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A Study of Certain Selected Factors Related to Withdrawals

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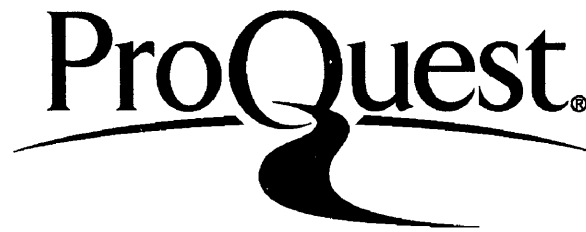ProQuest Number: 10614717

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CHAPTER I

THE INTRODUCTION

In a country in which we have committed ourselves to a philosophy of education which is based upon a fundamental belief in democracy, we must accept the fact that every individual has value. This means then, that no one in our society can be neglected. It means that every individual must be developed as far as possible, for democracy depends upon judgments made by the common people. In order that these judgments may be intelligent, the common people must be informed. For them to be informed, they must be educated. A democracy cannot be operated by an illiterate people; conversely, the better educated the people, the better democracy works.

For many years educational leaders have concerned themselves with the problems of those students who enter school and do not stay to graduate. Much literature has been written relative to it, and several plans have been offered to improve the survival rates in our public schools. Some of these plans have been initiated, but much is yet to be accomplished, for the survival rates in the public schools of our country are far from perfect.

I. THE PROBLEM

Statement of the problem. The present work was undertaken to make a study of some of the factors which are related to withdrawals in the rural high schools of Virginia, and to see what can be done to hold the pupils in school a longer period of time, and thus better fit them for the duties they must assume when they leave school.

Analysis of the problem. Out of the totality of elements present which might contribute to this problem, the study of withdrawals from the rural high schools of Virginia during the ten-year period studied was broken down into the following factors:

I. The extent of withdrawals.

    1. The percentage of withdrawals by counties.

    2. The percentage of withdrawals by years.

II. Factors related to withdrawals.

    1. The percentage of attendance.

    2. The percentage of subject failures.

    3. The percentage of over-age students by grades.

    4. The percentage of students retained by grades.

    5. The percentage of the school census enrolled.

    6. The average teacher load.

    7. The percentage of students entering the high schools from feeder schools.

    8. The testing program in Virginia.

        A. The educational age of elementary students in

the feeder schools.

B. The educational age of the elementary students
in the high school plants.

9. The percentage of students transported.

10. The average annual per capita expenditure for in-
struction.

11. The socio-economic background of the counties.

Scope of the problem. This study was limited to a ten-
year period covering the years 1935-36 through 1944-45. The per-
centages of withdrawals for the one-hundred counties of Virginia
were worked out for this ten-year period and then averaged. The
ten counties with the highest average percentages were then select-
ed for one group of counties. In a like manner the ten counties
with the lowest average percentages were selected for another group
of counties. The study was further limited to include rural high
schools with white students enrolled. Through the study of the
above eleven factors in these two groups of counties, it was hoped
that an answer could be found to the question as to why some
counties have a high percentage of withdrawals and others have a
low percentage of withdrawals. As a result of this study it was
hoped also that recommendations could be made which would reduce
the number of withdrawals in all counties.

Significance of the problem. The percentage of Virginia's
population between the ages of five and twenty years who were en-
rolled in school in 1940, was 63.9 percent. The comparable percent

for the United States at the same time was 70.8.[1] Over the ten-year period studied there has been an average of 11.72 percent of the pupils enrolled in the rural white high schools of Virginia who have withdrawn from the schools during the school sessions. Over this same period there were enrolled in these schools about six hundred eighty-two thousand students in the grades eight to twelve, inclusive. This means that approximately eighty thousand students have withdrawn from the rural white high schools of Virginia during the school sessions. Over this same period there were enrolled in these schools about six hundred eighty-two thousand students in the grades eight to twelve, inclusive. This means that approximately eighty thousand students have withdrawn from the rural white high schools of Virginia during the school sessions over this ten-year period.

