Of Virginia's 139 school districts (which are called "divisions"), 75 (or 54%) are 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 less than or equal to 10 pupils per square mile. While there are large metropolitan areas situated near Norfolk, Roanoke, Richmond, and Washington, D.C., the state is predominantly rural. Virginia school legislation does not specify policies for rural education different from those for urban and suburban education. A revised funding formula, however, was implemented in 1987, taking into account the higher than normal per-pupil instructional and transportation costs associated with population sparsity. The state-supported system of distance learning is specifically designed to assist rural schools provide educational programs that they otherwise could not afford. The "Standards of Quality" are used to determine the minimum program of high quality education that must be offered by all school divisions. 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, score lower on achievement tests are 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 school districts differ from their urban counterparts by containing smaller numbers of schools and students and having less adequate of funding. 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. The Commonwealth of Virginia is making a concerted effort to equalize educational opportunities throughout the state, taking into account the difficulties and additional costs of providing quality education in isolated, rural areas. This document contains statistical data and 16 references. (ALL)
THE CONDITION OF RURAL EDUCATION IN VIRGINIA: A PROFILE

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INTRODUCTION

This profile of Virginia 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, environments 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 that clearly affect rural education are emphasized. Various quantitative data were supplied by the Virginia Department of Education and pertain to the 1986-1987 school year. Other data sources appear in the reference list.

The chief state school officer is:

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Superintendent of Public Instruction
Department of Education
P. O. Box 6Q
Richmond, Virginia 23216
804/225-2023

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 characteristics. Because the state of Virginia 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. This definition combines census criteria with other population density criteria. According to this definition, 75 of Virginia’s 139 school divisions are rural.*

*Data on school districts (called "divisions" in Virginia) are reported in Facing Up-22: Statistical Data on Virginia’s Public Schools (1986-1987 School Year). That source lists 139 school divisions.

I. STATE POLICIES FOR RURAL EDUCATION

There are large metropolitan areas in Virginia (Washington, D. C., suburbs, the Richmond area, the Norfolk area, and the Roanoke area). Nevertheless, the state of Virginia is predominately rural. Only recently has the State Department of Education, following the leadership of Governor Baliles, begun to study the differences between the situations and needs of rural and urban school divisions.

What legislative policies are there?

Virginia school legislation does not specify policies for rural education different from those for urban or suburban education. A revised funding formula, however, was implemented following release of a legislative report by the Joint Legislative Audit and Review Commission (JLARC) in November 1987. The report, Funding the Standards of Quality, Part II: SOQ Costs and Distribution, took into account the higher than normal per-pupil instructional and transportation costs associated with population sparsity. This report and the revised funding formula are discussed in greater detail in a subsequent section.

What administrative policies are there?

The State Department of Education does not assign any of its staff to rural education per se. However, the department is currently reviewing rural education research and those factors affecting the educational process in rural schools to determine future directions in Virginia. The state supported system of distance learning is specifically designed to assist rural schools in providing educational programs they otherwise could not afford. And the new state funding formula, described in more detail below, takes rural costs and needs into consideration.

II. ENVIRONMENT IN WHICH RURAL SCHOOLS OPERATE

What percentage of Virginia school districts are rural?

As the map on page 4 shows graphically, 75 or 54 percent of the 139 school divisions in Virginia are rural, by AEL’s definition.

How is the Virginia state educational system organized?

Article VIII, Section I, of the Virginia Constitution states that, “The General Assembly shall provide for a system of free public elementary and secondary schools for all children of school age throughout the Commonwealth, and shall seek to ensure that an education program of high quality is established and continually maintained.” The constitution also establishes the state board of education, comprised of nine members appointed by the governor, and mandates a Superintendent of Public Instruction, appointed by the governor, and Standards of Quality, to be prescribed by the state board of education, subject only to revision by the General Assembly. Because of its fiscal responsibility for meeting the standards (which have not yet been fully funded), the General Assembly must have ultimate control of them. The standards are used to determine the minimum program of high quality education that must be offered by all school divisions.

