story buildings shall have fire-resistive corridors and fire-resistive stairways, and all buildings of three or more stories shall be of fire-resistive materials except doors, windows, floor covering over

concrete and roof construction above concrete. To be approved, a school shall be housed in a building which is structurally safe and also safe from an exit standpoint. Each school building shall be kept in a good state of repair. No school which shows evidence of unsatisfactory housekeeping practices shall be approved.

- D. Internal Structure: All primary corridors in buildings containing ten or more rooms shall be at least ten feet wide. No corridor, primary or secondary, shall be less than eight feet wide. All corridor ceilings shall be at least nine feet eight inches high. Lobbies should be in size in accordance to the size of the plant; the basement should be dry and of sufficient size to store fuel and central heating plant if located in basement.

III. Academic Classroom.

All classrooms for grades one through twelve shall have a minimum floor space of twenty square feet per pupil in existing buildings; twenty-two square feet in new construction (thirty-three square feet recommended).

The shape of the room should be so as to allow for flexible furniture arrangements and furniture and every effort should be exerted to secure the maximum amount of light without glare. Bilateral lighting is desirable, provided the source of natural light is sufficiently shielded to exclude excessive brightness. The ratio of window area to floor area shall be at least 1:4. The head of the window should be at

ceiling level and in no case lower than eight inches below ceiling. Window shades should be provided in case of direct or glaring light. Floor and furniture in all classrooms should be furnished naturally without any stain and should be kept light so as to contribute to the seeing comfort of the room. If asphalt tile is used, it should not be darker than "C" grade.

The color scheme of all classrooms shall be painted according to a scheme which will be pleasing to the eye and which shall contribute to a comfortable seeing environment. Ceilings and interior walls above wainscot shall be painted with flat wall type paint. Wainscot and trim shall be painted with semi-gloss paint. Ceilings and drops should be off white, soft white, and walls should be a light pastel shade of blue, green, or tan according to exposure. Wainscot and trim should be natural or a slightly darker shade of the wall color. The drop on the window side should extend down to the window sill.

The chalk boards should be a minimum of twenty linear feet of light green chalk board per classroom. Many schools will require more.

At least twenty square feet of bulletin board shall be provided in each room. More is desirable.

Locker space for teaching material shall be provided in each classroom. Lockers, wardrobes, or cloak rooms shall be provided for pupils' wraps, preferably in the classrooms for grades one through six and in the corridor for grades seven through twelve.

IV. General Service Rooms.

A. Auditorium: The size of the school auditorium will vary

according to the size of the school, school policies, and load programs, extent of community use, and availability of other facilities in the community. Seating capacity should be calculated on the basis of seven square feet per person. Stage and dressing rooms should be planned in keeping with the total needs.

- B. Physical Education Rooms: Health education facilities, both indoors and outdoors, should be provided in all schools. These facilities will vary from the regular classroom and outdoor facilities of the one-teacher school to the large physical education buildings of the larger schools. The play room is more acceptable than the traditional large gymnasium which is used primarily for varsity basketball. The number and size of the playroom will vary with the size of school unit. Locker and shower space is essential to a functioning program. In order to implement the above, the following suggestions are made. From the standpoint of physical education only:
- (1) Thirty-five square feet per pupil of level floor space should be provided for each student in the maximum class to be accommodated. Eighteen hundred square feet shall be considered as the minimum.
 - (2) Dressing rooms, floor space: Fourteen square feet per student in peak load in any one class. This is exclusive of locker space.
 - (3) Shower rooms, floor space: Twelve square feet per shower

head. Number of showers: Girls, forty per cent of peak load in any one class; boys, thirty per cent of peak load in any one class.

- C. Library: In all schools embracing grades one through eight or any combination of these grades and having fifteen teachers or more, a library of at least classroom size shall be provided. In all schools embracing grades one through twelve and in all schools embracing any combination of grades seven through twelve, a library shall be provided large enough to house ten per cent of the enrollment, plus the largest class in the school. This space shall be computed on the basis of twenty square feet per pupil to be accommodated. Extra space shall be provided for a work room supplied with running water. A conference room is desirable.
- D. Cafeteria: All schools should be provided with the necessary facilities for food services. Space should be made available so that the children can be served quickly and efficiently in not more than three shifts. It is desirable to serve all children in two shifts when possible. Size of space needed should be determined by allowing two square feet per child to be served at any one time in addition to kitchen and necessary storage space. Cafeterias should not be placed in basement rooms unless the floor on at least two sides is above the finished grade. Cross ventilation and/or mechanical ventilation are/is desired.

