DOCUMENT RESUME

ED 319 578 RC 017 572

AUTHOR	Coe, Pam; And Others
TITLE	The Condition of Rural Education in Tennessee: A Profile.
INSTITUTION	Appalachia Educational Lab., Charleston, W. Va.
SPONS AGENCY	Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE	Sep 89
CONTRACT	400-86-0001
NOTE	13p.; For related documents, see RC 017 570-573.
AVAILABLE FROM	Appalachia Educational Laboratory, P.O. Box 1348, Charleston, WV 25325.
PUB TYPE	Reports - Research/Technical (143) -- Information Analyses (070)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Elementary Secondary Education; *Rural Areas; *Rural Education; *Rural Schools; *Rural Urban Differences; Rural Youth; School Districts; School Law; *State Aid; State Legislation; Student Characteristics
IDENTIFIERS	*Tennessee

ABSTRACT

With the exception of four major metropolitan areas--Chattanooga, Knoxville, Memphis, and Nashville--Tennessee is a predominantly rural state with 56% (or 79) of its 142 school districts classified as rural. A rural school district is defined as one in which 75% or more of the population lives outside Standard Metropolitan Areas or in which student density is equal or less than 10 pupils per square miles. Tennessee school legislation does not specify policies for rural education different from those for urban or suburban education. The state establishes a curriculum framework with courses outside the mandated curriculum being permissible if the individual school district wishes to be innovative. Lack of central office staff to work with the state department prevents most rural districts from using innovative methods. In general, most rural school students begin the day with a fairly long bus ride, may have parents who are unemployed or underemployed, are more likely to need special education services and less likely to be classified as gifted than urban students, and are likely to have parents who did not graduate from high school or only have a high school education. In comparison to their urban counterparts, rural school districts tend to have fewer schools and students, and to be less adequately funded. When school districts are ranked by quartiles based on student density, the least dense quartile is shown to have the lowest average personal income: approximately three-fifths of the average personal income of the most dense quartile of districts. In 1988, a group of 66 counties filed a lawsuit challenging the state's funding formula. The consequent court decision may radically change the foundation of educational aid in Tennessee. This document contains statistical data and 12 references. (ALL)

The Condition of Rural Education in Tennessee: A Profile

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September 1989

Produced by

Appalachia Educational Laboratory
P.O. Box 1348, Charleston, WV 25325

Sponsored by

Office of Educational Research and Improvement
U.S. Department of Education • Washington, DC

ACKNOWLEDGEMENTS

A project such as this cannot be undertaken without the assistance of many colleagues. The authors particularly wish to thank Dennis Hirsch, Marjorie Pike, and Steve Raney (of the Tennessee Department of Education) for their assistance. Thanks also to AEL's Pat Cahape, who did the layout.

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This publication is based on work sponsored wholly or in part by the Office of Educational Research and Improvement (OERI), U.S. Department of Education, under contract number 400-86-0001. Its contents do not necessarily reflect the views of OERI, the Department, or any other agency of the U.S. Government.

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INTRODUCTION

This profile of Tennessee rural schools addresses itself to the following questions:

- What proportion of school systems in the state is rural?
- In what ways do rural schools differ from urban and suburban schools?
- Does the state department of education treat rural schools differently from urban/suburban schools? What accommodation is made for the differences between urban and rural schools?
- How does student achievement in rural schools compare with that in urban/suburban schools? What factors appear to correlate with achievement in rural schools?

We address these questions in five major sections on state policies, the environment in which rural schools operate, characteristics of rural students, characteristics of rural schools, and service delivery systems for school improvement. Wherever appropriate, recent developments at the state level which clearly affect rural education are emphasized.

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What is the definition of rural education?