The Strategic Plan of The Virginia Board of Education, 1988-1994 includes a statement of educational goals and lists of objectives in seven areas of endeavor: disparity (reducing discrepancies in educational performance), illiteracy, teacher education, educa-
CONDITION OF RURAL EDUCATION IN VIRGINIA: A PROFILE

The standards for accrediting public schools in Virginia (effective for the 1988-89 school year) give a comprehensive view of the educational standards Virginia schools must maintain. Each standard is accompanied by a list of criteria to determine whether or not it has been met. The standards range widely over the entire educational enterprise:

STANDARD A
Each school shall have in effect a written plan that promotes interaction with the community and that fosters mutual understanding in providing a quality educational program.

STANDARD B
Each school shall have current written statements of its philosophy and objectives that shall serve as the basis for all school policies and practices.

STANDARD C
Each school shall provide a planned and balanced program of instruction that is in keeping with the abilities, interests, and educational needs of students and that promotes individual student achievement.

STANDARD D
The principal shall be responsible for instructional leadership and effective school management that promotes achievement of individual students.

STANDARD E
The staff shall provide instruction that is educationally sound in an atmosphere conducive to learning and in which students are expected to achieve.

STANDARD F
Each school shall provide learning objectives to be achieved by students at successive levels of development and shall continually assess the progress of each student in relation to these objectives and the goals of education in Virginia.

STANDARD G
Each school shall have the required staff with proper certification and endorsement.

STANDARD H
The school building shall accommodate an educational program that will meet the needs of the students and ensure the health and safety of students and staff (Standards, 1988).

Each elementary school is required to provide instruction in art, health, language arts, mathematics, music, physical education, science, and social studies (including Virginia and U.S. geography). “Students not reading at or above grade level after grade 3, as determined by local or state assessment, shall receive additional instruction in reading” (Standards, 1988, p. 6). Middle schools must provide instruction in art, health, language arts, mathematics, vocational education, foreign language, music, physical education, science (with laboratory experience), and social studies (including world geography). Secondary schools must offer students options to pursue studies in several academic and vocational areas, including:

a. vocational education choices that prepare the student with a marketable skill in one of three or more occupational areas;

b. academic choices that prepare the student for technical or pre-professional programs of higher education;

c. liberal arts choices that prepare the student for college-level studies in the arts and sciences;

d. access to at least two Advanced Placement courses or two college-level courses for credit; and

e. preparation for Scholastic Aptitude Tests, including as a minimum, a review of appropriate English and mathematics principles and instructions in taking the tests, shall be available for students (Standards, 1988, p. 7).

Students are required to pass literacy tests in reading, writing, and mathematics in order to receive a Literacy Passport and be promoted to the ninth grade, except for handicapped students who are progressing in accordance with their individualized education programs. Students who are not
promoted to ninth grade are enrolled in alternative programs leading to passing the literacy tests, to high school graduation, to a General Educational Development Certificate, to a Certificate of Program Completion, or to job-entry skills. To graduate from high school a student must earn 21 units (four in English, two in mathematics, two in laboratory science, one in either math or science, three in social studies, two in health and physical education, one in fine arts or practical arts, and six in electives). All secondary schools are required to offer students the opportunity of electing to take an Advanced Studies Program, which requires a minimum of 23 credits. It allows for only four electives and requires three units of foreign language, as well as more mathematics and laboratory science than the general diploma.

State law mandates that the Statewide Electronic Classroom Program be made available to every public high school by July 1, 1990. This program entails distance learning, in which courses of instruction are sent via satellite from a central location to students in other schools. For instance, the Electronic Classroom can be used to provide classroom instruction in subject areas not available in all schools, and it can be used for inservice training for instructional, administrative, and support school personnel. Two Electronic Classroom programs are already operating: one centered at the Varina High School in Henrico County and one centered at the Wise County's Vocational Technical School in Wise County. Functioning as a distance learning network, the Electronic Classroom system is intended to provide high quality and equitable education for students across the Commonwealth.

