

THE DEVELOPMENT OF A PLAN
TO ADMINISTER THE NEW CURRICULUM PROGRAM OF VIRGINIA
SO THAT EACH PUPIL MAY BE BETTER PREPARED VOCATIONALLY FOR LIFE

BY

ELEY M. ESTES

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Dean of Agriculture

Chairman, Graduate Committee

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The Development of a Plan
To Administer the New Curriculum Program of Virginia
So That Each Pupil May Be Better Prepared Vocationally for Life

PART I
THE CURRICULAR SITUATION

CHAPTER I ANALYSIS OF PRESENT CONDITION

Primitive and ancient education consisted of training for protection in order that the youth might be fitted for life and service to his country. History reveals periods of reform when education deviated far from this principle. However, with each change, it became more useful in preparing the youth for life and service to the state. Although it has profited by the experience of the preceding generations, education has progressed slowly. Therefore, efforts to see that it meets the needs of man and is a profitable investment for the state and community must be continued. Education has grown in its content as well as its usefulness to mankind.

"Education being an investment of the state, it must provide a training suitable to the interest, the aptitudes, the capacities, the abilities, and the most probable needs of every normal individual, however low or however high his natural intelligence."(1)

In setting up and administering the new curriculum, an attempt should be made to recognize the individual differences in ability, and to take into account the needs of the community in which the child is likely to live. The use of tools is easy to learn, as the desire to use them is instinctive. Since man is a tool-using animal, the acquirement of a knowledge of tools and skill in their use should be included in every good system of education. The preparation of the boy or girl for the solution of problems of adult life is the purpose of all vocational education.

Problems in Curriculum

While education has witnessed many changes, the curriculum is still

academic and static. This is emphasized by the fact that 146,071 children between the ages of seven and nineteen are not enrolled in school, out of the 724,137 children of this age; by failure to graduate more than ten per cent of the students who enter the primary grades and by the large per cent of failures in the Virginia schools. From one-third to one-half of the students drop out between the seventh and twelfth grades.

Turman and Procter have shown that no pupil with an intelligence quotient of less than 90, as measured with their test, can expect to be graduated from the ordinary high school of today. The high school program is not just, in catering to the scholastic type only, especially when this type comprises only a small per cent of the total school population. The non-academically minded pupil is neglected, as well as the gifted child to whom we must look for leadership. He is often encouraged to be satisfied with mediocrity.(2) If the schools function properly, each individual must be recognized and developed according to his capacity and ability, whatever this may be.(3)

Frederick Winsor in *The Unintellectual Boy and the Problem of the Secondary School*, in a reprint from the April, 1931 *Atlantic Monthly*, states:

"It must not be assumed that the non-intellectual boy is necessarily unintelligent, far from it. He is merely a person whose intelligence runs along practical instead of theoretical lines".

He further states:

"It is high time that this distinction was emphasized throughout America".(4)

For the session of 1929-1930, the failure of Virginia high school graduates, in colleges accredited by Association of Colleges and Secondary Schools of the Southern States, amounted to 17.6%. William R. Smithey, Professor of Secondary Education, University of Virginia, who made the report by Virginia Schools on this list, stated that:

"The Virginia rate of failures in comparison with the rate of failures of the other southern states has been and is very high".(5)

In addition, it has been necessary to have enacted compulsory attendance laws to keep students in school. History of education does not show that education should be forced on the populace. Instead, it should be a privilege of the democracy. Secondary schools and their curriculums should be so organized that the Virginia program may present to its youth desirable rather than compulsory education.

The need for more vocational training is prevalent in the schools of Virginia. Inability to offer such training under the present school systems is largely due to the financial burden that it would impose on the people. Some reorganization, such as setting up larger units of administration and thus bringing about further consolidation, is necessary to make this enriched curriculum economically possible.

Vocational education is expensive in this sense for a small school. It is occupational and therefore specific. In a small rural school, classes are limited to agriculture and home economics and sometimes the enrollment in these subjects is too small to be economical. As the high school enrollment increases, then the number of individual students adapted to other vocational pursuits increases to a point where instruction can be economically furnished in commercial education and industrial and trade training.

The size of the high school and of the administrative unit seems to be one of the chief obstacles to increased vocational instruction and guidance.

Problems in Transportation

There are many problems involved in transporting each boy and girl to and from school, since the one and two room schools have been removed. Safe,

comfortable buses and capable drivers must be provided. There must be routes that reach the pupils, yet which are not too long. The routing of buses creates quite a problem. This is especially true when students live close to county lines. Quite often, they are transported eight or ten miles further to one of their county schools to save the payment of tuition. The additional distance traveled is not the only handicap. The expense to the county should also be considered. Often these children are transported to another trade center, which is undesirable as it destroys to an extent the continuity of the community. A community is a social and a natural area whereas a county or a school district is a political area and sometimes unnatural.

In order to increase the curriculum offering, further consolidation of schools into larger units of instruction must be affected. This will call for a solution to many present bus problems. The per capita cost of transportation must be reduced so that further consolidation of schools may be economically possible.

Problems in Supervision

The principal, with two periods a day free from teaching, has scarcely time to plan his work and to attend to problem cases and other office work, to say nothing of general supervision. Due to the lack of time and specialized training on the part of the superintendent and principal, it is necessary that a more adequate system of supervision be worked out to meet the needs of the highly specialized and technically trained teachers. It is impossible for the principals to do the necessary supervising. Supervision is not merely an inspection or checking on teachers. Instead, it is an investigation to determine, with the individual teacher, the best way to meet the

problems of the class room and thereby make the curriculum more interesting and functional for every student. The local county school boards have begun to recognize, in a small measure, the need for supervision on the elementary and grammar school levels, but they cannot understand why this need should exist in the high school.

Adequate supervision may also solve the problem of so organizing the school as to hold the interest of the pupils and decrease the high rate of failures and drop outs. These failures cannot be charged to the content of the curriculum alone. The location of subjects within the curriculum and the failure to guide each pupil into the most appropriate courses for his individual development must also be held responsible. This, perhaps, should come under school organization and vocational guidance. Although a detailed study of these two problems will not be made here, it must be borne in mind that they may become major items in the success of the proposed curriculum.

CHAPTER II METHOD OF PROCEDURE

Trends in the Curriculum

The State Board of Education made an exhaustive study of the curriculum in 1931-1932. It organized among the teachers, through the schools, a study course followed by courses in summer school at the various teachers' colleges on the curriculum. In addition, each college assumed the responsibility of writing a section of the proposed New Course of Study that was to follow. This work was developed by the teachers and pupils under the leadership of the colleges in 1932-1933. Such study and experience on the part of the teachers, gave them a better insight into the needs of the curriculum and destroyed to an extent the over emphasis that had been placed on subject

matter.(6)

The writer conducted one of these study courses with teachers in 1931-1932, and later took the course offered by one of the colleges. At this time the history of education and the development of American education were studied. Following this, a survey was made of the schools in the various counties of the state with the view of comparing their offerings in vocational education. History revealed that there had been an increase in the vocational offerings, especially during the past 15 years. Vocational instruction in the grades is largely industrial arts, placed there not so much as a matter of vocational training but for the purpose of developing manual ability, encouraging creative effort and for the sake of guidance possibilities.

The Problem

Evidences that the present day grade and high school educational facilities do not meet the demands of youth are prevalent in the state of Virginia. Therefore the problem is the development of a plan to administer the new curriculum program of Virginia so that each pupil may be better prepared vocationally for life.

Under present conditions, it is not economically possible to offer vocational subjects in each high school. Although some schools are now offering a limited amount of vocational instruction, such courses are usually confined to home economics, vocational agriculture or commercial subjects.

In solving the problem of providing adequate vocational education in Virginia, it is necessary to deal with such limiting factors as lack of equipment, lack of enrollment, lack of money to employ properly trained teachers and provide sufficient supervision and also lack of interest on the part of the general public due to insufficient funds to investigate and inform the

public of educational needs.

It will be necessary to develop a plan for enriching the educational program in Virginia, and the cost of the proposed program must compare favorably with that of the present program. Such a plan must include a means of increasing enrollment to such an extent that the enriched program will be financially possible.

Objectives of the Study

A survey will be made of the schools in several counties in Virginia in order to get a true picture of present conditions, and thereby prove the existence of the problem as stated previously. Then, with the very definite information gained by this investigation as a basis to work on, an attempt will be made to solve this problem.

In order to thoroughly understand the fundamental reason for making this study, a brief summary of the history of education must be given so that the growth and trend of education through the ages may be seen.

It is also necessary to cite sufficient literature to show reasonable proof that vocational education is worthy of consideration and that it should be included in the curriculum of every boy and girl in Virginia.

Existing conditions must be studied and analyzed carefully in order to determine what investment of money, time and equipment is needed. It is well to investigate every phase of the present educational program which has any bearing on the problem to be solved.

A working plan for administering an enriched educational program in the area studied will be proposed. This plan will be guided, so far as possible, by results of educational experiments which have been performed.

Scope of the Study

This study was made using the following counties to comprise the school

district: Prince George, Surry, Sussex, Greenville, Southampton and Isle of Wight. They are well located geographically for this study. Prince George, Surry and Isle of Wight are bounded on the east by the James River; Prince George on the north by the Appomattox River and the City of Petersburg. Sussex, Greenville and Southampton lie to the west and south respectively. There are four state highways running north and south across these counties. Two run east and west. There are many miles of good secondary roads. This area comprises one of the best farming sections of the state and includes quite a few small towns, whose schools are operated under the county system. There is also quite a bit of industrial development in and adjoining these counties that will call for various vocational courses in the curriculum. It will be possible to apply this study to any other group of counties in the state by slight modification to fit the topography, roads, type of farming and industrial development.

Making the Survey

A survey blank was prepared calling for that information which was pertinent and available concerning the present school system. One of these survey blanks was filled in concerning every high school in the proposed district. A partial survey was also made of the grammar schools in the counties. These data were collected by the writer from the reports of principals found in superintendents' offices for the year of 1932 and 1933. In each case, the superintendent helped secure this information, especially that which had to be interpreted. He was also given a chance to contribute, which was helpful especially with regard to bus routes.

The Contents of the Survey

This survey called for complete information on the entire school set-up.

The value of buildings, ground and equipment, all laboratory equipment and libraries were listed separately. The scope of the school was given, listing separately enrollment by high school, sixth and seventh grades and primary grades. The number of teachers, with certificates held, the average salary of grade teachers and actual salaries of high school teachers were obtained; also the curriculum offering of each school, the number of graduates and the number who went to college or business school the preceding year. Information concerning each truck was secured, including truck number, kind of truck, valuation, name of truck driver, number of miles and kind of roads traveled daily, enrollment of truck, annual cost of truck and trade center of pupils transported. It was also ascertained whether each truck was open or closed and whether it was county owned or contracted. At this time each route was given its county number and plotted on a map especially prepared for the study. This was done while in touch with the superintendent, who could help straighten out bus routes and make suggestions on re-routing. This information was later transferred to the map included in this study at the close of Chapter IX, which deals with the county bus situation.

Compilation and Interpretation of Data

After compiling the information found on the survey forms, a further study was made to attempt to size up this information. The history and aims of education were reviewed. An additional reading was done on transportation, economical school units, size of classes and supervision. The various tables found in this study were compiled on tabulated information gleaned from the surveys. Then the analysis of the problem and setting up of the

proposed system were at hand. This called for the preparation of the map that shows the present and proposed bus routes, and the consolidation of bus routes and schools. Figures representing the amount saved by this consolidation and comparative cost to be found in the program of the enriched curriculum and improved supervision are to be presented in further solution of this problem.

CHAPTER III HISTORY OF EDUCATION BEARING UPON THE CURRICULUM

Vocational Training in Early History

Primitive education had little value other than adjustment to environment, preservation of man and continuance of the races.(7)

Oriental education was intended for the select; it being very difficult in its content and of no service to those following the occupations of life. In China, no thought of the occupations was put into education for fear of loss of prestige.(7)

In ancient times, the Greeks gave to the world its first educational progress. It was demonstrated that, through education and training, not only the individual, but also the country itself may be developed. Then, as in primitive days, the woman was neglected due to her lack of importance in society. Roman education paved the way for the later Christian. However, this did little more than other forms of education, with the exception of training of bishops to take up the work of the church.

The Monastic education was the first to take a vocational slant. The monks of the west were sent out to work in the soil for seven hours a day. They spent two hours each day in systematic reading. Later, the craft guilds, merchants and other forms of vocations were added to the schools. Toward

the close of the middle ages the medieval universities appear. One also finds here the rise of industrialism, with the workman setting up standards and teaching the trades. The Renaissance brought into Europe a revival of learning and a religious and educational awakening. The Past Royalist, in 1555, held that "reasoning is more important than memory".

Newton's Law of Motion, among others, marked the beginning of the development of science in the seventeenth century. The schools were slow to introduce the study of science due to the influence of the church. (8)(9)(10)

Colonial Education

In colonial days, text books were very poor. The texts were few, other than Latin and Greek classics. Therefore, most teaching was done by dictation. One of the first important texts in common use in the schools was the Horn book. It consisted of a single page of printed matter, such as the alphabet. Sometimes the whole of the Lord's Prayer, or Apostle's Creed or parts of the catechism were included on the page.(8)

Later, the New England Primer, published in the seventeenth century, supplanted the Horn book. Other books for the elementary school followed, as printing became more universal.(11)

The governmental school, found in the colonial school organization, appeared first in Massachusetts. Then Massachusetts may be said to have inaugurated the first real attempt at public education in America. The character of the school in this colony was developed in accordance with the peculiar form of society and government which prevailed. This colony was democratic, concentrated, and homogeneous, as compared with the cosmopolitan and social structure in the middle colonies, or the class distinction and scattered population of the south.

"This condition was a result of the radical ingrained religious conviction that every one was a child of God, capable of becoming a vital and useful member of society and that the community was obliged to give him training to that end in the home, the church, and the school."(10)

Out of the Calvinistic attitude sprang a spirit of cooperation and helpfulness, a general participation of all townspeople in local government, and the Massachusetts type of school organization. Most schools were first supported by public subscription. However, by the first quarter of the century, they were established by the colony at large; every citizen having a working share.

The first educational act, passed in 1642, was similar to the old English apprenticeship law in its provision for industrial education. While it was broadened to include home literary elements, no school was mentioned in it. In 1647, each town of fifty families was required, under penalty of five pounds, to maintain an elementary school that should be partly supported by tuition. The grammar schools aimed to prepare students for Harvard College, which had been founded in 1636.

The act which was passed in May, 1647, had at its beginning the following peculiar preamble.