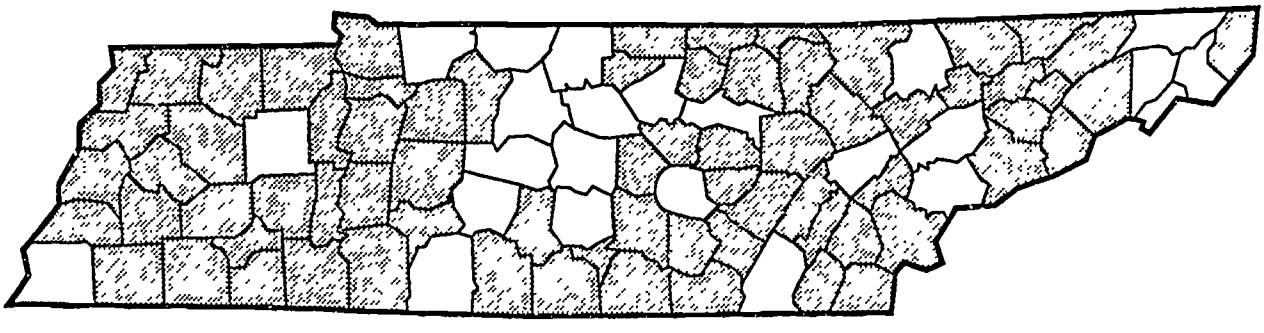
There are many different definitions of "rural." The U. S. census defines rural as all "nonmetropolitan" areas. The census defines a metropolitan area as "a single county area or a group of contiguous counties that includes at least one 'central city' of 50,000 inhabitants or in some instances contiguous twin cities that together meet this population minimum" (Department of Commerce, 1983, p. XVIII). Some define rurality by other measures of population density, some by other demographic

Rural Counties in Tennessee

KEY

All shaded counties are rural. These counties meet one or both of the following conditions:
- 75 percent or more of the population in the county is nonmetropolitan according to the 1980 census;
- there are 10 or fewer students per square mile in the county.

All unshaded counties are nonrural.



characteristics. Because the state of Tennessee does not define "rural education," we are using the following definition for consistency in reporting: **A rural school district is one in which 75 percent or more of the population is characterized as rural by the 1980 census or one in which student density is equal to or less than 10 pupils per square mile.** According to this definition, 79 of Tennessee's 142 school districts are rural.*

*The number of school districts in Tennessee is taken from the Annual Statistical Report of the Department of Education (1987). One-hundred forty-two districts are listed in that source.

I. STATE POLICIES FOR RURAL EDUCATION

With the exception of four major metropolitan areas—Chattanooga, Knoxville, Memphis, and Nashville—Tennessee is a predominantly rural state.

What legislative policies are there?

Tennessee school legislation does not specify policies for rural education different from those for urban or suburban education.

What administrative policies are there?

The state department of education does not assign any of its staff to rural education per se. One of the state supported schools, York Institute in Jamestown, is designated by law as the state's rural education center. Staff of York Institute provide technical assistance to rural school districts throughout the state. The school also serves as a laboratory for innovative programs, such as distance education, to improve rural education.

II. ENVIRONMENT IN WHICH RURAL SCHOOLS OPERATE

As the map on page 4 shows graphically, 79 (56 percent) of the 142 school districts in Tennessee are rural, by AEL's definition. The environment for education in the state is different for the large percentage of pupils who attend rural schools than it is for the large percentage who attend urban schools.

How is the Tennessee state educational system organized?

The educational system is governed by a state board of education. School attendance is mandatory between the ages of seven and sixteen, inclusive. Children who are five years of age by September 30 are admitted to kindergarten and those who are six years old by September 30 to first grade. Kindergarten attendance is not mandatory, but each school district is required to have a comprehensive developmental screening program to determine appropriate grade placement (kindergarten, pre-first grade/transition, or first grade). The school year for public school pupils must be at least 180 days of instruction. Students must be in school at least six and one-half hours per day. Public schools provide kindergarten through grade twelve, with kindergartens required to provide at least four hours per day five days per week.

All counties in Tennessee have school districts, and in addition there may be subcounty units (city or special school districts). State rules and regulations specify a minimum student population for each individual school, although they acknowledge that the minimum may not always be achievable in rural districts:

> The attendance center [i.e., school] shall be of such size that it will contain a concentration of population sufficient to guarantee a membership of pupils requiring nine or more regular classroom teachers in grades kindergarten through eight. For any combination of grades less than K through eight, the attendance center shall be of such size sufficient to guarantee a membership of pupils for at least

> one teacher for each grade based on the maximum number of pupils allowed for each grade. With the approval of the State Commissioner of Education, a smaller attendance center may be established where natural barriers, including lack of highways, make transportation for students in schools as defined above impractical (*Rules*, Book Two, p. 1).