In our present day, and particularly since the last war, it has become increasingly necessary that we conserve our natural resources. In many instances steps have been taken by our Federal, State, and Local governments to set up and carry out the necessary plans to do this. It seems unnecessary, therefore, to emphasize the fact that our greatest natural resource is the growing generation who are enrolled, or who should be enrolled, in our public schools. The extent to which we are carrying out our basic philosophy to conserve such resources here in Virginia

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[1]Francis G. Lankford, Jr.: Opportunities for the Improvement of High School Education in Virginia. (Virginia State Chamber of Commerce, Richmond, March, 1944). pp. v-169.

is shown by the above figures, and implies that the secondary schools of Virginia are not wholly fulfilling their duties to the students entrusted to their care, nor to society in general.

Limitations of the study. During the school sessions 1942-43, 1943-44, and 1944-45 employment opportunities outside the school were very attractive; the appeal to enter the military services was great; and the migration of families to work centers caused large shifts in our population. For these reasons one may have the feeling that a study of withdrawals during this abnormal period would not yield representative data. This feeling is justified to a certain extent. For example, the number of withdrawals was greater over these years than normally, and consequently the percentages of withdrawals are higher for these years. The increase in withdrawals over these years, however, was about equal for the two groups of counties studied, and it was felt safe to assume that the actual withdrawals during these abnormal years included all the potential withdrawals during normal years.

It is also difficult to reduce the cause of withdrawals to any one factor, and it is very difficult to determine the extent to which any one factor might contribute to withdrawals from high school. It is the purpose of the writer to show that certain relationships do exist between a high percentage of withdrawals and the factors selected, and that relationship of a different kind exist between a low percentage of withdrawals and the same factors.

Procedure. In this study certain factors were selected, and the effect of each of the factors on withdrawals was noted through a comparative analysis of the data used. This was done through a compilation of data, obtained from reports on ten counties with a relatively high average percentage of withdrawals covering the ten-year period 1935-36 through 1944-45, and data obtained from ten counties with a relatively low average percentage of withdrawals covering the same period. The average percentages of withdrawals of each of the two groups of counties in the study were compared with data on each factor. Also the degree to which the factor occured in each group of counties was noted.

The relationship between a high average percentage of withdrawals and data for a particular factor, as the factor existed in the counties having a high average percentage of withdrawals, was noted. This relationship was compared with the relationship between a low average percentage of withdrawals and data on the same factor, as the factor existed in counties having a low average percentage of withdrawals. Through a comparison of these relationships, certain conclusions were reached relative to the effect of the factor on withdrawals from high schools.

Sources of data. The data for the study of these factors were obtained from the Reports of the Superintendent of Public Instruction of Virginia for the years 1935-36 through 1944-45; from the Reports of the Division Superintendents of the counties in the study, covering the same ten-year period as above; from the 1940 report of the United States Census Bureau; from the Annual

Reports of Officers, Boards, and Institutions of the Commonwealth of Virginia, for the year ending June 30, 1940; and from the Office of the Director of Research of the Virginia State Board of Education. Every effort was made to obtain data which it was thought might contribute to the factors studied.

Definition of terms. That misinterpretations may be avoided, certain terms used in this thesis were given the following interpretation:

1. Educational age:- A student's age equivalent based on his general achievement.

2. Feeder school:- An elementary school from which a central high school draws students for the high school.

3. Over-age:- A student who is at least one year older than the normal age for his grade.

4. Withdrawal:- Any student who drops out of school before the end of the school session.

Organization of the remaining chapters of this thesis. In Chapter II is found a general survey of literature significant to this study. Chapter III deals with the analysis of the data. In Chapter IV are found a summary of the conclusions, and recommendations.

CHAPTER II

SIGNIFICANT LITERATURE IN THE FIELD OF STUDY

I. General Survey.

One of the interesting details of this study was a review
of the work other investigators had done in the field. There
have been many surveys made in an effort to determine the extent
and the underlying causes of withdrawals. Some of these have
been very broad in scope while others have been localized to
individual schools. Some have been made in cities where the
community was highly industrialized; others have been carried on
in rural areas.