"It being the chief project of Satan, to keep men from the knowledge of the scripture, as in former times keeping them in unknown tongues, that so at least the true sense and meaning of the original may be clouded and corrupted with false glosses of deceivers; to the end that learning may not be buried in the grave of our forefathers, in church and Commonwealth, the Lord assisting our endeavors. It is therefore ordered by this Court and authority thereof that every township within this jurisdiction, after the Lord has increased them to fifty householders, shall then forthwith appoint one within their town to teach all such children as shall report to him."(8)

The germ of the present common school system of the United States appeared in the educational activity of the legislature in colonial Massachusetts.

The legislatures of Massachusetts, in 1647, and Connecticut, in 1650, ordered

that grammar schools be established in every town having a hundred families. They were secondary and sustained no relation to the elementary schools. They were established principally to prepare children for college (although sometimes the college was not established) and thus to furnish preparation for the Christian ministry. Hence their course consisted chiefly in studying the Latin and Greek classics, the New Testament, Lily's Grammar and the Colloquies of Corderious. This type of school held until well into the nineteenth century; yet no effort was made to conform the curriculum to the growing needs of the colonists.(7)(12)

The Virginia Bill for the More General
Diffusion of Knowledge

The Virginia Bill for the More General Diffusion of Knowledge, which was submitted to the Legislature in 1779, was the first American proposal for a modern state school system. The bill was drawn up by Jefferson when he met Wythe and Pendleton in Williamsburg, in 1776, to revise laws of Virginia. Lack of finances delayed action until 1796, when the bill was passed. However, it was left to the court to decide when the act should be carried into execution. The court, being made up of rich people who paid most of the taxes, naturally held up the bill. Then came the establishment of the Literary Fund by James Barbour, one time Governor of Virginia. With this, Virginia was second in the south and fifth in the United States to establish a permanent school fund. Mr. Mercer, in 1818, framed a bill that included the important features of Mr. Jefferson's plan; yet it was more elaborate. It passed the House, but failed in the Senate. The bill provided for a Board of Public Instruction and a salary of \$200. for each teacher. Finally, in 1846, a system of primary schools was provided in part for the state. Then, in 1870, came the important period in the development of popular education with the appointment

of Dr. W. H. Ruffner, who was suggested by Robert E. Lee, as the first superintendent of public instruction in Virginia. However, not until 1900 was there any development in comparison with the progress of the State.(11)(12)

The Basis of Educational Growth

Educational growth and modern trends can be traced to the philosophy of the four great reformers of the seventeenth to nineteenth centuries. There are few tendencies in the curriculums and methods of the schools today that cannot, in their beginnings, be traced to Pestalozzi, Herbart, and Froebel. But the reforms of all three find their root in Rousseau. Rousseau's naturalism was continued by Pestalozzi in his development and observations which were in turn further elaborated on by Froebel and Herbart respectively. As a result of Pestalozzi's observation method, Herbart's moral and religious aims and Froebel's mystic interpretation of natural development, the informal occupations such as manual training and other studies of motor expression together with psychological and social principles, underlie every stage of education. Hence the development of modern educational practice falls distinctly within the nineteenth century due to these three great reformers.(8)

Growth of American Schools in the Nineteenth Century

The academy became prominent, providing a means of education that was far reaching. From the time of the Revolution to the middle of the nineteenth century, it was the undisputed leader in secondary education. It was first founded by Franklin in Philadelphia in 1753. Its purpose was to provide preparation for college and training for life. It was established throughout New England, New York, Pennsylvania and other states. These were private institutions, generally endowed, and sometimes recognized and partly supported by

the state. In 1853, New York passed a law permitting the foundation of a senior free school, which offered the advantages of secondary education. Most of these grew into high schools and absorbed the academy.(11)(13)

The Public High School

The high school followed the academy, and was first established in Boston in 1821. The primary motive of the founder was to provide preparation for life, but the additional function of preparation for college was soon assumed. Commercial subjects were the only non-academic classes offered. By the middle of the nineteenth century, most states had adopted the public school system. From the time of the Civil War to 1890, the high school made rapid strides, especially in the middle states. The high school started out with tuition, but this practice was later discouraged due to lack of attendance. Later, the state recognized its duty to provide for education at public cost, which made schooling absolutely free to the students. This opened the way for the first compulsory attendance laws.(8)(13)

The growth of the high school has been rapid and in 1890, it was considered the dominant type of school. The total number of private and public high schools at that time was 4158, with 297,894 students. In 1912, there were 13,268 high schools with 1,246,827 students; an increase in 22 years of over 300% in number of schools and 400% in number of students.(14) Now, free public schools are within reach of the entire population, with compulsory attendance laws for the children between the ages of seven and fifteen. While elementary and high schools are within reach of everyone, the percentage of high school graduates is small. The high schools are not so academic as were the academy or Latin grammar schools; yet they are in a measure failing to meet the needs of the day. Since 1900, there has been considerable broadening

within our high schools by the addition of commercial work, vocational agriculture, home economics and industrial shops. Many other courses of a vocational nature are now found in the programs of a number of public high schools.(14)(15)

Introduction of Vocational Education

Commercial subjects were first found in public high schools as early as 1821. They received emphasis until the close of the nineteenth century. Schools under private management provided training for clerical positions somewhat earlier, but the high school did not assume the burden of providing this training before the late nineties. The distribution of commercial subjects in order of importance were: typewriting, bookkeeping, stenography, commercial arithmetic, and commercial geography. Other courses included were: commercial law, salesmanship, advertising, office practice, business organization, spelling and penmanship.(16)

By the middle of the last century a few schools were offering courses which fall in the field of home economics. Wide appeal has been made during the early part of this century for the expansion of this work. The courses, in order of importance are: sewing, cooking, home management, home nursing, child care and training, chemistry of foods, canning and millinery.(17)

Vocational agriculture, which was started early in the twentieth century, has experienced continuous and rapid growth. The present courses include a study of the farm animals and crops found in the respective communities as well as farm management problems, fertilizing problems and farm shop jobs which cover wood work, blacksmithing, pipe fitting, painting, repairing farm machinery, concrete work, leather work and brick laying.(18)

Trade and industrial education has been thought of in the past as a

course for evening schools, to provide education for adults in the trades or industries in which they find themselves. There is much need in the schools for this type of instruction, which would not come before the senior high school. However, no little money is spent each year by industries training men in service. This type of training would be practical only in those schools serving industrial centers, and for the particular industry represented.(19)

Viewpoint of Educational Leaders Reflecting
Vocational Tendencies

Dewey says that Plato, among the ancients, and Froebel, among the moderns, learned the principles of education as a natural development.

He also says, referring to the child who is never quite sure whether he really understands or not:

"Allow him to act out the idea and it becomes real to him, or the lack of understanding is shown in what is done. Action is the test of comprehension. This is simply another way of saying that learning by doing is a better way to learn than by listening."(16)

Froebel said:

"The young growing human being should be trained early for outer work, for creative and productive activities. Lessons through and by work, through and from life, are the most impressive and the most intelligible, the most continuous and progressive, in themselves and in their effect upon the learner. Every child, boy and youth, whatever his position and condition in life, should devote, say, at least one or two hours a day to some serious active occupation constructing some definite external piece of work. It would be a most wholesome arrangement in school to establish actual working hours similar to existing study hours, and it will surely come to this."

Briggs, in his book entitled What Next in Secondary Education, states that our present 7-4 plan is very unsatisfactory, due, in large measure, to failure to organize and present the proper information to the pupil at the time he will make the most use of it.(20)

In his book entitled The Junior High School at Work, Briggs presents

some established facts in favor of the junior high school and the 6-3-3 plan of administering same. He says:

"Beyond the minimum of education necessary for all normal citizens in a democracy, a minimum that can easily be provided in the sixth year elementary school, each individual should be developed according to his interest, his aptitudes, his capacities and his abilities, whatever they may be, and to the extent of his power of assimilation."(21)

The chief reasons most often given for the establishment of over 266 junior high schools are: a. To provide educational opportunities, b. To introduce prevocational work earlier, c. To increase retention, d. To provide for earlier differentiation, e. To provide conditions better suited for grades seven, eight, and nine.

Summary of Vocational Trends in the History of Education

Since the beginning of educational history, there has been a continuous growth toward vocational education.

a. The objectives of primitive education were the adjustment to environment, preservation of man and continuance of the races. These, while not recognized as such, were definite trends toward vocational education.

b. The Greeks demonstrated that, through education and training, not only the individual but also the country could be developed.

c. The Monastic education was the first to be recognized as taking a vocational slant.

d. The first educational act, passed in 1642, provided for industrial education.

e. Modern trends and educational growth can be traced to three men of the nineteenth century: Rosseau, Herbart and Froebel. This is especially true of the informal occupations such as manual training and other studies of motor expression.

f. The primary motive of the first high school, which was established in 1821, was to provide preparation for life. At this time commercial subjects were added to the curriculum. By the middle of the nineteenth century a few schools were offering courses which fall in the field of home economics. Vocational agriculture was introduced in the early part of the twentieth century.

g. Since 1900, the high schools have been broadened by the addition of commercial work, vocational agriculture, home economics and industrial shops.

CHAPTER IV STUDIES AND SURVEYS ON SECONDARY EDUCATION

Report of the National Council in Education

A National Council of a committee of ten was appointed in 1892, headed by Charles W. Elliot, to study the secondary school studies. They reported in 1893. In 1895, the Department of Secondary Education appointed a committee on college entrance requirements. Both secondary schools and colleges were represented. This committee reported in 1899. A Commission on the Reorganization of Secondary Education was appointed in 1918. The reports of these three committees have been selected for the interpretation of curriculum trends because they were potent factors in determining the lines along which curriculum reconstruction should be made in the period of 1890 to 1920.(22)

The committee of ten regarded the secondary school as being designed for "That small proportion of all the children who show themselves able to profit by an education prolonged to the eighteenth year, and whose parents are able to support them while they remain so long at school". The committee on college entrance requirements felt that secondary education was for a larger and less select group.

Report of Commission on Reorganization
of Secondary Education for Virginia

The report of the Commission on the Reorganization of Secondary Education, in 1918, advocated "Such reorganization that secondary education may be defined as applying to all pupils of approximately 12 to 18 years of age." Since 1918, the general trend has been toward a more general acceptance of this principle in planning the program of secondary education. The idea that the secondary school was primarily a preparatory agency for the college was held until about 1910. By this time the high schools had so increased that they were able to throw off much of the dominance of the colleges. The Commission on Reorganization of Secondary Education advised differentiation of the curriculum with respect to probable vocational needs. They recognized seven new subjects: 1. Agriculture, 2. Art education, 3. Business education, 4. Household arts, 5. Industrial arts, 6. Music, 7. Physical education. It held that the secondary school is primarily a finishing school with the fitting function secondary and incidental. This Commission also stated that the type of education which will best develop an individual as a member of democratic society should be accepted by institutions of higher learning as satisfactory preparation for entrance.

The Cardinal Principles of Secondary Education, issued by the Commission on Reorganization in 1918, set forth seven objectives of secondary education, and regarded the formulation of objectives as fundamental. These objectives were: 1. Health, 2. Command of fundamental processes, 3. Worthy homemembership, 4. Vocation, 5. Citizenship, 6. Worthy use of leisure, 7. Ethical character. The Cardinal Principles of Secondary Education, in its seven major objectives represents quite an extension of the responsibilities of the secondary school.

In 1890, health was given practically no consideration as one of the major objectives to which secondary education should contribute. Today, it occupies a foremost place. Command of the fundamental processes has been reinterpreted in terms of life activity. Vocation has received increased emphasis. Worthy use of leisure has been given much attention, chiefly in terms of extra-curricular activities. In a word, the trend is toward the extension of the scope of conduct for which the secondary school should assume responsibility.(22)(23)

Report to Education Commission of Virginia
by Dr. O'Shea

Dr. O'Shea, in his report to the Education Commission of Virginia, states:

"At least one year of work in home economics should be required of all girls in the last year of the elementary school. This work should include food values and the preparation of foods and the sanitary management of the home and the environment. Every public high school receiving state aid in Virginia should be required to offer at least one year of home economics which should be elective for all girls in the high school. Courses of study should be so arranged that every girl should be permitted to elect at least one year of home economics. Vocational home economics should be extended as rapidly as funds can be provided for the maintenance of this work."

"The state should as rapidly as possible extend the work in vocational agriculture by supplying the necessary funds, to the end that every farm boy in the state may have an opportunity to study modern agriculture science and methods, if he is desirous of doing so".

"The State of Virginia should increase its state appropriation for the maintenance of trade and industrial education to equal at least the subsidy derived from the Federal government under the provisions of the Smith-Hughes Vocational Act".(24)

CHAPTER V THE SECONDARY SCHOOL CURRICULUM

Reorganizing the course of study in the schools of Virginia so the new curriculum may more nearly meet the needs of boys and girls is now well under way, and the problem of administering it is at hand. The composition

of the new curriculum and how the state will administer it are the questions being discussed today. The course of study is often confused with the curriculum. The curriculum is continuous through the child's learning experience and includes all those experiences of the child in the classroom and out of it. The course of study is an outline or guide that is used in building the curriculum. The course of study is not as continuous as the curriculum. The curriculum should include first the child, then subject matter. The child and the teacher should construct the curriculum, which should also cover the so-called extra-curricula activities.

Subject Matter in the Curriculum

Subject matter has been stressed in the past. It includes everything with which the individual comes in contact. It takes in all of the experiences of the child. What he sees, hears, and actually goes through with a purpose is subject matter to him. Everything in the curriculum becomes subject matter. Subject matter may be divided into material culture, adaptive culture and group culture. Material culture precedes adaptive culture. Material culture may be used or changed to adaptive culture. Group culture consists of those experiences that have been passed on to us by others and coupled with our experiences. Adaptive culture results from attempting to solve problems. It can only be estimated whether or not a given unit of subject matter is valuable to a given boy or girl. The needs of the community in which the child is most likely to live must be taken into account. Subject matter must be limited in the educational process lest it be used, rather than the child's experience, as a basis of teaching. Subject matter should not be presented unless it is specific and closely related to the experiences of the individual. Measurements have been directed too closely

to subject matter, and not to the ability of the student to apply that subject matter. Less emphasis should be put on mental ability and more emphasis should be put on adaptability. Progress has not been recognized unless it could be measured in terms of subject matter.(25)

There is need for a test with which the progress of the student can be measured and each achievement recorded. Such a test would be more satisfactory than the subject matter test, on which a great per cent of the students fail. Too great dependence upon subject matter in the curriculum is now being changed by a thorough reorganization based on the experiences of the group taught. It must be remembered that the child is to be taught, rather than subject matter. The kind of product the school should turn out must also be kept in mind. The line or lines along which the child is likely to spend most of his time, after completing his school career, must be considered. Education is a selective matter. It should be a collection of the happenings of the past that are most likely to fit the child for the society in which he will live in the future.(16)

Instruction should be organized in units around the experiences of the child. Experiences and subject matter are adjunctive to education. Knowledge is information that may be catalogued for use, while experience is the idea to search out for information. If a child searches for anything, he will have an experience when it is found. Every educational activity has a purpose which should have the interest of the child. Instruction is a series of materials presented in preparation for adulthood. Objectives, however, differ. The teacher will have an entirely different aim in the outset from that of the child. Yet, the student's aim constantly changes and more nearly approaches that of the teacher.