- E. Kindergarten: (No requirements).
- F. Administrative Offices: Each school plant of six or more teachers shall provide at least three hundred square feet of floor space area for office space. Proper facilities for filing records shall be provided. Larger schools should provide proportionally larger office areas and should have a fireproof vault for storage.
- G. Teachers' Rooms: (Included with administrative offices).
- H. Clinics: In schools having from eight to ten teachers, part of office space may be used for clinical services. In schools having more than ten teachers, separate space should be provided for clinical services.
- I. Janitors' Rooms: This is usually included in the basement.
- J. Industrial Arts: (Not required).
- K. Home Economics: Combination homemaking laboratories shall have a minimum floor space of forty-five square feet per pupil; and, in addition to this requirement, there shall be, in connection with the homemaking department, a living room-dining room, restrooms, and storage closets.

V. Service System.

- A. Heating and Ventilating: The heating and the ventilating of the school building are of the utmost importance. Special heating and ventilating engineers should provide these services in order that the occupants of the school building may be comfortable at all times and in order that the building

may be protected from the hazards of inadequate heating facilities.

- B. Artificial Lighting: Natural lighting should be supplemented by artificial lighting, shadow free and glare free, in such amount as to provide at least twenty foot candles on each desk top after allowance has been made for deterioration. Every effort should be exerted to secure the maximum amount of light without glare.
- C. Water Supply: A protected source of drinking water shall be provided which will meet sanitary requirements for purity as set up by the State Department of Public Health; and if running water is available in the building, one drinking fountain shall be provided for each thirty pupils enrolled. Lavatories shall be provided in all toilet rooms in the ratio of one fixture for each fifty pupils. Additional lavatories should be provided when at all possible. If running water is not available, standard sanitary water should be provided.
- D. Toilets: Toilet rooms for each sex shall be provided, and there shall be at least one water closet for each thirty girls and one for each forty boys. In addition, there shall be a urinal for each forty boys. If running water is not available, standard sanitary toilets should be provided which meet the standards set up by the State Department of Public Health.

- E. Fire-Protection System: All buildings, except one teacher buildings, shall have at least two exits remote from each other, and the total exit facilities of any school building shall be at least twenty-two inches in width for each one hundred people to be housed at any one time.
- F. Electrical System: (Not required in Tennessee).
- G. Cleaning System: No school which shows evidence of unsatisfactory housekeeping practices shall be approved.

Miscellaneous.

- A. The four-teacher building is the minimum size of building which can incorporate the desired features conveniently, efficiently, and economically.
- B. Before the construction of a new building is undertaken, the written approval of the Commissioner of Education or his designated representative, shall be secured before bids are submitted.

Appendix B

SCORE CARD USED TO EVALUATE ELEMENTARY AND HIGH SCHOOL BUILDINGS

by T. C. Holy and W. E. Arnold

School _____ City _____ State _____

Enrollment _____ Date _____ Scorer _____

Site: Length _____ Width _____ Total area _____ Play space per
pupil _____ (square feet)

Building: Date of erection _____ Additions (give each year and number
of rooms):

Divisions of Score Card	Standard	Scores	
		School	Percentage
Site	120		
Building	158		
Academic classrooms	167		
Special classrooms	171		
General service rooms	153		
Administration rooms	92		
Service systems	139		
Total	1,000		

Make a sketch in this space of the grounds and the building and give
their dimensions.