Replacement or major renovation of schools smaller than this minimum requires approval by the Commissioner of Education prior to preparation of plans and specifications.

State regulations specify, for each grade level, the number of hours to be devoted to English language arts; foreign language (if offered); science; social studies; health education, physical education, and safety education; the fine arts; and general education exploratory courses. They specify that, "the curriculum for exceptional and handicapped children shall be an integral part of the general curriculum of the school" (*Rules*, Book One, p. 27).

The rules also require the state to establish a "curriculum framework" for every subject area in kindergarten through grade twelve, specifying goals, objectives, and minimum content to be covered. School districts may use the state curriculum guidelines or may use locally developed guidelines if they have been approved by the state board of education on the recommendation of the Commissioner of Education. In addition, the state department has developed curricular materials in the basic skills:

> Beginning with school year 1985-86 grades K-8 in each local school system shall use both Basic Skills First reading and mathematics or comparable curricular materials which have been approved by the State Board of Education upon the recommendation of the Commissioner of Education (*Rules*, Book One, p. 20).

Courses outside the mandated curriculum are permissible if the individual school district wishes to experiment to improve its offerings:

> Local school systems may offer special courses in grades 9-12 on an experimental basis. The local school board shall submit a curriculum framework and request preliminary authorization from the State Board of Education by April 1 of the year preceding the first year of implementation. Upon recommendation of the Commissioner, the State Board of Education shall approve or disapprove the request. The Commissioner may extend approval for the second and third years of the development of the special course. After three years, the State Board of Education, upon request [of] the local school system and the recommendation of the Commissioner, may approve the course as a permanent addition to the school program....
>
> The Commissioner of Education, in cooperation with a local school system, shall have the authority to initiate experimental projects to determine the effectiveness of innovations in content or in the administration of instructional programs, and to report the findings of these experimental projects to the State Board of Education on an annual basis (*Rules*, Book One, p. 21).

While the clear intent of these provisions is to encourage innovation, rural school districts are handicapped in taking advantage of them because they generally lack the number of central office staff required to meet the requirements for working with state department staff.

Requirements for inservice programs are strong, both at the school district level and the level of the individual school. "Each school shall develop and carry out a program of inservice education designed to improve the school curriculum and to promote the continuous professional growth of all personnel. This program shall be in accord with the system-wide plan of which it is a part" (*Rules*, Book One, p. 21). Strong inservice programs were called for by the Comprehensive Education Reform Act of 1984, which established a career ladder system for both teachers and administrators and laid the groundwork for new methods of helping beginning teachers learn their craft.

Details of these programs are still being worked out. For instance, the original plan for the teacher's career ladder was that, in time, all new teachers would come under its provisions automatically. The legislation was changed after considerable teacher protest, and now all teachers have the option of participating in the career ladder program or not. One way in which rural school di. tricts have already benefited from the career ladder program is that many have been able to institute summer school programs for the first time. Since master teachers on the career ladder program are employed year-round, with state supplementation of their salaries, the Career II and III teachers in the district are now available to teach summer school.

In addition to specifying in detail what courses educators must have to qualify for various certificates, Tennessee is an Option I National Council for Accreditation of Teacher Education (NCATE) affiliated state. Tennessee is applying NCATE standards and criteria to all unit reviews. Tennessee has its own program licensing standards and guidelines for specific program review. Tennessee also accepts NCATE approval of institutions outside the state, as well as approval of an institution by the state in which it is located (*Rules*, Book Three, p. 3).

The average teacher salary in Tennessee is $25,619, which is below the U. S. average of $29,629. The state ranks 35th in average teacher salaries (*Charleston Gazette*, 7/22/89, p. 54).

State law sets minimum requirements for home schooling. State rules and regulations set standards for church schools and recognized private schools (*Rules*, Book One, p. 118).