Briggs says:

"The primary objective of the school is (a). To teach its pupils to do better the desired things that they are most likely to do any way. (b). To reveal higher types of activity and to make these desired ends to an extent possible. (c). So far as it is possible every subject should be organized so that it is valuable to the extent to which it is pursued."(21)

Then, it may be said that an educational objective should be specific, should solve a problem of life, should reveal high types of learning and be made interesting to the students.

Organization and Method of Instruction

Briggs states:

"In looking for a solution which will take due account of all of the children, of all of the people, intelligence and aptitude tests with the proper kind of junior high school exploratory courses, will go far toward making proper classifications."(21)

"The purpose of the intermediate school is to explore by means of material in its self worthwhile, the interest, aptitudes and capacities of pupils. This necessitates a much wider variety of offering than the traditional program of studies provided. It demands that materials for exploration so far as possible be justified for other ends of education. It should reveal to pupils by material otherwise justifiable, the possibilities in the major field of learning. Another purpose of the junior high school is to start each pupil on the career which as a result of the exploratory courses, he, his parents and the school are convinced is most likely to be a profit to him and the state."(21)

Briggs further states, in the Okmulgee Junior High School, that of the 45 who had broadening and finding courses in Latin, and continued, three failed the first year and one failed the third, or 9%. None of those failing the broadening and finding course took Latin. Of the 69 who did not take the broadening and finding course in Latin, but elected Latin in high school, 16, or 23% failed. The failure in the entire Latin department, has been reduced in four years from 40% to 6%. Briggs claims:

"The three R's were not sacrificed, the old line subjects were above standard, as shown by test, and the holding power of the junior high school increased 45% and the senior high school increased 55%."(21)

Ayer contends: "The holding power of the high school is one of its first measures of success".

While Mr. Briggs is very emphatic in his Junior High School at Work, regarding the possibilities of the broadening and finding courses, he acknowledges that the great benefits derived from them are in language, higher mathematics and other more academic subjects. It must be remembered that the same degree of results are not found in the vocational courses. This study will not deal with the plan of guidance or type of school necessary to put the vocational curriculum in operation. Organization of the high school and vocational guidance must, however, be recognized as major problems for the successful administering of the vocational curriculum.

Curriculum Changes

The present schools are built around a program of studies which is academic and traditional. It was shaped by the colleges and by the inertia of the past, rather than by the child and the community of today. Mass methods are still in use and little attempt is made to recognize individual differences.

Bode says, "The child should be considered the unit in learning".(26)(27)

The U. S. Bureau of Education, in its biennial survey of education, 1916-1918, Bul. 90, shows that ten out of one hundred pupils starting in the first grade finish high school. Yet there is no effort in the schools of America to guide the 90 pupils to place their talents where they may be put to maximum use. In order to increase this group, the curriculum must be enriched to meet the interest of the pre-adolescent and adolescent child. He is anxious, at this age, to do a real thing in a real way and he chafes under the restraint of school tasks that ordinarily have touched his life in so

few places.(28)

Carlyle says: "The best educated man is the one who has touched life in the most places".

American life is dynamic, and not static. Therefore, the curriculum must change to meet the needs of this changing society. Transfer of knowledge does take place from the general to the specific, only to the extent that individuals can apply it to a specific incident. The curriculum must be a school of life. A sympathetic attitude toward childhood must prevail, as well as the knowledge that growing can take place only through progressive pupil activity.(16) Pupils must be given what they will later need, by giving them information and training that will best help them in solving their problems of life. This necessitates varying the curriculum in different communities as well as in the same school to fit the needs of the individual child.

Existing Facts Influencing Public Opinion

Research shows civilization to be dynamic, yet schools have continued with a more or less static curriculum as evidenced by the fact that more than 10% of the students who enter the primary grades fail to be graduated.
(28)

The indifference exhibited by the children and parents in the state of Virginia emphasizes the serious need of reorganization and curriculum adjustment in the schools. Of the 724,137 children between the ages of seven and nineteen inclusive, only 578,066 are enrolled in schools. Secondary schools are not properly organized; evidenced by the number of repeaters, failures and the mortality of the high school. From one-third to one-half of the students drop out between the seventh and twelfth grades.(29)

The cost of education is heavy. One-third to one-half of the total taxes collected in Virginia are applied on education. Should the tax payer and the rural community be further robbed by having the future citizens trained to do only the things that will take them away from the community that supports this training? This is not only a financial burden on the rural community, but it robs it of its future citizens and renders it unable to meet its social, moral and financial obligation to society; thereby failing to enrich country life. County says:

"If educational thought is to be effective in modifying practice, it must be kept close to society."(27)

An article by Arthur B. Hewson in Nations Schools ("Abstract") states in part:

"The key subject in high school should be philosophy in its true sense, namely the science of sciences. Philosophy is that science which correlates all human knowledge as to things in the fields of mind and matter into a system that enables a man to live intelligently. The pupil should study psychology so as to acquire some knowledge of the motivating factors in the action of the human mind. The pupil should be taught the elements of social science so that he may learn something of his place in this world, his proper relationship to his fellows and the spirit of tolerance, cooperation and fair play. The pupil should be taught the fundamentals of music so that he may benefit by its elevating influence. Athletics should be as much a part of the curriculum as mathematics, because it is an essential stimulus in the business of character building."

"The study of Latin and French in the high school is a pure waste of time and is continued only because it is a cultural tradition utterly without basis in logic or common sense. Latin and French should both be dropped by the universities as entrance requirements as Latin has been dropped at Harvard and Princeton.... It is questionable, however, whether the teaching of languages other than English should be within the scope of public education except in the state university."

"In the teaching of expression in action should be included training of the hands themselves to dexterous use and intelligent use of tools. In no case should attempts be made at special vocational training as part of the program of public education except in the university or in affiliated, industry sponsored, apprentice schools".

"Machine lathe work or woodwork should be done in high schools not with the idea of making machinists or woodworkers, but to develop a capacity for proper coordination of hand and brain in giving concrete expression to an idea. Drawing should not be taught with the idea of making artists or draftsmen of the pupils, rather, it should aim to develop their capacity to express their ideas in picture form".

"Domestic science should be taught to girls principally to prepare them to take their proper part in the business of home making in an intelligent way, and also because cooking and needle work are equivalent to the handiwork and tool work through which boys are taught expression in action"

"Now to apply the system outlined is the job of the pedagogue, and to do it is a task that would tax to the utmost his capacity to discard his thought patterns. If he can successfully cast off these worn-out formulas he may share in the great adventure of building an intelligent democracy far different from the inert dumb thing we call democracy today...."(30)

Dr. Sidney B. Hall outlined in The Richmond News Leader in 1931, some of the outstanding needs of the schools of the state. He said:

"There is greater need for revised curriculum for the elementary and high schools of the state. The need for supervision grows greater every day. The school board has committed itself to an adequate program of supervision in the schools of the state. There is also great need for better coordination between the teacher training institutions of the state and the public elementary and high schools. We are now thinking in terms of larger units of administration and more economical units are recommended for our counties by adopting the County Management Form of government. Some counties have already combined their schools under one superintendent in order to increase the efficiency of the schools. The supervision and administration of our smaller schools, supported by the strength of a larger administrative unit, will insure provision of a better type of school that will be comparable with the supervisory program in our city schools."

Vocational Training

Investigation has shown that formal subject matter is not valuable to the extent it was once considered. Therefore, it would seem necessary to pursue subject matter only as it is related to the purpose for which it is pursued, or for desired information.(31) A study of ex-vocational agricultural students in Virginia showed that 60% remained on the farm or in allied occupations. More recognition should be given the various vocations found

in each school community. Children should be allowed to broaden, beginning in the seventh grade. This is due to their mental age.(32) They should not be allowed to enter vocational courses before the first year of the senior high school and the high school should not attempt to finish the vocational student, but put him in a position to enter the vocation in training upon graduation. Since it is impossible to train all students through occupation it is necessary to make the most of the immediate present life by training the boys and girls to do better the desirable things they are most likely to do anyway. This, of course, will necessitate the reorganization and further consolidation of schools so that efficient units of instruction may be provided; at the same time enriching the curriculum with a course in each of the respective vocations found in the school's trade center.

Summary

- a. Subject matter is rapidly giving away to the child's experience as a basis of teaching.
- b. School organization and vocational guidance are recognized as major problems in the successful administering of the new curriculum.
- c. Research has revealed that the vocational subjects take their place with other subjects in preparation for college. Therefore vocational education is being looked upon more favorably by the general public.

PART II
THE INVESTIGATION

CHAPTER VI STUDY OF THE SCHOOL SYSTEM
OF SIX ADJOINING COUNTIES
IN SOUTHSIDE VIRGINIA

Existing Conditions

The group of counties chosen for the study is considered average, or above, for the schools in the state. There are some problems in each county, peculiar to that locality, that may offset an estimate without some knowledge of the situation. Isle of Wight county, which has a very small per cent of transportation over hard surfaced roads, comes in this group. In Sussex County, the schools still operate under the old district system with the exception of the school board, which is operated on the county unit basis.. Here, as may be expected, consolidation has not taken place as rapidly as it should to keep pace with the needs of the county. In several counties transportation has been reduced to a minimum. This has been made possible by the counties owning and operating their buses. In this way, they have sufficient buses to justify the employment of mechanics and they can purchase their gas and oil at wholesale prices. Southampton and Isle of Wight counties own all of their buses. In the counties studied, two-thirds of the school buses are county owned.

The curriculum of the schools studied is above the average. Quite a few of them offer vocational agriculture. Some offer home economics, and commercial courses. None offer any trade or industrial courses; yet Hopewell is practically surrounded by Prince George County, which is one of the greatest industrial centers in the south. Practically all of these counties have some form of supervision for the grades, but no supervision for the high schools other than that afforded by the principal and superintendent.

In Greenville County the high school students of the county are transported to a central school, with one exception. Little further consolidation is needed here, other than in the grades and in one small high school.

Capital Investment in Schools and Laboratories

Table I tells very conclusively where the larger buildings are and where the most equipment is to be found. These figures were taken from the preliminary and annual high school reports.

The size of the library of each school may be easily ascertained since a valuation of one dollar was put on each book.

It is interesting to check the degree of variation in laboratory equipment. Teaching of laboratory classes is next to impossible without the necessary equipment. For uniformity's sake, all schools should be given the same amount and kind of equipment on a basis of the size of the class to be taught. By taking the average of the cost of the science laboratories and comparing this with that of vocational agriculture, home economics and commercial training, one finds that the vocational work is not as expensive as it is reported to be. It compares very favorably until the number of students using it is taken into consideration. The cost is a little higher per pupil than that of other laboratory equipment. However, there is more stability to the equipment for vocational work than to other laboratory equipment. A further study of this table will reveal the impracticability of teaching a laboratory class in science with the limited amount of equipment in the inventory of some of the schools. This is another reason advanced for consolidation of the small high schools, which are usually poorly equipped. For example, the value of equipment for science at Carson is \$10. and its neighboring school, Stony Creek, has equipment valued at \$940; in spite

TABLE I
CAPITAL INVESTED BY SCHOOLS

County and Schools	Building and Grounds	Library	Science	Laboratories		
				Agriculture	Home Ec.	Commercial
GREENSVILLE:						
Emporia	\$66,350.00	\$1,909.00	\$625.00	\$300.00	\$500.00	\$400.00
Purdy	6,200.00	237.00	75.00			
TOTAL	72,550.00	2,146.00	700.00	300.00	500.00	400.00
AVERAGE:	36,275.00	1,073.00	350.00	300.00	500.00	400.00
ISLE OF WIGHT:						
Smithfield	90,950.00	1,510.00	800.00	200.00	600.00	
Windsor	45,772.00	1,725.00	750.00	600.00	550.00	
Carrsville	23,820.00	850.00	490.00	515.00		
Isle of Wight	28,916.00	1,110.00	350.00	515.00		
TOTAL	194,458.00	5,195.00	2390.00	1830.00	1150.00	
AVERAGE:	48,614.50	1,298.75	597.50	457.50	575.00	
PRINCE GEORGE:						
Hopewell	526,716.00	2,547.00	1250.00		1000.00	2500.00
Disputanta	30,000.00	912.00	30.00	250.00	500.00	775.00
Carson	20,600.00	876.00	10.00	40.00	300.00	
Burrowsville	10,000.00					
TOTAL	587,316.00	4,335.00	1290.00	290.00	1800.00	3275.00
AVERAGE:	146,829.00	1,445.33	430.00	145.00	600.00	1637.50
SUSSEX:						
Waverly	75,000.00	1,600.00	800.00			600.00
Wakefield	60,000.00	1,710.00	764.00	1000.00	500.00	
Stony Creek	50,000.00	1,175.00	940.00			
Jarratt	50,000.00	660.00	990.00			
Sussex	5,000.00	627.00	75.00			
TOTAL	240,000.00	5,772.00	3569.00	1000.00	500.00	600.00
AVERAGE	48,120.00	1,154.40	713.80	1000.00	500.00	600.00
SURRY:						
Surry C. H.	43,600.00	1,650.00	540.00	275.00		
Dendron	10,350.00	764.00	400.00			
Claremont	40,350.00	839.00	655.00			
TOTAL	94,300.00	3,253.00	1595.00	275.00		
AVERAGE	31,433.33	1,084.33	531.66	275.00		
SOUTHAMPTON:						
Franklin	125,700.00	1,652.00	1400.00		350.00	
Courtland	90,800.00	653.00	875.00	750.00	500.00	
Newsoms	75,900.00	1,490.00	650.00	250.00		
Ivor	75,800.00	1,074.00	955.00	225.00		
Boykins	75,700.00	1,982.00	730.00	750.00	75.00	
Capron	40,300.00	900.00	315.00			
Drewryville	25,700.00	757.00	450.00			
TOTAL	509,900.00	8,508.00	5375.00	1975.00	925.00	
AVERAGE	72,842.85	1,215.42	767.85	493.85	308.33	
GRAND TOTAL:	\$1,699,124.00	29,209.00	14919.00	5670.00	4875.00	4275.00
Average by Participating Schools:	\$67,964.00	1,217.00	621.00	436.00	487.00	1068.00

of the fact that Carson has a high school enrollment of 95 students and Stony Creek, 62. Disputanta has an enrollment of 90 students and a science laboratory valued at \$30.