In the general survey of literature, the writer has
endeavored to give a cross-section of the entire field of study,
so that the reader might get a broad view of the work which has
been done in this field. Below is a brief survey of some of the
outstanding studies related to the extent of withdrawals from the
public schools, and the reasons for withdrawal.

Edward L. Thorndike,[2] who was then professor of Educational
Psychology, Teachers College, Columbia University, in 1907, made
an extensive study of the elimination of pupils from school. He
used data obtained from records in twenty-three large cities, and

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[2] Edward L. Thorndike, Elimination of Pupils From School.
(U.S. Bureau of Education, Bulletin, No. 4, 1907). pp. 7-63

which covered the period 1894 to 1896. Two of his outstanding conclusions were as follows:

1. Less than one in ten students entering the first grade graduate from high school.

2. One main cause of elimination is a lack of interest on the part of the pupils for our present course of study.

His findings indicate that there are extensive withdrawals from school and that the course of study then in use had very little interest for the students, which was one of the chief causes of withdrawals.

Frank M. Phillipps,[3] of the U.S. Office of Education says:

A careful study of survival rates made by the office in 1918 shows that of every 1,000 pupils reaching the fifth grade at that time, 634 reach the eighth grade, 342 entered the high school, and 139 was graduated...Making allowance for duplication, it is now estimated that of an original 1,000 entering the public schools for the first time, 974 reach the sixth grade, 855 reach the seventh grade, and 768 reach the eighth grade. No data are available for the number of pupils who complete the eighth grade. Of the original 1,000, the number entering the first year of high school is 610, while 456 reach the fourth year, and 260 are finally graduated from the school.

George E. Carrothers,[4] of the University of Michigan, in a later study, summarized figures over a period of ten years, taken

3 Frank M. Phillipps, Statistical Summary of Education, 1927-28. (U.S. Office of Education, Bulletin, No. 5, 1930). pp. 11-12

4 George E. Carrothers, "The Proportion of Entering Pupils Graduated By Secondary Schools." School and Society. Volume 61, January, 1945. pp. 12-14.

from reports on enrollments published by the Bureau of Cooperation of the University of Michigan. He found that 68 percent of the freshmen enrolled in the smaller schools in October, 1933, went on to graduation four years later; 69 percent of the freshmen entering in 1934 remained until graduation in 1938, and that 81 percent of the freshmen entering in 1938, graduated in 1942. This shows an upward trend in the number of students who remain in school until they graduate.

Among his deductions are the following:

1. Increased holding power is shown in each type of school from 1933 to 1941 and 1942.

2. Industry and war have been making inroads on enroll- ments in upper classes during the past three or four years.

3. The percentage of tenth and eleventh grade students remaining in school until graduation is greater in smaller schools than in the larger schools.

4. The percentage of the seniors graduating was greater in the smaller schools than in the larger schools for the years 1940-41 and 1941-42.

5. The percentage of seniors who continue to graduation averages nearly the same in each group of schools.

6. If a student is a sophomore in a small school, his chances of obtaining his diploma are 80 out of 100; if a sophomore in a large school, his chances of graduating are only 70 out of 100.

His findings indicate that schools are continuing to in- crease in their holding power, and that the small schools are

a better job of this than the large schools. This was found to
be generally true in this study, as the counties with a high
average percentage of withdrawals have their students in larger
schools, than do the counties with low average percentage of
withdrawals.

Burton F. Farnsworth,[5] of the State Department of Public
Instruction, Salt Lake City, Utah, and Jesse B. Casper, of Jordon
High School, Sandy, Utah, made an extensive study in Utah to
determine the extent of failures and withdrawals among the high
school pupils of Utah, what the attitudes of the teachers, the
principals, and the students were toward failures, and what the
schools were doing to meet the problem. They found that failures
vary widely from school to school, and that withdrawals vary
from 0.0 percent to 14.1 percent. They also found a striking
positive correlation between a high percentage of failures and
a high percentage of withdrawals. Teachers gave "poor attendance"
as the cause of failures, while pupils gave "lack of interest" as
the cause of failures. The opinion of the teachers' was that
only one-sixth of the failures was due to incompetence.