Score Card for Junior and Senior High-School Buildings

	E	D	C	B	A	Score
I. Site						120
A. Location						49
1. Accessibility (1)	0	7	14	20	27	
2. Environment (2)	0	6	11	16	22	
B. Physical Features						44
1. Size of Site (2)	0	5	10	15	20	
2. Form (3)	0	4	7	10	14	
3. Nature of Soil (3)	0	3	5	8	10	
C. Improvements						27
1. Arrangement of Space (3)	0	4	9	13	17	
2. Landscaping (3)	0	3	5	8	10	
II. Building						158
A. Placement						23
1. Orientation (5)	0	3	6	9	12	
2. Position on Site (5)	0	3	6	8	11	
B. Educational Plan						43
1. Flexibility (6)	0	4	8	12	16	
2. Expansibility (6)	0	3	7	10	13	
3. Economy of Plan (6)	0	4	7	10	14	
C. Gross Structure						45
1. Material (7)	0	2	4	6	8	
2. Foundations (7)	0	2	4	5	7	

A, Excellent; B, Good; C, Fair; D, Poor; E, Very poor

II. Building (continued)

C. Gross Structure (continued)

3. Walls (7) 0 1 3 4 6

4. Roof (7) 0 1 2 4 5

5. Height (8) 0 1 2 3 4

6. Exits (8) 0 2 4 5 7

7. Condition of Building
(9) 0 2 4 6 8

D. Internal Structure 47

1. Stairways (9) 0 4 7 10 14

2. Corridors (9) 0 4 7 10 14

3. Lobbies (11) 0 2 4 5 7

4. Basement (11) 0 3 6 9 12

III. Academic Classrooms 167

A. Construction 107

1. Size (12) 0 5 9 13 18

2. Shape (12) 0 3 6 9 12

3. Windows (13) 0 3 6 8 11

4. Shades (13) 0 1 2 3 4

5. Floors (13) 0 3 5 7 9

6. Walls and Ceilings (13) 0 3 5 7 9

7. Doors (13) 0 2 4 6 8

8. Color Scheme (14) . . . 0 2 4 6 8

9. Blackboards (14) . . . 0 3 6 8 11

10. Bulletin Boards (14) . 0 2 4 6 8

11. Closets and Built-in
Cases (15) 0 3 5 7 9

III. Academic Classrooms (continued)

B. Equipment. 60

1. Type (15) 0 9 18 27 36

2. Arrangement (16) 0 6 12 18 24

IV. Special Classrooms 171

A. Science Laboratories 34

Junior High Schools¹

1. General Science (17) 0 6 11 16 22

2. Biology (18) 0 3 6 9 12

Senior High Schools²

1. General Science (17) 0 2 4 5 7

2. Biology (18) 0 3 5 7 9

3. Chemistry (19) 0 3 5 7 9

4. Physics (20) 0 3 5 7 9

B. Home Economics 37

1. Foods Laboratory (20) 0 4 7 10 14

2. Home-Making Rooms (22) 0 3 5 8 10

3. Clothing Laboratory (22) 0 3 7 10 13

C. Industrial Arts 46

1. General Shop (24) 0 3 6 8 11

2. Print Shop (26) 0 1 2 3 4

3. Automobile-Repair Shop
(27) 0 1 3 4 5

4. Electric Shop (27) 0 1 3 4 6

5. Woodworking Shop (28) 0 3 5 7 9

1. When scoring junior-high-school buildings, use this section for science rooms.
2. When scoring senior-high-school science rooms, use this section.