School attendance is mandatory for all students who have reached the age of five on or before September 30 of any school year and who have not had their seventeenth birthdays. Effective July 1, 1990, students must have reached their eighteenth birthdays before leaving school. Public schools provide instruction in kindergarten through grade twelve. The school year for public school pupils is required to be at least 180 days. The school day for students in grades one through twelve must average at least five and one-half hours (not counting time for meals). Kindergarten students must have a school day of at least three hours, exclusive of meal intermissions. However, "a longer student day is encouraged to accommodate the instructional program and student needs" (Bylaws, 1980, p. 79).

School divisions in Virginia are either county divisions or subcounty units (city or town school divisions). Each school division has a division superintendent of schools selected by the school board from a list of eligible educators certified by the state board of education. School board members must have the following qualifications: 1) they must be qualified voters; 2) they must be bona fide residents of the districts from which they are selected; and 3) they must agree to serve a four-year term.

Approved teacher education programs must be in accordance with the established standards of the state board of education, the Council of Higher Education, and the Southern Association of Colleges and Schools. Requirements for approved teacher education programs are delineated in great detail. Teachers are required to pass competency examinations (the National Teachers Examination) in addition to completing approved teacher education programs. Teachers may transfer from another state and receive Virginia certification under interstate reciprocity agreements, provided they have taken a competency examination prescribed by the state board of education. Virginia participates in two certification reciprocity systems: the Interstate Certification Compact (Interstate) agreement and the National Association of State Directors of Teacher Education and Certification agreement. There is a 17 member Teacher Education Advisory Committee appointed by the state board of education, which advises the board on policies related to teacher preparation, training, certification, recertification, and certification revocation (Certification Regulations For Teachers, 1986).

Teachers who enter the Virginia system without prior teaching experience participate in the Virginia Beginning Teacher Assistance Program (BTAP). They are issued two-year, non-renewable certificates, during which time they are given training in the required BTAP competencies (if desired), and they must demonstrate each of the competencies during classroom observa-
tions. The competencies (all defined in detail) are in such areas as academic learning time, accountability, clarity of structure, individual differences, evaluation, consistent rules, affective climate, learner self-concept, meaningfulness, planning, questioning skills, and so forth.

When beginning teachers have demonstrated all the required competencies, they receive five year, renewable certificates: the Collegiate Professional Certificate, the Pupil Personnel Services Certificate, or the Postgraduate Professional Certificate. Some teachers have complained that one generic set of competencies cannot measure the skills of teachers across all subject matters and all grade levels. Teachers of vocational and remedial classes have had particular difficulties structuring lessons so that they would be able to demonstrate all the mandated competencies.

The average teacher salary in Virginia is $29,056, only slightly below the U.S. average of $29,629. The state ranks 22nd in average teacher salaries (Charleston Gazette, 7/22/89, p. 54). Teacher salaries vary greatly, however, from school division to school division within Virginia, and isolated rural divisions generally pay less than the state average. Although the mandated Standards of Quality have never been fully funded, recent legislative action to increase teacher salaries across the board is designed to alleviate these discrepancies. Regional staff of the Virginia Education Association told AEL staff in 1988 of a very small, isolated, low-income rural school division whose school board chose to return funds to the state rather than increase teacher salaries as a condition for accepting the additional funds.

Total per pupil expenditure in the state for the 1987-88 school year averaged $4,069, of which $1,512 was contributed by the state. State contributions, based on a formula for a composite index of local ability to pay, varied from as little as $399.00 per student to as much as $2,066 per student. There were both small and large school divisions in the groups that spent the most per student and those which spent the least.

State law (22.1-254.1 Virginia Code) provides that parents may elect to provide home instruction in lieu of school attendance under one of four options specified. Options include the parent holding a baccalaureate degree in any subject from an accredited institution of higher education; or having the teacher qualifications prescribed by the state board of education; or enrolling the child in a correspondence course approved by the state board of education; or providing a program of study or curriculum that, in the judgment of the division superintendent, meets the Virginia standards of quality. Any parent providing home instruction must give the division superintendent by August 1 of the school year evidence that the child has scored above the fortieth percentile on a battery of achievement tests approved by the board of education or other evidence that the child is achieving at an adequate level.