The results of this study agree closely with the above
survey in that subject failures appears to be one of the principal
causes of withdrawals of students from high school.

5 Burton F. Farnsworth and Jessee B. Casper, " A Study of
Pupil Failures in Utah." School Review. Volume 49, May, 1941.
pp. 380-383

Leonar V. Koos,[6] professor of Secondary Education, University of Minnesota, presented data to show that the high points of enrollment shrinkage occur between the eighth and ninth grades, and between the ninth and tenth grades. He also found that there were striking differences between school systems of the same size.

Data presented in this thesis also shows the greatest percentage of withdrawals to be in the first two years of high school. There is variation, also, in the percentages of withdrawals within each group of counties.

The Division of the Social Research of the Works Progress Administration[7] made a study of 25,000 youths over the years 1929, 1931, and 1932 from seven large cities over the United States. The purpose of this study was to find out how youth enter industry on the labor market, what kind of jobs they get, and what trouble they meet in obtaining the jobs. The survey revealed that only 46 percent of the students who enter high school persist until graduation; that the withdrawals are approximately proportional from the eighth grade through the third year high school. The survey also showed that 90 percent of the children of professional

6 Leonard V. Koos, The American Secondary School, Boston: Ginn and Company, 1927. pp. 114-149.

7 "Elimination of High School Students." School and Society. Volume 49, April, 1939. p. 441.

men complete high school, while more than 50 percent of the
children with parents who are classified as unskilled laborers
drop out of school before graduation. The following table shows
the findings of this study as to the percentage of graduates
whose parents are in the various occupation groups listed:

Occupation of Parent	Percent who graduate
Professional 90	
Clerical Workers............................. 78	
Proprietors and Managers..................... 76	
Skilled workmen.............................. 63	
Semi-skilled workers......................... 53	
Unskilled workers........................... 43	

These data indicate that the greatest number of with-
drawals come from families in the lower economic group. This is
in general agreement with the data in this thesis, in the respect
that counties having a high average percentage of withdrawals
also have a lower wealth per person.

George S. Counts,[8] writing at the University of Chicago,
made an extensive study from data obtained in four large cities

8 George Sylvester Counts, The Selective Character of
American Secondary Education. (Supplementary Educational
Monographs, No. 19). Chicago: University of Chicago Press, 1922.

of the United States, on 17,992 pupils enrolled in their public schools, and on 514 children of high school age at work in one of the cities. He reported on parental occupation and its relation to enrollment, and progress through school. Among his major conclusions were:

1. Children of families of superior wealth and social position enter high school in larger proportion and remain longer than do children from homes where money isn't so plentiful.

2. For 1,000 parents in managerial service, the number of pupils in the high school was 400; for those in professional service, 360; and for 1,000 parents in personal service, the number of children in high school is 50; for laborers, only 17.

3. The percent of children from superior social and professional classes increases sharply from the freshman to the senior year, while that for children of parents in trades, transportation, public and personal service, and in common labor declines.

4. For every 1,000 freshmen whose parents are in professional service, 602 remain until graduation four years later; for every 1,000 freshmen whose parents are common laborers, 124 remain until graduation.

These conclusions are in close agreement with the findings of the Works Progress Administration, which, in general, agree with the findings of this study on withdrawals.

Aslaug Hovde,[9] Supervisor of Child Welfare and Attendance
for the Pittsburg Public Schools, made a study of students with-
drawing from Pittsburg High Schools between June, 1932 and June,
1938. She found that out of 238 students who withdrew before
graduation from high school, 40 did not enter the high school,
and 40 withdrew during the first semester on reaching the age
limit of compulsory education. She found that the students who
withdrew usually came from homes of low economic and cultural
levels; that most students withdraw because of economic reasons,
but that others withdraw because of their inability to do high
school work.

These conclusions are in close agreement with the conclus-
ions of this thesis.