Comparative Salaries of Teachers

In Table II, on the following page the comparison as to salaries is given. Table II also shows the variation that exists from county to county and even from town to the adjoining county. The Hopewell grade teachers receive an average salary of \$1245. while the largest school in the adjoining county pays the teachers doing the same work an average salary of \$722. or \$523. less per year. How can the smaller county school keep pace under such circumstances? The high school teacher in Hopewell is paid an average of \$1314. per year while the same teacher in Disputanta receives an average of \$789. or \$427. less per year. In the author's opinion, it is not a case of Hopewell salaries being too high, but a case of county salaries being too low. A further study will give a variation of average high school salaries from \$769. to \$1314. or by omitting Hopewell, \$1012, which still leaves a \$243. difference.

The average salaries of grade teachers in high schools are higher than those of other grade teachers. It is also interesting to compare salaries of principals and vocational teachers with those of other teachers in the same school. The salaries of home economics and vocational teachers range from \$75. to \$200. per month. However, it must be remembered that all vocational agricultural teachers and a few teachers of home economics are employed and work during the entire twelve months and therefore their salaries are not as attractive as those of principals, who work only nine months. These teachers have evening school and part-time classes serving

AVERAGE SALARIES OF TEACHERS BY SCHOOLS AND FIELDS OF INSTRUCTION

County Schools	Principal	Agricultural Instruction	Home Economics	Commercial Instruction	No.	High School	Average No.	Teachers Grades	Other Grades
GREENSVILLE:									
Emporia	\$2475.	\$2250.	\$990.	\$1013.	7	\$1003.	14	\$790.	
Purdy	1125.						3	697.	
Grade schools							7		\$724.
ISLE OF WIGHT:									
Smithfield	2270.	2340.	855.		6	998.	9	759.	
Windsor	2043.	1824.	1404.		3	960.	6	759.	
Carrsville	1665.	1976.			2	994.	4	819.	
Isle of Wight	1503.	465.			3	936.	4	798.	
Grade schools							6		730.
PRINCE GEORGE:									
City of Hopewell	3200.		1317.	1200.	19	1314.	5	1245.	
Grade schools							51		1240.
Disputanta	1800.	2540.	1500.	810.	2	787.	4	722.	
Carson	1800.	2044.	810.		2	782.	3	718.	
Burrowsville	1013.				1	769.	3	770.	
Grade schools							21		780.
SUSSEX:									
Waverly	1800.			963.	3	1030.	7	708.	
Wakefield	2263.-----	Combined	810.		2	950.	5	744.	
Stony Creek	1860.				3	867.	4	753.	
Jarratt	1860.				2	963.	4	784.	
Sussex	1260.				2	855.	3	778.	
Grade schools							4		768.
SURRY:									
Surry H. S.	1350.	1350.			3	795.	5	702.	
Dendron	1350.	450.			2	795.	5	720.	
Claremont	1350.				2	900.	3	705.	
Grade schools							1		675.
SOUTHAMPTON:									
Franklin	2552.				6	954.	12	790.	
Courtland	1944.	1776.	1300.		4	868.	7	767.	
Newsoms	1944.	2232.			3	855.	7	775.	
Ivor	1926.	1572.			3	822.	7	762.	
Boykins	1899.	2232.			3	885.	7	755.	
Capron	1863.	1776.			2	868.	7	784.	
Drewryville	1710.				2	883.	4	711.	
Grade schools							15		647.

adults and out-of-school youth. In addition, they supervise vocational students' projects.

The fact that the lowest average salary is paid to the grade teacher, teaching in the isolated rural schools, does not seem quite fair, for here she has a much larger job than her fellow teacher who does the same work in an up-to-date high school and who has only one grade to teach. The lowest paid position in the county naturally falls to the poorer grade of teacher, which seems to reverse the order of things. The poorest teachers should be in the larger schools under more supervision.

Author's Opinion of Remedies Needed

The foregoing comparison of teachers' salaries indicates the need for some adjustment. In order to improve the existing conditions, it is suggested:

a. That a definite salary schedule for teachers be set up on a basis of educational qualifications, experience, ability, and responsibilities involved.

b. That the minimum salary be large enough to support a teacher for twelve months, and that it be in line with other salaries paid for similar work and qualifications.

c. That salaries paid to grade and high school teachers be in proportion with those paid to principals and vocational teachers.

d. That the teacher's salary be distributed over a period of twelve months, and that the teacher be required to be at work at least two weeks before school opens and remain at least two weeks after school closes.

CHAPTER VII THE CURRICULUM OFFERINGS BY SCHOOLS IN TERMS OF REQUIRED AND ELECTIVE UNITS

All of the schools in the counties are conforming to the minimum requirements set up by the State Board of Education. Three counties have additional requirements set up years ago by the local boards that have not been removed. They are Isle of Wight and Sussex Counties, each with one unit of plane geometry, and Surry County with two units of Latin. It is interesting to note that the smaller the school, the less selectivity in subjects is offered in the curriculum. The required subjects in some cases outnumber the electives. The electives are subjects that are more easily adapted to the needs of the students; yet they must be the first to be dropped. The choice of elective subjects is found to be based on the ideas of principals and superintendents rather than on occupation in the community and demands of students. This is evidence of college dominance over demands of boys and girls in the school. Subjects are being taught rather than individuals.

Home Economics

Only eight out of the twenty-five schools offer home economics. Certainly all the girls in this group of schools should be interested in training for home management. Nothing holds the interest of girls and gives them a better understanding of the problems of life more than a good course in home economics. Like agriculture for boys, home economics is indispensable for girls. All girls can profit by a one or two year course.(33) This could take the place of science in the first year for many students. Many girls would continue in school longer if allowed to make their choice of subjects in high school.(34) Dr. O'Shea, in his report to the Education Commission of Virginia, states that at least one year of home economics should be required of all girls in the last year of the elementary school, and that every public high school receiving state aid in Virginia should be required

TABLE III

CURRICULUM OFFERINGS BY SCHOOLS IN TERMS OF REQUIRED AND ELECTIVE UNITS

COUNTIES AND SCHOOLS	MATHEMATICS										SOCIAL STUDIES					SCIENCE				VOC. SUBJ.		LANGUAGES			COMMERCIAL SUBJECTS								TOTALS				
	Arithmetic		Algebra		Geom. Plane		Geom. Solid		Trig.		European H.		Voc. Civics		U. S. History		Civics		Gen. Science	Biology	Chemistry	Physics	Voc. Agri.	Home Econ.	English	Latin	French	Shorthand	Typing	Bookkeeping	Bus. Science	Bus. Arith.			Economics	Bus. Commerce	Penmanship
	R	E	R	E	R	E	R	E	R	E	R	E	R	E	R	E	R	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	Req.	Elec.	
GREENVILLE:																																					
Emporia	1	1	1	1	1						1	1	1	1	1			1	1	1	1	1	1	2	1	2	2	2	2	1		1	1	1	9	26	
Purdy	1	1	1	1							1	1	1	1	1			1	1	1			2	2	2	2	2	2	2					4	4		
ISLE OF WIGHT:					1*																																
Smithfield	1	1	1	1			1				1	1	1	1	1		1	1	1	1	1	1	2	4	4	2								8	19		
Windsor	1	1	1	1			1				1	1	1	1	1		1	1	1	1			2	4	2									8	12		
Carrsville	1	1	1	1							1	1	1	1	1		1	1	1		1			4	2									8	11		
Isle of Wight	1	1	1	1							1	1	1	1	1		1	1			1	2	4	4	4	4								8	11		
PRINCE GEORGE																																					
Hopewell	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	2	4	4	3	2	2	2	1	1			7	21		
Disputanta	1	1	1	1			1				1	1	1	1	1		1	1	1	1	1		2	4	4	1	1	1	1					7	17		
Carson	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		4	4	2	2								7	11		
Burrowsville	1	1	1				1				1	1	1	1	1		1	1	1	1			2	4		2								4	4		
SUSSEX:					1*																																
Waverly	1	1	1	1				1			1	1	1	1	1		1	1	1	1	1	1		4	2		1	1			1			8	11		
Wakefield	1	1	1	1			1				1	1	1	1	1		1	1	1	1			2	4	2									8	11		
Stony Creek	1	1	1	1			1				1	1	1	1	1		1	1	1	1				4	2					1				8	9		
Jarratt	1	1	1	1							1	1	1	1	1		1	1	1	1				4	2									8	7		
Sussex	1	1	1	1							1	1	1	1	1		1	1	1	1				4	2									8	7		
SURRY:																																					
Surry C. H.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	3	4	2	2*				1				9	16		
Dendron	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1		2	4	2	2				1				9	10		
Claremont	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1			4	4	2	2							9	7		
SOUTHAMPTON:																																					
Franklin	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1		4	4	3	2							7	13		
Courtland	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1		4	3									7	11		
Newsoms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1		4	3									7	17		
Ivor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1		4	3									7	16		
Boykins	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1		4	3									7	15		
Capron	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1		4	3									7	13		
Drewryville	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	2		4	3									7	13		

* - Required by County Board

* - Required by County Board

to offer at least one year of home economics.(18)

Vocational Agriculture

Vocational agriculture is being taught in fifteen out of the twenty-five schools. This is a very good percentage. Four of these schools, however, have part-time departments under teachers from other schools and they only offer two units in agriculture.

Dr. Garnett shows that a much larger per cent of rural than urban students drop out of school before finishing high school. Forty-nine per cent of the rural students against sixteen per cent of the urban students drop out. "This is a matter of great significance to country life", says Dr. Garnett. This situation, together with the fact that those with most initiative tend to migrate from the country, help to put the rural people at a still further disadvantage in their dealing with urban interest. In 1926, vocational agriculture work had been in progress ten years with about 6000 receiving instruction out of about 150,000 in the state eligible for this work.(35)

The performance in college, in terms of grades, for boys who took agriculture in high school improved in proportion to the number of years which had been spent in vocational agriculture. Those having one year of agriculture in high school made an average grade of 70%; two years, 71.6%; three years, 72.9%; and four years, 73.2%. The above study was made by Professor Edmund C. Magill in the College Performance of High School Graduates of Vocational Agriculture as Compared with Others.(36)

Another table from Mr. Magill's study gives the average grades of 188 freshmen male students at the College of William and Mary, University of Virginia, and the Virginia Polytechnic Institute, matriculating from

agricultural high schools, classified according to whether or not agriculture had been studied. The students who had studied agriculture did better at Virginia Polytechnic Institute with a grade of 72.2% against 69.9% for those who had not studied agriculture. The University of Virginia average was 78.5% against 78%, or .5% in favor of agricultural students. At William and Mary, agricultural students were at a disadvantage; their average being 76.7% against 78.4% for non-agricultural students. The total average was 72.9% for agricultural students, and 72.4% for non-agricultural students. This slight variation of .5% was pointed out by Mr. Magill as being of some significance when one considers that 3643 grade cases were included in the study. The conclusion is that:

"Those freshmen who had vocational agriculture in high school performed as well if not better than those from the same kind of school who had taken no high school agriculture."(36)

This study presents considerable additional data that would tell a similar story in comparing the performance of agricultural students in all subjects taken in college.

Dr. O'Shea states in his report to the Education Commission of Virginia that vocational agriculture should be extended as rapidly as possible, to the extent that every farm boy in the state may have an opportunity to study modern agricultural science and methods if he is desirous of doing so.(24) With this and other supporting information in regard to vocational agriculture, there should be no hesitancy in making the course available to every boy in Virginia.(18)(37)(38)

Commercial Courses

Only four out of the twenty-five schools offer business courses to any extent. Several of these schools are located in small villages that should

make this work desirable for boys and girls who may, after leaving school, fill the odd jobs in the community rather than go to college, where the third and fourth year of Latin will be of service to them. This type of work will come nearer holding the attention of the boys and girls than Latin and French. None of the schools had a wide variation of offerings in the commercial work. Three or four subjects were all that could be found in any one school.(39) The lack of teachers and the small enrollments limited the scope of such courses. However, if these four could be put in reach of every boy and girl in Virginia, what an advantage that would be! Many of these courses are of untold value to students who would be unable to handle the more academic studies.

Trade and Industrial Training

Of the twenty-five schools there is not a single course that leads to industry or even an introduction to this type of course. In the greatest industrial town of Virginia where there is plenty of money to operate the schools derived from taxes on industry, there is no shop in the school. What an opportunity is being wasted! Most of these boys and many of the girls have no idea of going to college. They are only wishing and waiting to get old enough to earn some money in these mills. Why shouldn't the opportunity of learning more about the work in this community in which they live be offered those interested? They could take courses leading to the various jobs in the mills. They would, then, at least know more about the job they are fitted to handle and thereby demand a better wage. They would stay in school longer and derive more from their stay in school, where they would have an excellent opportunity to learn writing, drawing, mathematics, and other courses of study, while learning the trade.(40)

Trade and industrial training have been thought of in the past as courses for evening schools. There is much need for this type of instruction in the senior high schools. This would be practical only in schools serving industrial towns and communities.(41) O'Shea states that Virginia should increase its state appropriation for the maintenance of trade and industrial education to equal at least the subsidy derived from the Federal Government under the provision of the Smith-Hughes Act.(18) Bode says:

"The educational process will consider the child as the unit in learning, who will be given freedom and initiative in the building of concepts."
(26)

Industrial Arts

There were two schools which had some industrial art equipment, but no teacher had been provided and the schools did not contemplate providing a teacher in the near future. Industrial arts is defined by Bonser as:

"A study of the changes man makes in materials to increase their value to meet the needs, or the appropriate usage of products made, and of the social advantage and problems resulting from the making of these changes and products."(42)

The vocational aim has its place in practically all grades of the elementary school where children are capable of making wise vocational choice. The junior high school and the senior high school courses go into the more specialized or vocational side of this work. The courses are similar, yet more inclusive than the present shop course now offered in vocational agriculture. With the present trend of elementary education, a continual growth is expected in this type of teaching. This will be gladly welcomed as a stepping stone to the vocational curriculum, for the boy and girl, upon their arrival in high school.