IV. Special Classrooms (continued)

C. Industrial Arts (continued)

6. Machine Shop (28) 0 1 3 4 5

7. Sheet-Metal Shop (28) . . 0 1 3 4 6

D. Commercial Rooms 23

1. Bookkeeping Room (29) . . 0 3 6 8 11

2. Typewriting Room (29) . . 0 3 6 9 12

E. Drawing and Fine-Arts Rooms 31

1. Mechanical Drawing (29) . 0 2 4 6 8

2. Art (30) 0 3 6 8 11

3. Music (30) 0 3 6 9 12

V. General Service Rooms 153

A. Auditorium 34

1. Assembly Room (32) 0 5 11 16 21

2. Stage (34) 0 3 7 10 13

B. Physical-Education Rooms 39

1. Gymnasium (35) 0 4 7 10 14

2. Dressing and Shower
Rooms (37) 0 2 4 5 7

3. Corrective Room (38) . . . 0 1 2 3 4

4. Offices (38) 0 0 1 2 3

5. Examination Room (38) . . 0 0 1 2 3

6. Storage Room (38) 0 0 1 2 3

7. Laundry (38) 0 0 0 1 1

8. Swimming Pool (39) 0 1 2 3 4

C. Library 35

V. General Service Rooms (continued)

C. Library (continued)

1. Reading Room (40) 0 4 7 10 14

2. Equipment (41) 0 3 5 7 9

3. Workroom (42) 0 1 2 3 4

4. Library Classroom (42) 0 1 2 3 4

5. Conference Rooms (42) 0 1 2 3 4

D. Cafeteria 127

1. Lunchroom (42) 0 3 6 9 12

2. Kitchen (44) 0 3 5 7 9

3. Auxiliary Rooms (44) 0 1 3 4 6

E. Study Halls (45) 18

VI. Administrative Rooms 92

A. Administrative Offices 34

1. General Office (47) 0 3 5 7 9

2. Principal's Private
Office (47) 0 2 4 5 7

3. Reception Room (48) 0 1 2 3 4

4. Supply Room (48) 0 1 2 3 4

5. Bookroom (48) 0 1 2 3 4

6. Vault (48) 0 0 1 2 3

7. Other Offices (48) 0 0 1 2 3

B. Teachers' Rooms 15

1. Workrooms (48) 0 2 4 5 7

2. Rest Rooms (49) 0 2 4 6 8

C. Community Rooms (49) 8

VI. Administrative Rooms (continued)

D. Student-Activity Rooms (49) . . . 0 3 5 8 10 10

E. Clinics (49) 0 3 5 8 10 10

F. Pupils' Rest Rooms (50) 0 2 4 5 7 7

G. Janitors' Rooms (50) 0 2 4 6 8 8

VII. Service Systems. 139

A. Heating and Ventilating (51) . . 0 6 13 19 25 25

B. Artificial Lighting (52) 0 4 9 13 17 17

C. Water Supply 24

1. Purity of Water (53) 0 2 4 6 8

2. Plumbing (53) 0 1 3 4 5

3. Drinking Fountains (53) . . . 0 1 2 3 4

4. Lavatories (53) 0 1 2 3 4

5. Showers (37) 0 0 1 2 3

D. Toilets 19

1. Locations (54) 0 3 5 8 10

2. Rooms (54) 0 3 5 7 9

E. Fire-Protection Systems 23

1. Fire-Resistive Construction
(55) . . 0 2 4 6 8

2. Fire-Protection Equipment (56) 0 1 2 3 4

3. Elimination of Fire Hazards (5)
(56) . . 0 1 3 4 6

4. Exits and Fire Escapes (56) . 0 1 3 4 5

F. Electric Systems 16

1. Telephones (56) 0 1 3 4 5

2. Radio (56) 0 0 1 1 3

VII. Service Systems (continued)

F. Electric Systems (continued)

3. Clock and Program System (57).	0	1	3	4	5
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4. Motion-Picture Equipment (57).	0	0	1	1	3
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G. Lockers (57).	0	3	5	8	10	10
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H. Cleaning Systems (58)	0	1	3	4	5	5
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Sums of Scores Allotted.						
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Added for Items Not Present and Not Needed						
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Total						
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Score Card for Elementary-School Buildings

	E	D	C	B	A	Score
I. Site						136
A. Location						54
1. Accessibility (1)	0	7	14	20	27	
2. Environment (2)	0	7	14	20	27	
B. Physical Features						44
1. Size of Site (2)	0	5	10	15	20	
2. Form (3)	0	4	7	10	14	
3. Nature of Soil (3)	0	3	5	8	10	
C. Improvements						38
1. Arrangement of Space(3)	0	6	13	19	25	
2. Landscaping (3)	0	3	7	10	13	
II. Building						178
A. Placement						24
1. Orientation (5)	0	3	6	9	12	
2. Position on Site (5)	0	3	6	9	12	
B. Educational Plan						43
1. Flexibility (6)	0	4	8	12	16	
2. Expansibility (6)	0	3	7	10	13	
3. Economy of Plan (6)	0	4	7	10	14	
C. Gross Structure						56

A, Excellent; B, Good; C, Fair; D, Poor; E, Very poor

C. Gross Structure (continued)

1. Material (7)	0	3	5	8	10
2. Foundations (7)	0	2	4	6	8
3. Walls (7)	0	2	4	5	7
4. Roof (7)	0	1	2	4	5
5. Height (8)	0	1	2	3	4
6. Exits (8)	0	3	5	8	10
7. Condition of Building (9)	0	3	6	9	12