III. CHARACTERISTICS OF RURAL STUDENTS

In general, most rural public school students—especially those in the most isolated areas—begin the day with a fairly long bus ride, may have parents who are unemployed or underemployed, are more likely to need special education services and less likely to be classified as "gifted" than urban students, and are likely to have parents who did not graduate from high school or have only a high school education. Rural students who complete their education are under considerable pressure to leave home for employment, especially if they have postsecondary education, because well paying jobs requiring specialized skills are almost nonexistent in most rural areas. Thus, in Tennessee, a rural student is apt to belong to a family whose income is below the state average. In part because of the family's low socioeconomic status, the isolated rural student is apt to do more poorly in school than urban students and to value education less.

How do rural students score on achievement tests?

In general, as Table 1 shows, the scores of rural pupils in Tennessee on the state mandated achievement test (Stanford Test of Academic Skills) are not significantly different from those of urban and suburban students. The correlation matrix in Table 1 indicates the relationship between achievement in reading and mathematics and attending a rural school district, density of student population, percentage of adults with college education, size of district, and income per student.

Most of the correlation coefficients are not statistically significant, including those

TABLE 1
Correlations of Achievement and Demographic Variables

Correlations:	Reading	Mathematics
Total enrollment	.06	.05
Student density	-.11	-.03
Percent adults with college	.33**	.33**
Percent nonmetro population	.03	-.05
Income per pupil	.21*	.25*

1-tailed Significance: * = .01 ** = .001

(Note: Reading is based on ninth grade Stanford "TASK 2" reading achievement in percentile ranks; Mathematics is based on ninth grade Stanford "TASK 2" mathematics achievement in percentile ranks.)

between achievement and student density and between achievement and non-metropolitan (or rural) school districts. Whether the school district has a small or large enrollment also seems to make no difference. There is a positive correlation (at the .01 level of significance) between personal income per student and reading and mathematics achievement. Even more significant (at the .001 level) is the correlation between student achievement and the percentage of persons in the district 25 and over who have had at least two years of college education. The apparent lack of correlation between rurality and relatively low test scores may reflect Tennessee's having large metropolitan areas (Chattanooga, Knoxville, Memphis, and Nashville), with middle class suburban and exurban populations, which may be rural by the AEL definition, and large underprivileged urban populations.

What is the attendance rate of rural students?

The attendance rate of rural students is about the same as that of urban students. (See Figure 1.)

What is the high school completion rate?

Rural students in Tennessee complete high school at about the same rate as nonrural students. However, it should be noted that high school completion rate is computed differently in different states and seldom is a good indicator of the drop-out rate. In Tennessee it is based on the percentage of students entering the twelfth grade who graduate at the end of the year. Many students drop out of school before reaching their senior year. (See Figure 2.)

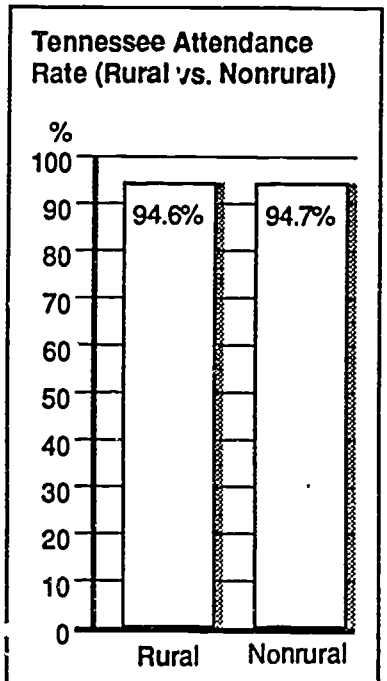
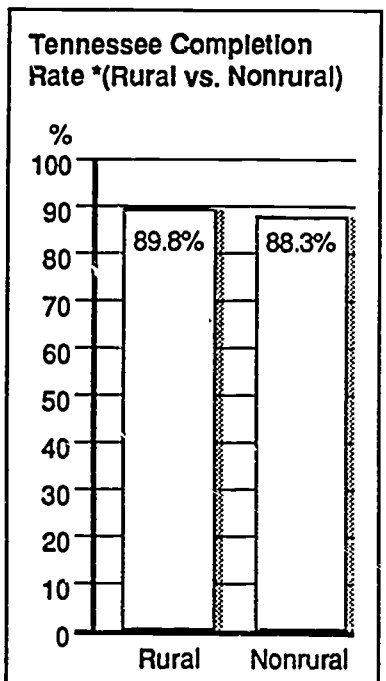


FIGURE 1



*as percentage of 12th grade membership for 121 districts with high school graduates (computed from raw data from Tennessee State Department of Education)

FIGURE 2

IV. CHARACTERISTICS OF RURAL SCHOOLS

Rural school districts in Tennessee differ from urban school districts both in average numbers of schools and students and in the adequacy of their funding.