The New York Regents Inquiry,[10] made an extensive study
in fifty schools of New York Sta te over the period from June,
1936 to June, 1937. The purpose of the study was twofold: first,
to outline the characteristics of pupils leaving the secondary
schools and thereby secure materials which would reveal the clues

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[9] Aslaug Hovde. " A Study of Withdrawals From High School."
California Journal of Secondary Education. Volume 16, May, 1941.
pp. 297-298.

[10] Ruth E. Eckert and Thomas O. Marshall, When Youth Leave
School. (New York: The McGraw-Hill Company, Inc., 1938). pp.
IX-360.

needed to modify school practices, and second, to find out how the school views its leaving pupils. It based its information upon official records of the schools, interviews with the school staffs, interviews with employers of out-of-school youth, and with the youths themselves.

They found that fifty percent of the withdrawals belonged to homes classified as poor, and that sixty-seven percent withdrawing before the ninth grade came from homes rated as poor or on relief. Seventy-five percent of the homes from which withdrawals came were found unfavorable. They found that the schools knew little of the home life of the pupils.

The defects in the school system were summarized under three headings.[11]

1. "The school has placed scant emphasis on problems of immediate and practical living."

2. "The school has shown little appreciation of the differing goals of students, and has made small provision for meeting special and individual needs."

3. "The school has made little effort to accumulate knowledge concerning its students."

One of the general conclusions was,[12] "Hundreds of high schools graduates and withdrawals later attend proprietary schools.

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11 Ibid. pp. 187-188

12 Ibid. pp. 310-315

These conclusions would indicate that the high schools are not meeting individual needs of the students through the present curriculum, and that they do not take into consideration the financial limitations of the students enrolled in their schools.

A large percentage of the subject failures in the counties in this study is probably due to the lack of interest, on the part of the pupil, in the subject which he is studying.

The Virginia State Chamber of Commerce,[13] in 1943, under the leadership of Francis G. Lankford, Jr., of the Department of Education of the University of Virginia, made a survey of public education in Virginia and published its report in book form the following year.

The study was prompted by two considerations: (1) that the general welfare is affected by education more than any other state or local activity, and (2) the fact that Virginia ranks very low among the states in effort and achievement in education. The study was centered on the problem of high school education. Forty-three representative high schools were selected for the study, part white and part negro schools.

Among the observations of this survey are the following:

1. The survival rates for Virginia are lower than those for the Nation.

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13 Francis G. Lankford Jr., Opportunities for the Improvement of High School Education in Virginia. (Virginia State Chamber of Commerce, Richmond, March, 1944). pp. v-169.

2. The sruvival rate for the State is lower in the elementary school than in the high school.

3. Survival rates in county high schools are better than in city high schools.

The survey revealed many reasons for withdrawals. It was found that 426 of the 1,021 withdrawals reported were in the third quarter of their class, and 383 were in the fourth quarter. Only 18 withdrawals were in the first quarter.

Only 274 of the withdrawals were passing all subjects, while 480 of them were failing two subjects.

Only 229 of the withdrawals were considered as coming from financially poor homes, while 758 were from homes whose financial levels were moderate, comfortable, or wealthy.

The committee's general conclusion based upon all factors studied, was that unsatisfactory school adjustment caused the greatest number of withdrawals.

II. GENERAL SUMMARY OF LITERATURE REVIEWED

From studying the several surveys made on withdrawals, described in the foregoing section it seems that the following general conclusions were reached:

1. Withdrawals have stedily decreased from 1918 to 1941, but nearly 50 percent of the pupils who reach high school do not remain until graduation.

2. The war and industry caused abnormally large withdrawals during the years 1941, 1942, and 1943.

3. The smaller high schools have greater holding power than the larger schools.

4. A relatively small percent of the withdrawals are classified as mentally incompetent.

5. Children whose parents have adequate incomes tend to remain in school a greater number of years than do children whose parents are of the laboring class.