The division of enrollment was taken by high school, sixth, seventh and primary grades. At the time it was felt that a junior high school would be introduced to organize the work and guide students vocationally into the senior high school. Since this may still be the desired outgrowth, it was decided to present them in this study. It was thought well to include in this study not only the elementary enrollment in the high schools studied, but also the enrollment in the other elementary schools. This information may be worthwhile in making a further study of the schools in these counties, and it is necessary in comparing the per capita cost of instruction.(43)

Twenty of the twenty-five schools were accredited by the State Board of Education. Five were not accredited due to lack of enrollment. When once a school is dropped from the list, the senior students, especially those who are thinking of entering schools of higher learning, go to the nearest accredited school. Thus, the class is reduced so that it is not profitable to offer the senior work. Although in many cases the very best of instruction is offered in these schools, the small number of students makes it economically unsound, thereby reducing the efficiency of the school. Taking the per capita cost of instruction in these five schools and comparing it with the average cost found in these counties, it is found that Purdy has a per capita cost of \$90.90; Burrowsville, \$53.95; Jarratt, \$126.00; Sussex, \$94.00; and Drewryville, \$71.53. The average per capita cost in this group is \$86.07 and the average per capita cost in all the schools in this group of counties is \$63.17. Thus, the cost is over \$23.00 per student more for training which is not up to the standard of the larger and better equipped schools.

Other variations in the per capita cost of instruction are significant. The range is from \$41.00 in Emporia High School, which is the central school

in the most completely consolidated county in the group studied, to \$126.00 in Jarratt High School. The average per capita cost of instruction in the counties studied ranged from \$54.00 to \$84.00. No accredited high school exceeded \$78.00, while three of the five non-accredited schools exceeded the top limit of \$78.00. The average for all counties was \$63.17. Some of these schools were held down due to their location. Instead of being spaced within the counties, they were located in the districts, and now with the county system of handling schools, these schools are too thick to expand due to lack of students. An example of this is Wakefield School, well located in the district, but very poorly located from the standpoint of the county. It is in the corner of Sussex County and only seven miles from three other accredited high schools. It would appear from this that the state should abolish county lines and set up larger units for administering the schools. The building program will continue for the counties as it did in the case of the district. This may necessitate a relocation of the schools, should a state wide program be adopted. There are a number of schools in this same position. Others from this group of counties are: Carrsville and Isle of Wight in Isle of Wight County; Dendron and Claremont in Surry County; Carson in Prince George County; and drewryville, Boykins and Capron in Southampton County. None of these can expect to become large schools, due mainly to their location, and also due to the fact that improved roads make the trucking of pupils more economical than the employing of teachers.

The per capita cost of instruction in the grades indicates the need for further consolidation here; certainly to the extent of the fifth grades, which should be a part of the grammar grades, rather than the primary, where they have been included in compiling this information. The per capita cost of

TABLE IV

ENROLLMENT AND PER CAPITA
COST OF INSTRUCTION BY SCHOOLS

County and Schools	Accredited		Enrollment			Per Capita Cost of Instruction	
	Yes	No	H.S.	6 & 7	Primary	High School	Grades
GREENSVILLE					AV.	\$66.00	\$18.00
Emporia	X		288	184	471	41.40	17.00
Purdy		X	11	31	73	90.90	20.00
Other Grade Schools					290		17.00
ISLE OF WIGHT					AV.	56.00	23.00
Smithfield	X		157	121	308	44.08	16.00
Windsor	X		81	75	256	58.56	15.00
Carrsville	X		54	51	140	63.09	16.00
Isle of Wight	X		51	36	179	57.91	19.00
Other Grade Schools					130		34.00
PRINCE GEORGE					AV.	59.00	33.00
Hopewell	X		710	166	1365	48.44	38.00
Disputanta	X		96	30	77	71.30	24.00
Carson	X		95	35	83	63.76	21.00
Burrowsville		X	23	21	64	53.95	26.00
Other Grade Schools					841		19.00
SUSSEX					AV.	84.00	32.00
Waverly	X		110	59	153	51.14	23.00
Wakefield	X		71	32	102	67.51	26.00
Stony Creek	X		62	46	102	54.95	18.00
Jarratt		X	30	41	99	126.00	21.00
Sussex		X	35	21	39	94.00	43.00
Other Grade Schools					114		41.00
SURRY					AV.	54.00	27.00
Surry C. H.	X		93	50	103	51.97	22.00
Dendron	X		68	57	104	61.54	23.00
Claremont	X		37	32	65	50.09	25.00
Other Grade Schools					45		31.00
SOUTHAMPTON:					AV.	60.00	23.00
Franklin	X		181	102	297	42.03	20.00
Courtland	X		134	55	125	43.76	27.00
Newsoms	X		93	63	207	59.00	18.10
Ivor	X		70	57	146	78.22	23.00
Boykins	X		58	55	139	67.77	25.00
Capron	X		53	54	118	72.17	25.00
Drewryville		X	29	40	111	71.53	19.00
Other Grade Schools					408		24.00
TOTALS	20	5	2690	1514	6754	\$63.17	\$26.00

instruction for the primary grade schools ranged from \$61. in the Patrick Copeland School in Hopewell to \$14. at Brink and \$42. at Yale; an average of \$26. for all grades in the schools of the counties studied.

CHAPTER IX THE COUNTY BUS SITUATION

A study of transportation problems by Roe Lyell Johns(44) and Table V give, in a very definite way, some interesting information on the job of transportation. A brief summary by counties may help to clarify some of the more outstanding difficulties.

Summary by Counties

The following summary takes the counties in order as listed in the study made of those schools for the session of 1932-1933.

Greensville County had eighteen contracted buses. The longest bus route was 32 miles and the county average route was 20 miles. The percentage of hard surfaced roads was 40.5. The buses transported 750 pupils at an annual cost of \$14,475. or a per capita cost of \$19.30.

Isle of Wight County had 25 county owned buses. The longest route was 30.4 miles, and the average county route 19 miles. The percentage of hard surfaced roads was 34. The buses transported 959 pupils at an annual cost of \$9788. or \$10.10 per pupil.

Prince George County had four, out of eighteen trucks, which were county owned and operated. The longest route was 46.8 miles and the county average route was 30.7 miles. The roads were 100% hard surfaced or soiled. The buses transported 630 pupils at an annual cost of \$11,070., or a per capita cost of \$17.17.

The city of Hopewell used one bus and street car service for 130 students. There were 301 students transported to the Woodlawn school by street

car. The per capita cost of transportation by street car was \$3.65. This figure was not used in the county average. Neither were the students counted until the final totals and average of transportation for all counties were obtained.

Sussex County had nine, out of twenty-two buses, which were county owned. The longest route was 50 miles, with a county average of 21.3 miles. The roads were 35.2% hard surfaced. The buses transported 612 pupils at an annual cost of \$11,781. or a per capita cost of \$19.25.

In Surry County, five, out of sixteen trucks, were county owned. The longest route was 45 miles and the county average 27.9 miles, not including two cars which were used. The roads were 43% hard surfaced. The buses transported 431 pupils at an annual cost of \$6769. or a per capita cost of \$15.70.

Southampton had a fleet of 38 buses, all county owned and operated. The longest bus route was 46 miles and the average county route was 26.8 miles. The roads traveled were about 75% hard surfaced. The buses transported 1593 pupils at an annual cost of \$11,843 or a per capita cost of \$7.44. This was the lowest per capita cost of transportation by trucks found in the group of counties studied. Superintendent J. J. Jenkins reports setting up in his budget each year for new transportation equipment, over \$3000. Including this, he figures the low cost of \$0.066 per pupil per day.

General Summary of Transportation

The problem of transportation, as found in these counties, may be further discussed in view of the fact that a little over 59% of these buses are county owned and operated. Eighty-one out of the 137 buses and cars used

TABLE V

INFORMATION ON BUSES BY SCHOOLS

COUNTIES AND SCHOOLS	COUNTY OWNED		CONTRACTED		ROUTES		NUMBER TRANSPORTED	ANNUAL COST	PER CAP. COST
	NO.	VALUE	NO.	VALUE	LONG	SHORT			
GREENVILLE:									
Emporia			10		14.5	4.5	410	\$ 8,715	\$21.25
Purdy			4		10	3	100	2,475	24.75
Brink			2		16	9	140	1,000	12.85
Claresville			2		15.5	6	100	1,485	14.85
TOTAL			18				750	14,475	
AVERAGE					14	5.7			19.30
ISLE OF WIGHT:									
Smithfield	9	\$2,550					356	3,692	10.37
Windsor	6	2,025					286	2,377	8.31
Carrsville	3	1,200					133	1,352	10.15
Isle of Wight	7	1,150					184	2,367	12.86
TOTAL	25	8,925					959	9,788	
AVERAGE									10.10
PRINCE GEORGE:									
Hopewell					Street Car		130	475	3.65
				\$250	10	10	26	486	19.44
Disputanta			4		23	15.4	128	3,249	25.38
Carson			4		16	11	110	2,340	21.27
Burrowsville	1	600	2		23.4	12.8	83	1,874	22.57
Prince George	1	800	1		16.9	16.8	109	999	9.17
Rives	1	800	2	350	18.9	7.6	142	1,792	12.62
Woodlawn					Street Car		301	1,095	3.65
	1	150			9	9	26	331	12.73
TOTAL	4	2,350	14	600			1,053	12,640	
AVERAGE					18	10			17.77
SUSSEX:									
Waverly	1	600	3	925	19	11	152	2,876	18.92
Wakefield	3	700			16	8	81	1,191	14.70
Stony Creek	1	600	3	850	14	8	128	2,440	19.06
Jarratt	1	500	6	1,300	16	3	123	3,522	28.47
Sussex	2	800			25	7	79	884	11.19
Homeville	1	600	1	100	8.5	6	49	886	18.08
TOTAL	9	3,800	13	4,125			612	11,781	
AVERAGE					16.5	7			19.25
SURRY:									
Surry C. H.	2	400	5	900	22.5	4	199	2,813	14.13
Dendron	2	650	3	950	20	11	153	2,813	18.38
Claremont	1	300	1	300	15.5	15	65	990	15.23
Bac. Castle			2		5	4	14	153	10.93
TOTAL	5	1,300	11	2,150			431	6,769	
AVERAGE					15.7	8.5			15.70
SOUTHAMPTON:									
Franklin	5				15	5	327	1,161	3.55
Courtland	6				16	9	315	1,611	5.11
Newsoms	7				11.5	9	275	2,477	9.00
Ivor	7				15	13.5	190	2,151	11.32
Boykins	5				23	11.5	160	2,304	14.40
Capron	4				18	12	185	1,001	5.43
Drewryville	4				12.5	11	141	1,138	7.36
TOTAL	38						1,593	11,843	
AVERAGE					16	10			7.44
GRAND TOTAL	81	16,425	56	5,925			5,400	67,296	
AVERAGE		\$381.97		\$237.	16	8.2	36.26		12.48

in transporting 5400 children are county owned. In and around Hopewell, 431 children were transported on street cars. The counties owning all their buses were able to save considerable money on transportation, according to the figures collected. However, it must be borne in mind that replacement of equipment was not considered in these figures. The average per capita cost was as follows: Southampton County, \$12.48 per pupil; Isle of Wight County \$10. per pupil; Surry County, \$15.70 per pupil; Greenville County, \$19.30 per pupil; Prince George County, \$17.77 per pupil; and Sussex County, \$19.25 per pupil. Prince George, Sussex and Surry counties own part of the transportation equipment. Greenville, with all hired buses, had the highest annual and per capita cost of transportation of any of the counties studied. The per capita cost was \$19.30. The next highest per capita cost was in Sussex; \$19.25 per pupil. This may be attributed to the large number of schools that have not been consolidated, as they still operate under the district system instead of the county system.

The average value of county owned buses was about \$145. more than that of privately owned and operated buses. This estimate of value was made by the superintendent in each case, for both privately owned and county owned buses.

It is interesting to note the length of bus routes by counties. The extremes were checked and it was found that the longest route was 25 miles each way a day, and the shortest three or four miles. Short routes were covered by privately operated cars bringing in a few children who were off of the regular bus routes. The shortest bus routes were six, seven and eight miles. There were a number of these, as the average of short routes for the group of counties studied was 8.2 miles, with the average of long

routes for the same group of counties standing at 16 miles. These trucks and cars transported an average of 36 pupils per bus per day. During the session of 1932-1933 there were 5400 children transported to the schools in the six counties and the city of Hopewell at an annual cost of \$67,296. and a per capita cost of \$12.48 per year.(44)