D. Internal Structure 55

1. Stairways (9)	0	4	9	13	17
2. Corridors (9)	0	4	8	12	16
3. Lobbies (11)	0	2	4	6	8
4. Basement (11)	0	4	7	10	14

III. Academic Classrooms 297

A. Construction 197

1. Size (12)	0	8	15	23	30
2. Shape (12)	0	6	11	17	22
3. Windows (13)	0	6	13	19	25
4. Shades (13)	0	3	5	7	9
5. Floors (13)	0	4	8	12	15
6. Walls and Ceilings (13)	0	4	8	12	15
7. Doors (13)	0	2	4	6	8
8. Color Scheme (14)	0	2	4	6	8
9. Blackboards (14)	0	4	8	12	15
10. Bulletin Boards (14)	0	4	8	12	15

A. Construction (continued)

11. Closets and Built-in Cases (15) 0 4 8 12 15

12. Cloakrooms (15) 0 5 10 15 20

B. Equipment. 100

1. Type (15) 0 15 30 45 60

2. Arrangement (16) 0 10 20 30 40

IV. General Service Rooms 250

A. Auditorium 34

1. Assembly Room (32) 0 5 11 16 21

2. Stage (34) 0 3 7 10 13

B. Physical-Education Rooms 24

1. Gymnasium (35) 0 4 7 10 14

2. Dressing and Shower Rooms (37) 0 2 4 5 7

3. Storage Room (38) 0 0 1 2 3

C. Library 23

1. Reading Room (40) 0 3 5 8 10

2. Equipment (41) 0 3 5 7 9

3. Auxiliary Rooms (42) 0 1 2 3 4

D. Cafeteria. 20

1. Lunchroom (43) 0 3 5 8 10

2. Kitchen (44) 0 1 3 4 5

3. Auxiliary Rooms (44) 0 1 3 4 5

E. Kindergarten. 33

1. Room (45) 0 3 7 10 13

2. Auxiliary Rooms (45) 0 3 5 8 10

3. Equipment (45) 0 3 5 8 10

IV. General Service Rooms (continued)

F. Administrative Offices. 34

1. General Office (47). 0 3 5 7 9

2. Principal's Private Office (47) 0 2 4 5 7

3. Reception Room (48). 0 1 2 3 4

4. Supply Room (48) 0 1 3 3 4

5. Bookroom (48) 0 1 2 3 4

6. Vault (48). 0 0 1 2 3

7. Other Offices (48) 0 0 1 2 3

G. Teachers' Rooms 15

1. Workrooms (48) 0 2 4 5 7

2. Rest Rooms (49). 0 2 4 6 8

H. Clinics (49). 15

I. Janitors' Rooms (50). 8

J. Industrial Arts. 22

1. Room (23) 0 3 6 9 12

2. Equipment (24) 0 3 5 8 10

K. Home Economics 22

1. Rooms (23) 0 3 6 9 12

2. Equipment (23) 0 3 5 8 10

V. Service Systems. 139

A. Heating and Ventilating (51). . . 0 6 13 19 25

B. Artificial Lighting (52). 0 4 9 13 17

C. Water Supply. 24

1. Purity of Water (53) 0 2 4 6 8

2. Plumbing (53). 0 1 3 4 5

V. Service Systems (continued)

C. Water Supply (continued)

3. Drinking Fountains (53) 0 1 2 3 4

4. Lavatories (53) 0 2 4 6 7

D. Toilets. 19

1. Locations (54) 0 3 5 8 10

2. Rooms (54) 0 3 5 7 9

E. Fire-Protection System 23

1. Fire-Resistive Construction (55) 0 2 4 6 8

2. Fire-Protection Equipment (56) . 0 1 3 3 4

3. Elimination of Fire Hazards (56) 0 1 3 4 6

4. Exits and Escapes (56) 0 1 3 4 5

F. Electric Systems. 16

1. Telephones (56) 0 1 3 4 5

2. Radio (56) 0 0 1 2 3

3. Clock and Program System (57) . 0 1 3 4 5

4. Motion-Picture Equipment (57) . 0 0 1 2 3

G. Cleaning Systems (58) 0 4 8 12 15 15

Sums of Scores Allotted

Added for Items Not Present and Not Needed

Total