6. Children who are disinterested in school tend to drop out of school after reaching the compulsory attendance age.

7. Unsatisfactory school adjustment causes a large percentage of the withdrawals.

CHAPTER III

ANALYSIS OF DATA

1. The Extent of Withdrawals

As has been pointed out, the percentage of Virginia's
school population enrolled in school is less than that for the
Nation as a whole. This is, in part, due to students who enter
school and withdraw during the school session, or remain in
school through an entire session and do not enroll in any
school the following year. Few figures are available as to the
extent of summer withdrawals, and only those students who with-
draw during the school session are reported as withdrawals in
available data.

The extent to which students have withdrawn from the high
schools in the ten counties of Virginia which have the highest
average percentage of withdrawals over the ten-year period
covering the years 1935-36 through 1944-45, and from the ten
counties of Virginia which have the lowest average percentage of
withdrawals over the same period, is presented in Table I.

The group of counties having a high average percentage of
withdrawals will be referred to hereafter in this thesis as
counties-H, and the group of counties having a low average per-
centage of withdrawals will be referred to as counties-L.

TABLE I

TABLE SHOWING THE AVERAGE PERCENTAGE OF WITHDRAWALS FOR THE
INDIVIDUAL COUNTIES AND FOR EACH GROUP OF COUNTIES IN THE STUDY
FOR THE YEARS 1935-36 THROUGH 1944-45.

Counties	Counties-H	Counties-L
A*	25.54	9.10
B	18.03	8.47
C	15.70	8.96
D	18.76	9.06
E	15.23	9.10
F	15.88	9.15
G	17.21	8.07
H	15.36	8.94
I	16.75	7.45
J	17.36	7.45
Average	17.18	8.67

*Letters refer to counties.

Data presented in Table I show that in counties-L the
range of the average percentages is small. The range in counties-
H is, in general, also small, with the exception of county A in
this group which is 8.56 percent above the average for this group
of counties.

The standard deviation of the average percentages of

withdrawals for counties-L is 0.64. All in this group of counties, therefore, fall within two sigmas of the mean of the average percentages of withdrawals. However, it seems that in each group of the counties the distribution of the average percentages of withdrawals is such as to indicate that each group may be regarded as relatively homogeneous.

On the whole, the average percentages of withdrawals in one group of counties is double that in the other group of counties. This would seem to indicate that a factor materially affecting withdrawals in counties-H would appear in a different relationship in counties-L.

The trend of withdrawals for the same groups of counties used in Table I, and over the same period of time, is presented in Table II. This table shows the average percentage of withdrawals for each year from 1935-36 through 1944-45, for each group of counties studied.

TABLE II

TABLE SHOWING THE AVERAGE PERCENTAGE OF WITHDRAWALS EACH
YEAR IN COUNTIES-H AND IN COUNTIES-L FOR THE YEARS 1935-36
THROUGH 1944-45.

Years	Counties-H	Counties-L
1935-36	15.77	7.74
1936-37	15.80	6.94
1937-38	14.10	5.47
1938-39	15.29	6.07
1939-40	14.62	7.09
1940-41	17.18	9.08
1941-42	19.83	10.98
1942-43	25.26	13.33
1943-44	18.15	9.64
1944-45	16.15	9.40
Average	17.18	9.08

During the year 1937-38, withdrawals were at their lowest
level. The general trend from 1937-38 through 1942-43 was upward.
During the year 1942-43, the average percentage of withdrawals
was at its highest level in both groups of counties. After the
school session in 1942-43, the average percentages of withdrawals
in both groups of counties show a downward trend which continued
through the school session 1944-45.

The demands of the military forces, the migration of

families to work centers, and the great demand of industry for labor, probably were contributing causes to this increase in withdrawals through the war years. The people were becoming more settled in their locations by 1944-45. Those students who dropped out of school to work, or to enter the military forces, had done so in the earlier years of the war, and the students who were left in the schools were the one who in normal times would remain in school a longer period of time, since they had more induce-ments to withdraw during the war years than they would have had during normal years. This would explain the large percentage of withdrawals during the school session 1942-43, when both groups of counties had their greatest percentage of withdrawals for any one year, and also explain the decrease in withdrawals for the two succeeding years.