How do rural school districts differ from urban school districts?

As might be expected, rural school districts have more rural schools than urban school districts. However, there are small, isolated, rural schools in some large, predominantly urban county districts.

Rural schools generally have smaller enrollments, and there are usually fewer schools in rural districts than in urban districts. In Tennessee the average pupil enrollment in urban districts is 8,763; in rural districts it is 3,496. The average number of schools in urban districts is 16; in rural districts there is an average of 8 schools per district.

How well are rural school districts funded?

A group of 66 small rural school districts has filed a lawsuit challenging the state's minimum foundation funding formula: *Tennessee Small Counties System vs Governor McWherter et al.* (1988). The plaintiffs allege that the state has denied equal protection to smaller and poorer

school districts by failing to provide adequate funding under the state constitution. The small districts specifically contend that, under the state formula, they lack the ability to provide adequate facilities.

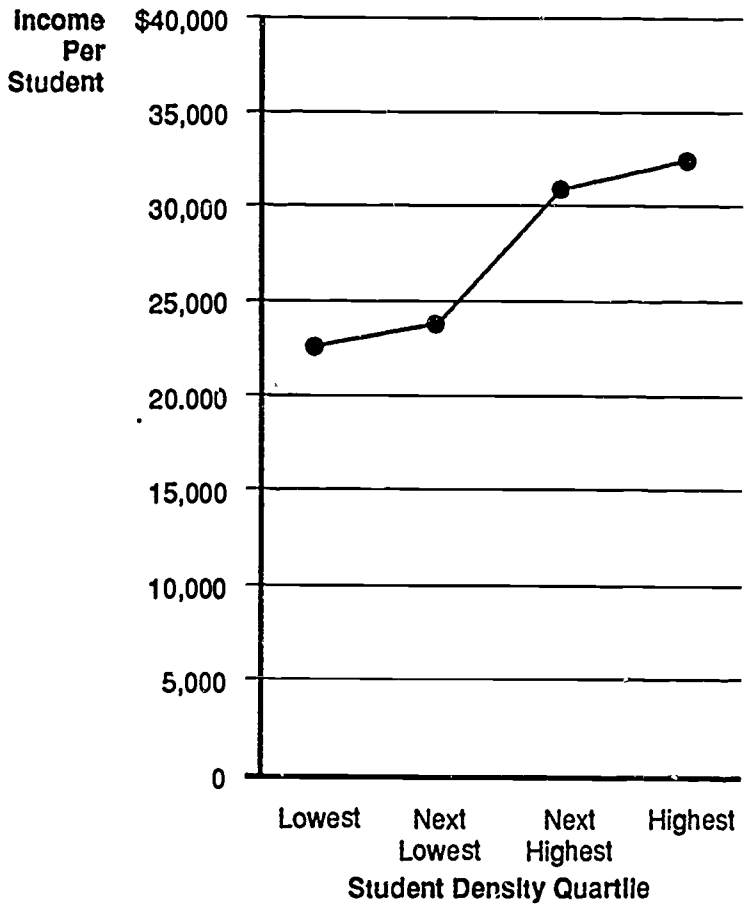
> The plaintiffs in Tennessee offer evidence to support the contention of inadequate revenue capacity in rural and small districts. Plaintiffs charge that, although equalization is present in the Tennessee Foundation Program, it is not sufficient to offset differences in sales tax revenue resulting in differences in available resources that vary by as much as 1500 percent. Plaintiffs charge that the constitutional requirement guaranteeing education as a fundamental right cannot be met in the context of Tennessee's schools ranking last in educational expenditures nationally, where state foundation aid underfunds an 'adequate' expenditure level by 43 percent, and in which school districts lose accreditation if they fail to meet minimum standards imposed by the state (Thompson and Stewart, 1989, p. 30).