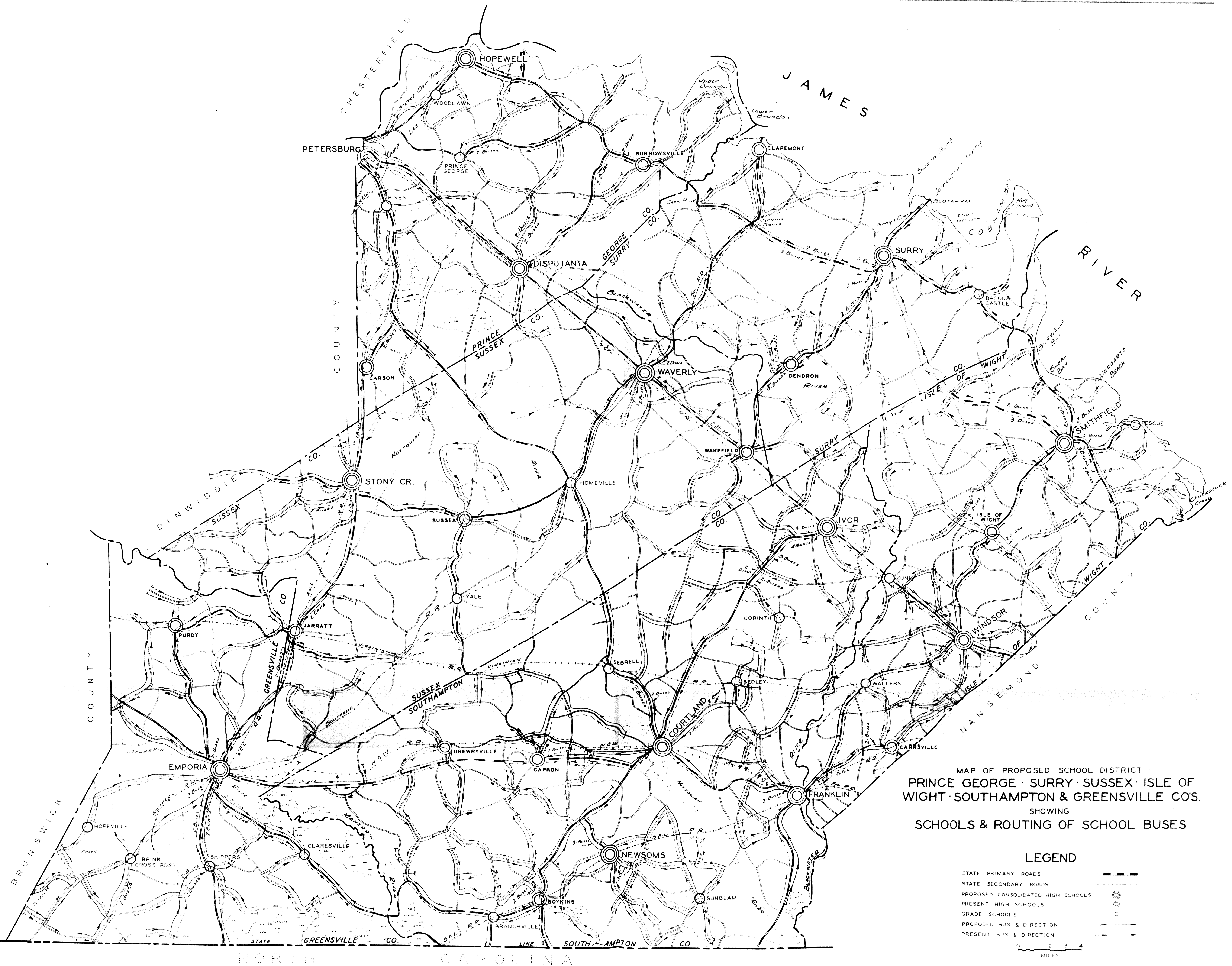
The following map of the six counties shows the present and proposed bus routes. The schools to which children are transported over these bus routes are indicated by arrow points. Where a bus serves more than one school, the line is continued through to the next school. The solid line indicates the proposed bus routes; the broken line, the present bus routes. The schools are designated by a single circle for grade schools, a double circle for present high schools, and a triple circle for the proposed consolidated high schools. The solid line indicates the proposed bus route along which pupils will be transported to the proposed consolidated high schools.

Conclusions

In brief, the findings seem to be as follows:

- a. The cost of transportation on street cars is less than half the cost of transportation on the cheapest bus.
- b. County owned buses are cheaper than those which are contracted.
- c. Gas, oil and supplies purchased on a wholesale basis reduce the cost of transportation.
- d. If bus routes can be lengthened and consolidated, some buses can be eliminated, thereby reducing transportation costs.

The counties owning and operating their own buses have been able to transport children at the lowest per capita cost. This has, in a large



MAP OF PROPOSED SCHOOL DISTRICT
PRINCE GEORGE · SURRY · SUSSEX · ISLE OF WIGHT · SOUTHAMPTON & GREENSVILLE CO.'S.
SHOWING
SCHOOLS & ROUTING OF SCHOOL BUSES

LEGEND

- STATE PRIMARY ROADS
- STATE SECONDARY ROADS
- PROPOSED CONSOLIDATED HIGH SCHOOLS
- PRESENT HIGH SCHOOLS
- GRADE SCHOOLS
- PROPOSED BUS & DIRECTION
- PRESENT BUS & DIRECTION



measure, been made possible by the purchasing of gas, oil and supplies at wholesale prices, and employing a mechanic to service the buses.

CHAPTER X PRESENT DAY TRENDS TO LARGER UNITS
OF ADMINISTRATION AND INCREASED SUPERVISION

Report of the Virginia Commission on County Government
To the 1936 General Assembly

Changes in units of administration are being advocated by the general public for economy's sake without due regard to the educational possibilities. For that reason those interested in the school should make a study of these conditions so that the education of youth may not suffer by a poorly devised or inoperative scheme of education that is likely to be thrust upon it by some ill-advised legislator.

The February 13, 1936, edition of the Richmond Times-Dispatch carried a detailed report of the Virginia Commission on County Government to the 1936 General Assembly. The Commission recommended the consolidation of 99 counties into 31 administrative units at an estimated saving of from 15% to 30% on cost of county government.

The per capita cost of instruction in cities was much lower than that found in the rural sections; yet the cities could boast of more higher paid teachers. In the State of Virginia, 6159 of the 13,000 white teachers were paid less than \$720. per year and 3190 were getting less than \$1000. per year. One thousand and nine teachers received a salary of from \$1500. to \$2000., and 289 teachers received a salary of \$2000. to \$2500. It is interesting to note that only 90 teachers, principals and supervisors drew salaries in excess of \$2500. to \$5000. per year. Sixty-nine of these were listed as being employed in the city schools, leaving 21 in the rural sections.

This further illustrates the fact that the smaller rural schools are neglected, since a large per cent of the higher paid teachers are in the city schools.

The Proposed Minimum Educational Program of 1932

The Virginia Journal, in discussing the proposed minimum educational program in 1932, showed that the State Board of Education was asking for forty dollars annually from the state for supervision of each group of 40 children in average attendance in the cities, and for each 25 in the counties. The Journal stated that supervision of instruction is an absolute essential in avoiding waste. It further stated:

"Scientific experimentation in education has proved that the supervision of class room instruction pays in insuring the progress of pupils and makes possible financial economies in eliminating retardation and the cases of pupils repeating the grades. It has been demonstrated over and over again in Virginia and in many other states that supervision repays many times its cost."

The Little Red School House

The Roanoke Times of July 17, 1933, carried an article by Bruce Catton, entitled The Little Red School House. This article referred to Owen D. Young's warning to the National Education Association, that we must bend every effort to get the little red school house off the scene. Mr. Young pointed out that the days of the little red school house found the cultural life of the nation centered in the cities. To the cities went the ambitious and energetic young men as soon as they finished at the red school house. He also stated:

"Today the wind of change is blowing over the land. New economic conditions foreshadow a decentralization of industry, of population and of culture. The small town is due for a rebirth. The old barriers that isolated it have banished forever. We will not get this change in country life without good schools. People will not move there or even stay there if the

educational facilities for their children are inadequate. The schools are the key which will unlock the country for modern living."

The Richmond News Leader of January 23, 1932, carried an article by Alfred E. Smith declaring the importance of larger rural schools being more generally recognized, and the state's solemn duty to develop a program of supervision. Mr. Smith stated:

"The supervision and administration of our smaller schools supported by the strength of a larger administrative unit will insure provision of a better type of school that will be comparable with supervisory programs of our big cities. No effective rural supervision will ever be accomplished until the unit is sufficiently large to insure effective service of this character."

"If we are to raise the standard of education, we must at the same time raise the standard of qualifications set for the teaching service. To bring this about, teachers should be adequately paid and fairly pensioned."

The Instructional Problem of the Small High Schools of Albemarle County

The plan of supervision recommended for the proposed school district is new. However, for the past eight years the Department of Education at the University of Virginia has, through the cooperation of the Albemarle schools, been conducting an experiment along this line. An interesting article by Professor E. E. Windes, entitled The Instructional Problem of the Small High Schools of Albemarle County of Virginia, is found in the November issue of the Junior-Senior High School Clearing House. (Page 146) (45) A more detailed description of this plan of supervision in the unit method of teaching may be found in Secondary Education in Virginia, Volume 13, No. 8, dated February 1929. (46) Albemarle operates seven accredited four-year high schools superimposed on a seven-year elementary school. The enrollment in the largest is approximately 125. The enrollment in the smallest of these schools is approximately 50 high school pupils. From three to five full time secondary teachers are available in each school and one itinerant teacher of vocational

agriculture is employed. There are available to the high schools on a part-time basis one general supervisor and five special supervisors of instruction. The high schools are located nine to twenty miles from the city of Charlottesville, which is the location of the superintendent's office.

The unit assignments are mimeographed and furnished to individual pupils. They give specific working directions for the unit made for the levels of mastery corresponding to marks A., B., C. and D. These units are worked out in tentative form by committees of teachers and submitted to the departmental supervisors, who work them into shape for mimeographing and distribute them to the teachers throughout the county.

The teacher-supervisors visit each school for occasional introduction of units of teaching, for conducting group exercises and for summarizing and generalizing at the close of a unit of work. Uniform mastery tests are administered at the close of each unit of work and comparative results distributed to the teachers concerned. During the development of the unit the pupils work individually from written assignments containing study guides. The teacher directs study and conducts such group exercises as seem advisable. Through this scheme, teachers direct two small groups at the same time without difficulty. Professor E. E. Windes states:

"The burden of planning is distributed. Plans are perfected by highly trained teacher-supervisors who are subject-matter specialists, and these plans reduce needed supplementary direction so materially that the classroom teacher has her work materially lightened."

"We do have objective evidence that the first effort of a teacher to use the unit plan results in increased instructional efficiency."(45)

Professor Windes does not in this article advocate further consolidation, as the supervisory method of putting over the unit plan of teaching in Albemarle County is the chief experiment. The writer feels that under

the proposed school district the cost of supervision may be reduced since it will be necessary that the salaries of supervisors be paid from the school funds. Under the experiment in Albemarle, the county school board pays for the transportation only. The salaries of supervisors are paid by the University as it is conducting experimental work in the county on part time basis.

Dr. A. L. Bennett, Superintendent of Albemarle Schools, in a letter of recent date, states that at present there are three men, one in social science, one in English and the other in mathematical science, who offer courses in the teaching of their specialty at the University. They teach two classes in the Lane High School in Charlottesville, where they have direction of practice teachers and give general supervision in the seven accredited high schools in Albemarle County. They direct units of work in the county and conduct meetings of teachers in their specialized field. Dr. Bennett further states:

"This arrangement has been in operation for eight years and has been very satisfactory and helpful to all concerned. Any county employing 30 high school teachers should, in my judgment, employ a supervisor or director of secondary education. You, of course, know that we employ three white rural supervisors, one of whom is specialized in primary work, another in grammar grades and the other in general supervision."

The three supervisors mentioned above are in addition to the three who work in specialized high school subjects in the county. These supervisors are on part time for the county and do this work in seven schools with enrollment of 50 to 125.

The proposed school district will be composed of 12 high schools with the enrollment ranging from about 100 to 300 pupils. The district has one city school of 700, which represents the extreme. However, this should be

sufficient to keep five supervisors on full time. In this way their duties and responsibilities can be greatly increased over those in the Albemarle County experiment. If supervision is successful on a part time basis there should be no question about its becoming more successful on a full time basis.

A Unique System of Education that Works

H. S. Randolph describes a unique system of education in the October, 1932, issue of Mountain Life and Work.(47) During the past five years there has been a deliberate attempt to organize the Ashville Farm School on a thorough going progressive basis. The school is located on a large farm twelve miles northeast of Ashville, North Carolina, in the valley of the Swannanoa River. It was founded in 1894 by the Woman's Missionary Society of the Presbyterian Church in U. S. A. and has operated continually since its beginning. Its fundamental purpose of rendering an education to the under-privileged boys of the southern mountains has been unchanged during these years. However, the method of approach and organization has constantly changed in an endeavor to meet the changing conditions of the mountain people.

It has been turned into a school without classes, courses, curriculum, examinations, or credits, that depends not upon the formal or standard approaches or approvals of current or traditional education. Instead it bases everything upon the child's evolving personality and strives to keep that personality ever blooming and growing with new-found interest and activities. This cannot be realized in a day, but requires months and years. Such a change comes not by revolution but by progressive changes rationally controlled.

A detailed study of this problem revealed a group of children from under-privileged homes, from rural areas in the mountains. The average

student was an educational delinquent with an average chronological age of 18, and he was just beginning high school work. The mental ability varied greatly, ranging from a very low to a very high intelligence quotient. It was discovered that the average student would stay less than two years as he would need to return home for economic or other reasons. Only one of every half-dozen would be graduated from Ashville Farm School or any other high school, and less than half of the number graduated would ever attend any college.

This school must be basically vocational. It would need to provide vocational training along those lines which would enable the student to earn his own living whether he continued in or out of school, whether he completed a course of study or not, or whether he was graduated or not. He must continue to live. The school had two years to give him the fullest and richest experience possible to help him meet his personal life experience regardless of his intelligence and educational quotient or his classification index. In the third place, the student's life could not be so enriched by following a set of standardized curriculum. Instead, each student must be studied to estimate his abilities, qualities, interests and enthusiasms. Thus his individual curriculum must be forged, different from the curriculum of every other student in the school. The student would be allowed to follow his own genius at as rapid a pace as possible.

Here the students own genius has been allowed to blossom for the first time regardless of what he was doing. He learned to read and write and to do arithmetic. He delved into the fields of agriculture, business, decoration, English, foreign languages, health, landscape engineering, mechanical engineering, music, physical education, printing, religion, science,

social science and woodworking; not for the sake of the subject or its mastery, but because in the subject matter were discovered facts essential to the solution of his individual life problems.

This type of instruction has made necessary an advisory system to each individual student. In studying his problems he spent much time in the library, laboratory, and the field or shop, under the guidance of an efficient instructor in this field.

It is at once apparent, says Mr. Randolph, that the achievement of such a student under such a system cannot be adequately measured by any of the standard measures or tests yet devised. However, available measures have been used by the school to help check the method and determine student achievement. Mr. Randolph states:

"These have been used with gratifying results in every instance, and it has been discovered that the students have achieved far more than the average under the old system."(47)

Standard achievement tests for high school students were given to all students on February 2, 1932, and again on May 19, 1932. This span of time was equivalent to one semester's work. The results indicated an average of 1.01 in the four subjects tested, while the standard average gain over the county at large was 0.5. It may be said, that this system resulted in twice the average standard achievement. The tests were not made on all subjects. Literature, mathematics, natural science and social science were the studies tested. The strictly vocational subjects were not tested, and this is the basis of their curriculum. Here is a plan that is operating successfully, according to Mr. Randolph.

PART III PROPOSALS AS TO THE HIGH SCHOOL PROGRAM

CHAPTER XI RECOMMENDATIONS FOR THE PROPOSED SCHOOL DISTRICT

Application of the Study to Remainder of the State

The writer feels that the counties of the state may be divided into twenty districts or administrative groups to take the place of the county division that is now in operation. The division, of course, will have to be based on the topography of the counties, the agricultural and industrial development, density of population and school enrollment. Each of the school districts would have the same general set-up as the proposed school district with modifications to fit the particular district.