Private education is also a large factor in Virginia: there are 248 nonpublic elementary and secondary schools in the state that belong to the Virginia Council for Private Education.

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 Virginia, 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, rural pupils in Virginia do not score as well on the state mandated achievement test (Science Research Associates) as 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. There are strong correlations (at the .001 level of significance) between total enrollment in a school division and achievement (with larger divisions showing higher average achievement) and between income per student and achievement (with students in higher income divisions showing higher average achievement). Similarly, there is a strong correlation between achievement and the number of persons in the division 25 and over who have had at least two years of college education. There is a strong negative correlation between achievement and non-metropolitan (or rural) school divisions: students in rural schools demonstrate lower average achievement. Oddly enough, the correlation between student density and achievement is not significant, even though, in general, the fewer students there are per square mile, the more isolated and rural the school division.

What is the high school completion rate of rural students?

Rural students in Virginia complete high school at about the same rate as nonrural students. In Virginia the high school completion rate is based on the number of high school graduates as a percent of ninth grade membership four years earlier. (See Figure 1.)

What percentage of rural students continue education beyond high school?

Fewer rural high school graduates have plans for postsecondary education (college or vocational) than do graduates of nonrural high schools in Virginia. (See Figure 2.)
IV. Characteristics of Rural Schools

Rural school divisions in Virginia differ from urban school districts both in average numbers of schools and students and in the adequacy of their funding, although Virginia has taken major strides in equalizing state funding of rural divisions with higher average costs.

How do rural school districts differ from urban school districts?

Rural schools generally have smaller enrollments, and there are usually fewer schools in rural school divisions than in urban divisions. In Virginia the average pupil enrollment in urban divisions is 12,236; in rural divisions it is 3,489. The average number of schools in urban school divisions is 17; in rural divisions there is an average of 8 schools per division. Only 16 percent of the urban school divisions in Virginia meet AEL's definition of small: a pupil enrollment of 3,000 or less for county divisions, or 1,500 or less for city or town divisions. By contrast, 60 percent of the rural divisions are small according to the AEL definition.

How well are rural school districts funded?

In January 1988, the Governor of Virginia voiced the need for electronic classrooms. He pointed out that electronic classrooms enable rural, sometimes isolated schools to receive special and advanced courses which, he stated, "they may not be able to afford themselves." He recognized the need for additional state funding in less affluent and rural school divisions for special education, vocational education, remedial education, and pupil transportation (Senate Document No. 1, Address of Gerald L. Baliles, Governor, Commonwealth of Virginia, To the General Assembly of Virginia, Wednesday, January 13, 1988).

On March 12, 1988, 37 percent of the total state record $22.6 billion biennium budget was allocated to public elementary and secondary education, to be distributed through a revised state education funding formula aimed at decreasing disparities among local school divisions. The substance of the revised formula was greatly influenced by the JLARC report, Funding the

![Average Income per Student Enrolled by Quartile of Student Density](image)

**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 = 33 school districts with fewer than 7.5 students per square mile

Next Lowest Student Density Quartile = 33 school districts with at least 7.5 but less than 13.8 students per square mile

Next Highest Student Density Quartile = 35 school districts with at least 13.8 but less than 199.5 students per square mile

Highest Student Density Quartile = 32 school districts with at least 199.5 or more students per square mile

**FIGURE 3**
Standards of Quality, Part II: SOQ costs and distribution, released November 24, 1987. This report addressed three areas of educational costs in funding the Standards of Quality:

1. pupil sparsity, causing higher than normal per-pupil instructional staffing needs or transportation costs;
2. high-cost regional wage markets, causing higher costs of competition, leading to higher salaries and fringe benefits; and
3. particular types of pupil mixes, leading to special needs and costs.