This court case has not yet been decided. State educational aid formulas may change radically if the ruling favors the plaintiffs.

There are no school taxing districts in Tennessee. Thus, local school boards have little or no control over the amount of money they will have to budget. Schools in Tennessee derive most of their local revenues from property taxes, and tax rates are controlled by local government. The greater part of school funds comes from the retail sales tax, both state and local. When local government levies the maximum permitted, Tennesseans now pay 7.75 percent sales tax on most purchases. Small, rural county districts are generally those with the lowest per capita income (see Figure 3). It is very difficult in these districts to persuade the county commissioners or the electorate to approve increased sales taxes or greater bonded indebtedness.

Since city or special districts have been created from within the original county school districts, taxpayers who contribute to the revenues of the city and special districts are also taxed to support the county district. There are, therefore, unique revenue sharing arrangements to avoid double taxation. When a county school district sells bonds for capital outlay, it is required by the Tennessee Code to share the proceeds with the city or special school districts within the county.

To illustrate the degree to which rurality or sparsity of population is associated with low average incomes, Figure 3 charts the income per student according to student density quartiles.



KEY:

Income per Student = total amount of personal income in the district divided by the number of students in the district
Lowest Student Density Quartile = 35 school districts with fewer than 7.35 students per square mile
Next Lowest Student Density Quartile = 35 school districts with at least 7.35 but less than 13.5 students per square mile
Next Highest Student Density Quartile = 35 school districts with at least 13.5 but less than 65 students per square mile
Highest Student Density Quartile= 35 school districts with at least 65 or more students per square mile

FIGURE 3

Table 2 shows the high negative correlation between nonurban school districts and income per student in Tennessee, as well as the high positive correlation between income and population density. Both correlations are significant at the .001 level of significance. This indicates that the fewer students per square mile, the less income per student. And average personal income per student is lower in rural than in urban school districts.

TABLE 2
Correlations Among Demographic Variables

Correlations:	Nonmetro Population	Income Per Pupil	Poverty Rate	Student Density
% Nonmetro Population	—			
Income Per Pupil	-.68*	—		
Poverty Rate	.07	-.49*	—	
Student Density	-.67*	.40*	.03	—

1-tailed Significance: * = .001

V. SERVICE DELIVERY SYSTEMS FOR SCHOOL IMPROVEMENT

Tennessee's school districts are able to draw upon a number of different sources for assistance in school improvement. As in most states, the state department of education provides most assistance, with the designated rural education center—York Institute—making available technical assistance designed specifically for rural school districts. Assistance is also available from the state's colleges and universities and from agencies such as AEL.

What is the role of the State Department of Education?

The State Department of Education issues regulations setting standards of quality. These standards of quality go into considerable detail to ensure a high general quality of education in the public schools of the state. They also ensure that the teacher and administrator career ladder programs and beginning teacher programs are carried out consistently across the state.

As noted above, state regulations encourage innovation, but such innovation is very difficult for small school districts with few central office staff. Technical assistance of particular relevance to rural school districts is provided by York Institute, in middle Tennessee. This assistance is somewhat limited, as the chief mission of York Institute is to provide a comprehensive high school program to students in its region.

In recognition that there are "three states of Tennessee" (a widely circulated saying in the state), the State Department of Education works through regional offices: the main office in the capital, Nashville, and offices in eastern and western Tennessee. State department staff, therefore, are located relatively close to the school districts to which they provide technical assistance. The state sponsors inservice training programs on a regional as well as on a statewide basis, although the summer programs of several weeks in duration are generally state-wide.

Summary

This profile of rural education in Tennessee reviews state policies for rural education at a specific point in time, covering the environment in which rural schools operate, characteristics of rural students and of rural schools, and service delivery systems for school improvement. It provides a snapshot of the condition of rural education in Tennessee in the time frame of 1986-1989. The intention is to compile sufficient meaningful, current information to be of use to state decisionmakers, including legislators, administrators, school staff people, and the general citizenry.

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Note: In addition to information from the sources cited above, this profile contains information based on personal communications, primarily with those cited in the Acknowledgements section on page 2.