This study has been made, using six counties in southside Virginia because this area is large enough to make an efficient school district and the agricultural and industrial development will call for an enriched curriculum. The good roads and general topography make it possible to consolidate the schools into larger units. The findings here may be applied to the other school districts with the application of this system to the territory involved. The recommendations below are made for the district studied and not for all such units in the state, although they may, in general, be applied to the other school districts.

Official Personnel of the Proposed School District

The official personnel of the proposed school district will consist of:

1. Division Superintendent, who will be the official head of the proposed school district.
2. Supervising Principal or Assistant Superintendent, who will coordinate the plans of the Superintendent in the district.
3. Five supervisors who will work with the teachers in the class room.

The number and kind of supervisors will vary according to the curriculum offerings, and the number of teachers and students with whom they will work. For the proposed school district they should consist of one for the primary grades, one for the grammar grades, one for language and social studies, one for science and mathematics and one for vocational subjects. It is the writer's opinion that a vocational supervisor should be employed in each district where there is a sufficient number of vocational teachers in home economics, agriculture, industrial shops, business administration and industrial arts.

4. Teaching-principal, who will be the official head of his school, without the obligation of supervision that is now his unused delegated authority.

5. School board members, who should be chosen on the basis of school population. However, they may be continued as in the present; one from each magisterial district in the counties represented. This is a problem which can be easily solved by those in authority if and when the necessity arises.

Duties of the Officials

1. In general the duties of the superintendent will be:

a. To contact the State Board of Education and act as administrative head of his district.

b. To contact county officials and inform the people of the program and policies.

c. To make up budgets and be responsible for the necessary reports required by the State Board of Education.

d. To purchase and distribute all supplies and books.

e. To pass on eligibility of teachers and appoint same after

receiving the appropriate recommendation from the principal and supervisors.

f. To handle problems of consolidation and transportation that occur in his district.

g. To conduct meetings of supervisors and principals. The superintendent should hold meetings of his staff of supervisors and principals to set up policies and organization which will result in a more efficient program of education for the district.

2. In general, the duties of the principal or assistant superintendent will be to head up the supervision for the proposed school district. One of the five supervisors may be given the title of supervising principal, whose additional duties will be:

a. To contact the principal and his assistant in an administrative capacity.

b. To be in charge of supervisors and to have the same responsibility in the field as the present division superintendent. However, he will take his authority from the district superintendent.

c. To see that the work of supervisors, principals and teachers is coordinated.

d. To be responsible for the general conduct of the educational program and schools in the district.

e. To conduct conferences and meetings of the supervisors, principals and teachers when necessary and in absence of the superintendent take over the responsibility of his office.

3. The general duties of regular supervisors will be:

a. To be responsible for the type of teaching and class room procedure.

- b. To hold conferences with teachers whom they supervise.
- c. To be responsible for rating and recommending teachers for re-employment.
- d. To help teachers plan and organize their work.
- e. To keep up close supervision on all teachers in their field.
- 4. In general, the duties of teaching principals will be:
 - a. To teach classes.
 - b. To be the official head of the school.
 - c. To conduct faculty meetings and be generally responsible for the conduct of his school.

5. The local school board will not be dealt with here. However, its present duties should remain the same except where consolidation of several counties into a school district necessitates a change.

Size of High Schools Desired

The high schools found in the counties vary in size. There are 10 schools with less than 60 pupils. Nineteen of the 25 high schools have less than 100 pupils. Only six schools have more than 100 high school students. A number of the schools falling in the class of the smaller high school, increased the per capita cost of instruction to a great extent. So for that reason if no other, they should be enlarged or closed and the children transported elsewhere. The expense, however, is not the main problem involved. The fact that the boys and girls in the smaller high schools are isolated from an enriched curriculum that is possible only in the larger high schools is of greatest importance.

The sizes of the schools will, of course, depend upon several factors, namely: density of population which involves the distance to be transported, sizes and types of buildings, geographical locations, topography, roads and

trade centers of students served. The small unit of instruction has been met largely by less offerings in the curriculum. In this way the smaller school may and has been kept in existence.(48)

In Secondary Education in Virginia XIV-No. 7, January 1930, page 8, Standards for Pupil Teacher Ratio and Teaching Loads, by James C. Harwood (49), it is stated that the New England Association of Colleges and Secondary Schools does not require any standards. The Commission on Secondary Schools of the Association of Colleges and Secondary Schools of the middle states and Maryland recommends 30 as the maximum number of students per teacher with five class room periods per day. The North Central Association of Colleges and Secondary Schools and the Northwest Association of Secondary and Higher Schools recommend 25 pupils with five class room periods per day, and 30 pupils as the maximum.

The following are maximums that must not be exceeded if the school is to maintain its position on the lists of Associations of Colleges and Secondary Schools: (a) Teacher-pupil ratio, 1-30. (b) Six classes per teacher per day. (c) 160 student hours per day for any academic teacher.

A teacher-pupil ratio of one to 25 or 30, with five classes per day and 150 student hours per day seems to be most universally used.(49)(50)

With the above in mind one may deduct that a school offering academic courses, vocational agriculture, home economics, commercial courses, industrial arts and other industrial courses should have a school of at least 150 high school students in order that each teacher may have 25 to 30 students in each of her classes for the sake of economy. The ideal size for a school is 200 to 400 high school students. The immediate objective should be to consolidate into schools of 150 or more students with a

minimum of 100 students.(51) While it will be hard to consolidate the schools to this number of students, in most cases consolidation to the point of 100 to 200 students may be affected, which will allow enrichment of the curriculum as well as reduction of per capita cost of instruction.

A report on the Iowa Schools in 1925 showed the per capita cost of instruction to be 45% more for the schools with an enrollment of 25 to 50 in comparison with those with 100 to 200 students. It also showed the lowest per capita cost of instruction to be in schools of 200 to 400 students. It further indicated that the schools with less than 50 students restricted their program of studies to the college preparatory classes. All students studied approximately the same thing regardless of their abilities or interests in life. A large per cent of schools with less than 75 students offered a restricted program of studies.(52)

This was found to be true with the 13 schools consolidated in this study. Five had a strictly academic curriculum and four others had a class in vocational agriculture twice a week. The other four had vocational agriculture on full time or part time, with home economics on part time.

Curriculum Offerings

Only the vocational curriculum will be dealt with here.(53)(54) However in administering the vocational phase of the curriculum, the writer realizes the necessity for some changes to serve the best interests of all concerned. (21)(55) It is intended that the new state course of study be followed in respect to all subjects. However, the vocational phase of the proposed curriculum is to be enriched.(56)(54)

The introduction of the necessary vocational subjects, so that each boy

and girl may be better prepared vocationally, and thereby better equipped for life, regardless of his undertaking after leaving school, is an object of this study. Therefore, it is necessary that each boy and girl be allowed to study the major vocations found in his community. The writer feels that no sex restrictions should be put on these vocational courses. There are quite a few girls who could profit by a good course in poultry, dairying, gardening and the like. Such courses would be especially beneficial to those girls who will later become farmers' wives. It would also be well for young men to secure some training in home economics, first aid, care of the home, interior decoration and care of foods and clothing; thereby gaining an appreciation of the duties and responsibilities of the opposite sex. Then, since this is an agricultural district, home economics and vocational agriculture should be put into the curriculum of every high school in the proposed district.

Industrial arts may be likewise added to each school. This course would serve as a course in vocational guidance in the junior and senior high school, as it may be taught on practically any grade level and include all types of vocational experiences. Or, it may be added on the vocational basis in accordance with the need of the community.

Commercial courses should be included in each high school in the proposed district. The subject offerings should, however, depend upon the demands of the students and the needs of the community. Those most generally used are bookkeeping, short hand, typing, business arithmetic, and business science.

General shop instruction may be offered by all of the schools if there

is a demand for this type of instruction on the part of students. This offering, no doubt, will fit into almost any community. An experiment in this work is being attempted in the Wakefield High School for the session 1936-1937. This was the outgrowth of interest manifested by a civic organization, the Wakefield Ruritan Club, which demanded an enriched curriculum to take care of boys and girls. Commercial courses were added last year. Home economics and vocational agriculture have been taught for some years in the school and commercial courses were introduced in 1935-1936.

Industrial or trade courses could be offered in two of the schools in the proposed district, if the students demanded them. The schools are Emporia and Hopewell. These courses would be in accordance with the demands of the particular industry found in the two towns, after careful study on the part of educational officials in cooperation with the industries represented. It is likely that the school at Franklin may wish to investigate such offerings.

In a general way, the vocational program as outlined above would take care of the schools in the proposed district and should be wide enough in scope to cover any district in the state after being altered to serve the territory represented.

CHAPTER XII DISCUSSION OF RESULTS

Change in Enrollment by Schools and Summary of the Findings

The change in enrollment of the 12 high schools left in the school district will be considerably increased by the consolidation of thirteen high schools or 54.23% of the present high schools. The enrollment, after consolidation, is an estimate due to the change in routing of buses and

TABLE VI
ENROLLMENT BY SCHOOLS
BEFORE AND AFTER CONSOLIDATION

SCHOOLS	BEFORE			AFTER		
	Primary	6th and 7th	High School	Primary	6th and 7th	High School
Emporia	471	184	288	510	220	325
Purdy	73	31	11	73	20	0
Smithfield	308	121	157	340	150	175
Windsor	256	75	81	256	80	110
Carrsville	140	51	54	120	40	0
Isle of Wight	179	36	51	140	30	0
Hopewell	0	166	710	0	166	710
Disputanta	77	30	96	85	35	160
Carson	83	35	95	83	35	0
Burrowsville	64	21	23	64	21	0
Waverly	153	59	110	173	66	175
Wakefield	102	32	71	120	50	0
Stony Creek	102	46	62	116	57	215
Jarratt	99	41	30	80	30	0
Sussex	39	21	35	50	35	0
Surry	103	50	93	105	50	190
Dendron	104	57	68	95	55	0
Claremont	65	32	37	75	40	0
Franklin	297	102	181	320	112	205
Courtland	125	55	134	130	65	165
Newsoms	207	63	93	230	85	160
Ivor	146	57	70	170	70	100
Boykins	139	55	58	140	55	0
Capron	118	54	53	80	25	0
Drewryville	111	40	29	90	30	0

lack of information as to the exact location and number of high school students transported on each bus. However, the probable error will not exceed 20 pupils for each school, which may be taken care of by the normal fluctuation expected in the high school enrollment from year to year.

Table VI, showing school enrollment before and after consolidation, indicates that it will not be necessary to add any grade teachers since the increased enrollment will be well distributed. Due to the change in bus routes it has been possible to close two one room schools in this plan for consolidation. The school at Zuni in Isle of Wight County, employing one teacher, and one of the two teachers at Bacon's Castle in Surry County, can be eliminated at a saving of \$1450. The Hopeville school in Greenville County can be closed at a saving of one teacher who may be shifted to the Emporia School. These savings or changes will not be considered as a part of this study. However, they may be used to take care of any unforeseen overcrowding caused by the proposed consolidation.

It was also found that several other grade schools may be closed by the addition of buses. No doubt, in most cases, the fifth and sixth grades can be consolidated further and the sixth and seventh grades transported to the high schools. The Homeville school, in Sussex County, with 21 pupils and two teachers, should be transported to Waverly with an estimated saving of 50% of the present cost of operating this school. It would be more desirable and no more expensive to transport all pupils of junior high school age to the consolidated schools. Further information was not secured as this study does not include the junior high school plan.

Of the 25 high schools found in the proposed district, 20 were on the state accredited list. Five had been dropped due to lack of enrollment

and other standards set up for accredited schools. These five schools, along with eight others, will be consolidated as indicated in Table VI, or 13 of the 25 schools will be consolidated. The enrollment found in those schools to be consolidated ranged from 11 to 95, which represents the two extremes. Others ranged from 23 to 71, giving an average of 47 students.

The 12 remaining schools have an enrollment of 100 to 710 students. Omitting Hopewell, with 710 students, which is in reality a city school, the remaining schools have an enrollment of 100 to 325 or an average for the 11 schools of 180 high school students. These schools can absorb the increased enrollment with their present buildings and equipment, with the following exceptions: Disputanta with an increase of 69 high school students, Surry with an increase of 97 students, Newsoms with an increase of 67 students and Stony Creek with an increase of 57 students. Each of the above named schools will need a new high school building and possibly two additional academic teachers and an additional laboratory. The 12 schools will need a set of teachers and equipment to carry on the vocational phase of the curriculum as planned.

By means of consolidation, 40 high school principals and teachers will be eliminated at a total saving of \$46,923.

The truck routes worked out pretty well, leaving five buses and two cars to be eliminated with an increase of 20 bus miles per day and a decrease of 60 car miles per day. Since the car miles exceeded the bus miles three to one, and due to the possibility of error, the writer feels that no question should be raised about the problem of transportation other than to state that the change in bus routes has taken care of the

increased transportation made necessary by the proposed consolidation of high schools. It may be further stated that these routes, in practically every case, can be held to less than 25 miles each way, which was the extreme found in the original set-up. However, under the re-routing, the short routes will be eliminated so far as possible, thereby increasing the length of many bus routes. Short back tracking can be eliminated, where practical.

Tuition for students transported across county lines and to adjoining city schools has not been tabulated due to the fact that the counties can overcome this expense to an extent by the proposed elimination of county lines.

Comparative Cost of the Proposed Program

In making such a comparison, it should be borne in mind that only a general comparison can be had, as making a definite decision on the phase of the vocational curriculum to be added, or the number of courses offered, could not be determined until the classes were organized and a more detailed study made of each community. It will be advisable, no doubt, in some of the schools to offer many of the courses on a part time basis, similar to the system used by many of the vocational agriculture departments, where the same instructor teaches in one or more outlying schools. These changes in the curriculum will make the cost of the program vary from district to district.

There has been a saving of \$46,923, which will go a long way toward furnishing instructors for this enriched curriculum. In addition, there will be a saving involved in closing five superintendents' offices, which includes not only the superintendents' salaries, but the salaries of their

secretaries and other office expense, which amounts to approximately \$18,000 or a total of \$65,000. saved. The salary and expense of travel incurred by the superintendent would be commensurate with that of the supervisors. The supervisors or subject matter specialists would not demand the salary paid a superintendent. The number of secretaries may be reduced 50%. Travel will be a necessary evil; yet this may be held down to two cars to the district for use of high school supervisors. At the time of this survey, three of the counties were employing a supervisor for the grades. Therefore, no grade supervisors will need to be added to this list of expenses. This is also true of the office of the superintendent. The assistant superintendent will have a salary of \$3000. The three high school supervisors will demand a salary of about \$2400. each, or \$7200. with other office expense. The secretarial help and cost of transportation will amount to approximately \$1800. or a total of \$12,000.