In these areas Virginia has departed from a single per-pupil amount approach to a basic operational cost per pupil amount established individually by school division. In doing so, the state has addressed some of the legitimate unique costs that may be beyond local control. For example, the 1987 JLARC report recognized that the bus fleet in a large, rural school division may have to travel an unusually large number of miles to pick up a few pupils, which can result in high per-pupil transportation costs.

Pupil transportation costs for 1987-88 were primarily reimbursed to localities based upon statewide rates for buses operated, miles driven, and the number of students transported to school. School divisions were reimbursed for special arrangements for transportation of the handicapped and for transportation of pupils by public transit.

In 1988-89, transportation costs were equated to prevailing costs per pupil transported, based upon the number of square miles in the locality and the number of pupils transported. In addition, the cost of replacing twelve-year-old buses was incorporated. The state, in a formula based on the locality's ability to share the costs, funded the prevailing per-pupil amount established for the transportation categories in a locality plus the amount scheduled for bus replacement. The major portion of these costs, as computed, is funded through the Basic Aid support component.

To illustrate the degree to which rurality or sparsity of population is associated with low average incomes, Figure 3 (page 10) charts the income per student according to student density quartiles.

Table 2 shows the high negative correlation between nonurban school districts and income per student in Virginia, as well as the high positive correlation between income and population density. Both correlations are 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>
<thead>
<tr>
<th>Correlations:</th>
<th>% Nonmetro Population</th>
<th>Income Per Pupil</th>
<th>Poverty Rate</th>
<th>Student Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Nonmetro Population</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Income Per Pupil</td>
<td>-.46**</td>
<td>-</td>
<td>-25*</td>
<td>-</td>
</tr>
<tr>
<td>Poverty Rate</td>
<td>.13</td>
<td>-.25*</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Student Density</td>
<td>-.73**</td>
<td>.51**</td>
<td>-.01</td>
<td>-</td>
</tr>
</tbody>
</table>

1-tailed Significance: * = .01  ** = .001
Virginia's school divisions are able to draw upon a number of different sources for assistance in school improvement. The state has a wealth of community colleges, colleges, and universities that work with local school divisions. As in most states, the State Department of Education provides more assistance than any other single source. More limited assistance is provided by such agencies as AEL.

What is the role of the State Department of Education?

The Standards of Quality for Virginia provide that:

The General Assembly and the Board of Education believe that effective schools must provide and maintain adequate support services to ensure quality education.

The Board of Education shall provide to the local school divisions technical assistance in the delivery of those support services which are necessary for the operation and maintenance of the public schools. Such technical services shall include, but not be limited to, in-service training of staff, development of appropriate facility plans, specifications for equipment, technology updates, and inspections of school buses.

Each local school board shall also provide a program of pupil personnel services for grades K through 12, which shall be designed to aid students in their education, social and career development (1988, p. 3).

As noted earlier, the areas on which the state board of education is currently focusing and in which the state department is providing concentrated technical assistance are: disparity (preschool programs, minority student performance, special education, family life education); literacy (literacy testing, remedial instruction, class size, historical documents); teacher education (ad hoc committee report; teacher salary, recruitment, and retention; forgivable loan program; recertification and continuing education); educational leadership (principal leadership and education, school board and superintendent training); technology (educational technology plan, computer education and communications, technology financing program); middle schools (middle school restructuring, dropouts); and accountability (student progress, educational performance) [Becoming a Leader in Education, 1988].

Areas in which substantial progress has been made are the Virginia State Assessment Program average standardized test scores, high school graduation rate (above the national average), education after high school, sources of revenue (described previously), and average teacher salaries (Becoming a Leader in Education, 1988).

More than most other states, the Commonwealth of Virginia is making a concerted effort to equalize educational opportunities throughout the state, taking into account the difficulties and additional costs of providing quality education in isolated, rural areas.

Summary

This profile of rural education in Virginia reviews state policies for rural education at a specific point in time, covering the environment in which rural students 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 Virginia 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.
REFERENCES


Education of the Commonwealth of Virginia. Richmond: Virginia Department of Education.


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