The additional cost of vocational agriculture need not be considered as there were 10 instructors employed when the survey was made, which is enough to offer a four year program in each school. The same instructors could extend this offering to only half of the students under the present arrangement, but they could extend it to all of the students under the consolidated plan.

In home economics there were only nine teachers employed at an average annual cost of \$7144. Two of these teachers were found in the Hopewell school. Other large schools may demand two teachers, while smaller schools like Ivor and Windsor could employ one teacher. To increase these to one for each school or four teachers, \$1200. per year would amount to \$4800.

The commercial courses are now found in four of these schools. Hopewell

again has the privilege of having three such teachers out of the six employed, at an average salary of \$1064. To provide one for each school without a commercial teacher would mean an increase of eight at \$1200. each per year or \$9600.

Industrial arts may be added to the schools. Although there were no teachers found, some schools listed industrial arts equipment. Should this course be added it should be introduced gradually, starting with the larger schools. Six teachers will be included here which will serve one-half of the 12 schools, at an annual salary of \$1200. each or \$7200.

General shop instruction was not given by any of the schools. However, one or two schools since have experimented with this type of thing. It is true that all vocational agricultural instructors have courses in farm shop which may account for the apparent indifference toward a similar course in the same school. Twelve such instructors, one for each school at an annual salary of \$1200. would make a total of \$14,400.

Industrial courses were not found to be offered in the present school curriculum and would, if introduced, be an experiment on the part of the school making the offering possible. The writer feels that the interested industry served can be induced to contribute in a material way to this type of education. They would no doubt contribute equipment and material if not capable mechanics for instructors. The writer would prefer this type of course to be carried on in an experimental way at the Hopewell school which serves the greatest industrial center of Virginia, if not of the south. These industries are varied and may in time require considerable equipment and several instructors. An allowance of at least \$2000.

should be made to introduce this type of instruction for teacher and supplies. This brings the grand total of increased salaries to \$50,000. for the new proposed enriched vocational curriculum, while \$65,000 has been saved in salaries by consolidation. These salaries have, in each case, been figured at an increase over the present average salary. Twelve hundred dollars was used in each case, which should be the minimum salary paid a college trained and otherwise qualified teacher.

The survey indicated that the average cost of equipment for vocational agriculture was \$436. for each school offering the course. Since this equipment will not have to be materially increased and no additional instructors are needed, no additional funds will be called for.

Of the 10 schools teaching home economics, the average cost of equipment was listed at \$487. per school. Only four teachers were added in this department and due to 10 of the schools being equipped, it is felt that \$1000. will be sufficient to purchase additional equipment.

Of the four schools giving commercial courses, one of these schools had three teachers and considerably over half of the equipment. Since the greater part of this equipment consisted of typewriters, this average was secured on a basis of teachers rather than schools. This average was \$712. Since eight of the schools are to purchase this equipment, \$5,600 has been considered sufficient allowance.

The two schools reporting industrial arts equipment valued it at \$100. and \$500. or an average of \$300. If this work is introduced with a full-time teacher in only six of the largest schools, some equipment should be supplied regular teachers in other schools. Then, \$2000. will not be too much to allow for same.

The equipment for the general shop course will no doubt be the most expensive, and it may vary in cost from \$300. to \$800. or more. However, an allowance of \$500. per shop should permit a moderate offering, and if this course is introduced in the 12 schools, a total cost of \$6000. will be added.

Industrial and trade courses may be financed so far as material and equipment are concerned by the industry in which courses are offered. This would be found in a very few schools in the state and should be figured as an additional expense. No cost will be added here as it is planned for the Hopewell school only. Since a number of industries are located there, one or more of these could be found which would no doubt cooperate in this experiment to that extent.

Summary

The cost of the enriched vocational curriculum may be summarized as follows:

1. The salary of the superintendent can be taken care of by the saving from the closing of five superintendents' offices instead of six.

2. A salary of \$3000. was proposed for the assistant superintendent.

3. The three high school supervisors were figured at \$7200., with \$1800. for secretarial help and transportation for that office. This makes a total of \$12,000.

4. The expenditure for teachers and equipment is as follows:

COURSE	No.	COST	EQUIPMENT	TOTAL
Vocational Agriculture	0	0	\$400.	\$400.
Home Economics	4	\$4,800.	1,000.	5,800.
Commercial	8	9,600.	5,600.	15,200.

Course	No.	Cost	Equipment	Total
Industrial arts	6	\$7,200.	\$2,000.	\$9,200.
General shop	12	14,400.	6,000.	20,400.
Industrial	1	2,000.	0	2,000.
TOTALS		\$38,000.	\$15,000.	\$53,000.

The grand total, including assistant superintendent, supervisors, and teachers will be \$65,000.

5. From this it can be seen that this enriched vocational curriculum may be had at no additional expense. In addition, after the first year, there will be a saving of \$15,000. that can be set aside for purchasing additional equipment.

CHAPTER XIII FINAL SUMMARY

Vocational Trends in Education

1. Primitive education had little value other than adjustment to environment, preservation of man and continuance of the races. Early education did consist of training for protection and to fit the youth for life's work. While education at times deviated far from this principal, each change was toward preparation for life and service to the state.

2. The Greeks demonstrated through education and training that the individual and country may be developed.

3. The Monastic education was the first to take a vocational slant.

4. Toward the close of the middle ages one finds the medieval universities and the rise of industrialism with workmen setting up standards and teaching the trades.

5. The Past Royalist in 1555, held that "Reasoning is more important than memory".

6. The first real attempt at public education in America was found in the Massachusetts Act of 1647, but not until 1900, was there any development of education in comparison with the progress of the state.

7. In the nineteenth century the academy came to the front. Its purpose was to provide preparation for college and training for life. The high school followed the academy. The first one was established in Boston in 1821. Its function was to provide preparation for life, but the additional function of preparation for college was soon assumed. Commercial subjects were the only non-academic classes offered. The growth of the high school was rapid and in 1890, it was considered the dominant type of school. The entire population is now in reach of free public high schools with compulsory attendance laws in effect for children from seven to fifteen years old.

8. The idea that the secondary school was primarily a preparatory agency for the college was held until about 1910.

9. Since 1900 there has been considerable broadening within the high schools by the addition of commercial work, vocational agriculture, home economics and industrial shops.

10. The report of the Commission on the Reorganization of Secondary Education in 1918 advocated, "Such reorganization that secondary education may be defined as applying to all pupils of approximately 12 to 18 years of age". Since 1918 there has been a general acceptance of this attitude in planning the program of secondary education.

11. The intent of vocational training of all kinds is to prepare the boy or girl for the solution of the problems of adult life. Since the desire to use tools is instinctive, it has been found to be the easiest way to learn.

12. The lack of vocational training is due to the inability to offer it under our present school organization. By lack of vocational training the non-academically minded pupil is being neglected, because he is practical instead of theoretical. No doubt failure to meet the needs of the practical minded boys and girls is largely responsible for the failures in the Virginia schools. Only 10 per cent of those who enter the primary grades are graduated and one-third to one-half of the students drop out between the seventh and twelfth grades.

13. Improved supervision and guidance are being emphasized by school officials and others. Already a general reorganization of the curriculum is under way and change in the administration of the secondary school is being discussed.

14. The study made of the curriculum by the State Board of Education, under the direction of Dr. Sidney B. Hall, and shaped under the guidance of the various colleges of the state, gave the teachers and others an opportunity to approach in an analytical way the subject matter in the Virginia course of study. It is obvious that certain understandings were reached, such as: a. The child is to be taught rather than subject matter, and, b. Education is a selective matter and should be a collection of happenings in the past that are most likely to fit the child for the society in which he will live in the future. Educational objectives should be specific; should solve a problem of life; should reveal higher types of learning; and be made interesting to the students.

15. Investigation has shown that formal subject matter is not valuable to the extent it was once considered. Therefore, it would seem necessary to pursue subject matter for desired information only. Research has revealed

that the vocational subjects take their place with other subjects in preparation for college. Public opinion has grown more favorable toward a wide introduction of vocational subjects.

Interesting Findings in the Counties Studied

1. In the six counties in southeastern Virginia which were studied, the need for an enriched vocational curriculum, improved supervision and a general reorganization of the secondary schools, were evident. It must be borne in mind that organization of the high school and vocational guidance are major problems in successful administering of an enriched vocational curriculum.

2. There were a number of small schools in these counties with poorly equipped laboratories. A school of 90 pupils had laboratory equipment valued at \$30., while its neighboring school across the county line had a high school enrollment of 62 pupils and laboratory equipment valued at \$940.

3. The small town grade teachers were receiving an annual average salary of \$1245. while the largest school in the adjoining county paid its teachers doing the same work an average salary of \$722., or \$523. less per year. This was likewise true with the high school teachers. Those in the city school received an average of \$1314. while those in the county received an annual average salary of \$789., or \$427. less per year. In comparing teachers' salaries in county schools, they varied from \$769. to \$1012. per year.

4. In spite of the low salaries received by rural teachers, the per capita cost of instruction was higher in the smaller rural schools.

5. The curriculums of the schools studied were above average for the state, when the number of vocational subjects were considered.

a. All schools were meeting the minimum requirements set up by the State Board of Education.

b. However, three counties were enforcing additional requirements set up years ago by their county boards. The smaller the school, the less selectivity was found in its offerings.

c. The choice of elective subjects was based on the ideas of the principals and superintendents rather than the occupations in the community and demands of the students.

d. Offerings ran from seven and one-half to nine required units, and seven and one-half to 29 elective units.

e. The larger schools offered a larger number of elective units. Eight of the 25 schools were offering home economics; fifteen were offering vocational agriculture, with farm shop courses in 11 schools with full time agricultural teachers.

f. Only four of the 25 schools were offering business courses to any extent. Due to the small enrollment and lack of teachers, only three or four courses were offered. There were no courses offered that lead to industry, nor was there any shop instruction offered in the industrial town of Hopewell.

g. Two schools possessed some industrial arts equipment, but no teacher had been employed lately, nor contemplated in the near future. With the present trend of elementary education we should expect a continual growth in this method of teaching.

6. Twenty of the 25 schools studied were accredited. Five schools were not accredited due to lack of enrollment, which made them less efficient and economically unsound.

7. The per capita cost of instruction in the five non-accredited schools as compared with the average found in the counties proves the statement made above. The average per capita cost for the non-accredited schools was \$86.07 as compared to an average of \$63.17 for all schools in these counties. Thus the per capita cost in these five schools is \$23. more per pupil and the training is not up to the standard of the larger and better equipped schools. The lowest per capita cost of instruction was \$41.00 in the Emporia High School, which is complete in its consolidation.

8. Transportation of children is a major problem of the rural school.

a. It was discovered that 59% of the 137 buses were county owned and operated.

b. The per capita cost of transportation by street car was cheapest; being only \$3.65, while the per capita cost in the counties, averages \$12.48 per year.

c. The lowest per capita cost of transportation by buses was found in Southampton County where the county owned and operated its thirty-eight buses at a per capita cost of \$7.44. This cost ranged from \$7.44 per pupil to \$19.30 per pupil in Greenville county where all buses were contracted.

d. The longest routes were six to eight miles. Individual cars hired by the school boards operated over four to five mile routes.

e. The average of all short routes was eight miles each way and the average of long routes was 16 miles.

f. The excessive number of short routes and distances over which many pupils were transported to schools in their county was largely responsible

for the high cost of transportation.

g. This, of course, was forced on the county, as it must furnish the transportation or pay tuition to the adjoining county.

CHAPTER XIV RECOMMENDATIONS

Personnel

1. It is recommended that the State Board of Education employ a well qualified person, who is unbiased, and who will not succumb to political pressure, to study the schools of the state and make a survey of all rural schools, bus routes, equipment and school centers that should be established.

2. This survey should be made with the idea of finally dividing the state into 20 or 25 school districts based on the topography, density of population, school enrollment and agricultural and industrial development.

3. It is recommended that the best qualified superintendents be employed or transferred to the positions of district superintendent and assistant superintendent.

4. The remaining superintendents should be transferred, or a sufficient number of persons employed, as supervisors for the high schools. These should be subject matter specialists, well trained and carefully selected for supervision.

5. There should be one supervisor for primary grades and one for the grammar grades, or more if needed. The regular principal should function as he does today in full control of his school, without the duties of supervision, but he should teach two or more classes daily in his field of training.

Consolidation

1. Where the density of population, topography and roads will permit, high schools should be consolidated into schools of at least 150 to 200 students.

Some may be larger, as the per capita cost of instruction is less in schools of 200 to 400 students. So far as it is possible care should be exercised to avoid transporting children out of their trade center.

2. With respect to transportation, it is recommended:

a. That transportation on street cars be given consideration where possible.

b. That the district or county own and operate buses.

c. That where roads will permit, larger buses continue their routes to the consolidated schools, thus taking the place of additional buses.

d. That the state or county purchase gas and oil at wholesale prices.

e. That a mechanic be employed to service buses where and when it is practical.

3. In considering this consolidation, it must be borne in mind that teachers should not be overloaded or underpaid.

a. A teacher-pupil ration of 25 - 30 pupils with five classes per teacher per day or 150 student hours seems to be most universally used.

b. Teachers should be employed for twelve months and required to be on the job at least two weeks before school opens and remain two weeks after it closes, and attend short courses in keeping with her work.

c. A salary scale should be set up and the teacher paid on a basis of her educational qualifications, experience, and ability.

d. The minimum salary should be enough to support a teacher for 12 months and should be in keeping with salaries paid for similar work and qualifications.

e. In figuring the salaries for teachers to be added in the proposed school district, \$1200. was used.

Curriculum

1. It is recommended that the new curriculum be changed only so far as is necessary to make possible the efficient administering of the vocational phase of the curriculum.

2. Each boy and girl should be given an opportunity to pursue studies in the major vocations found in his community.

3. Vocational courses that should be presented in all rural schools are: a. vocational agriculture, b. home economics, c. commercial courses. Other vocational courses that should be offered in many schools are: a. general shop course, b. industrial arts, c. industrial and trade training. This enriched vocational curriculum will be made economically possible by and through further consolidation.

This plan of consolidation showed, in addition to the enriched vocational curriculum and improved supervision, a saving of \$15,000. for the six counties comprising the proposed school district. The \$15,000. can be used to purchase additional equipment. In future years it should be applied to the salaries of the underpaid teachers to help bring their salaries in line with those allowed for the teachers added. It has not been determined whether or not the \$15,000. will be adequate to do this as salaries have been considered only in light of the need for salary adjustment, efficiency and good business.

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