If we consider the years 1937-38 through 1939-40 as being normal years from an economic standpoint, then it would seem that students tend to remain in school a longer period of time during years of normal economic conditions than during years of great economic prosperity, or during years when the economic level of the country is below normal.

II. The Causes of Withdrawals.

1. The percentage of attendance. The average percentage of attendance which is usually associated with the persistance of a child in school, is found in Table III for both groups of counties.

TABLE III

TABLE SHOWING THE AVERAGE PERCENTAGE OF WITHDRAWALS AND THE AVERAGE PERCENTAGE OF ATTENDANCE IN COUNTIES-H AND IN COUNTIES-L.

Counties	Counties-H		Counties-L	
	Percent of withdrawals	Percent of attendance	Percent of withdrawals	Percent of attendance
A*	25.64	92.0	9.10	92.6
B	18.03	97.7	8.47	88.4
C	16.70	90.6	8.95	92.6
D	16.78	94.6	9.06	90.9
E	16.23	91.0	9.10	89.1
F	16.88	92.3	9.15	88.1
G	17.21	91.0	8.07	92.6
H	16.36	91.0	8.94	94.1
I	16.75	92.6	7.45	88.6
J	17.36	93.2	7.45	92.2
Averages	17.18	92.3	8.57	91.0

*Letters refer to counties.

The average percentage of attendance in counties-H apparently is higher than that in counties-L. The differences in the averages of attendance is 1.3. This difference was checked to determine if it were a "significant difference". It was found that the difference was not statistically significant. This seems to indicate that attendance does not affect withdrawals in this particular case.

A possible explanation of this condition may be that the greatest number of withdrawals occur during the early part of the school session, thus leaving in school only those students who have a relatively high percentage of attendance. If this is true, it would be expected then, to find a percentage of attendance in the two groups of counties about equal.

2. *The percentage of subject failures.* In Table IV is found the average percentage of withdrawals and the average percentage of subject failures in counties-H and counties-L.

TABLE IV

TABLE SHOWING THE AVERAGE PERCENTAGE OF WITHDRAWALS AND THE AVERAGE PERCENTAGE OF SUBJECT FAILURES IN COUNTIES-H AND IN COUNTIES-L.

Counties	Counties-H		Counties-L	
	Percent of withdrawals	Percent of subject failures	Percent of withdrawals	Percent of subject failures
A*	25.64	11.22	9.10	7.23
B	18.03	5.23	8.47	6.25
C	18.70	13.20	8.95	8.16
D	16.78	7.61	9.06	8.20
E	15.23	8.66	9.10	9.05
F	15.88	8.30	9.16	10.10
G	17.21	12.20	8.07	11.96
H	15.36	13.68	8.94	7.41
I	16.75	7.60	7.45	6.75
J	17.36	9.88	7.45	8.60
Average	17.18	9.79	8.57	8.17

*Letters refer to counties.

It is seen that the difference in the average percentage of subject failures in the two groups of counties is 1.62 percent. When this was checked to determine if it were a significant difference, it was found to be not statistically significant. This is possibly explained by the fact that students who withdraw from school in Virginia during the school session are reported as withdrawals, and no subject failures are reported for them. Subject failures are reported for only those students who are in school at the end of the school session. If failing grades are a cause of withdrawals, and they have been found to be,[14] then as students who fail withdraw from school, the potential subject failure students are eliminated during the school session, leaving only those students who would normally make passing grades.

3. Over-ageness. Subject failure is one of the principal causes of students being over-age. The average percentage of over-age students in each grade was obtained from the Reports of the Division Superintendents of the counties in this study for the years 1935-36 through 1944-45. The results were tabulated and are presented in Table V.

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14 Francis G. Lankford, Jr., Opportunities for the Improvement of High School Education in Virginia. (Virginia State Chamber of Commerce, Richmond, March, 1944). pp. v-169.

TABLE V

TABLE SHOWING THE AVERAGE PERCENTAGE OF STUDENTS OVER-AGE
IN EACH GRADE IN COUNTIES-H AND IN COUNTIES-L.

Grades	Percent of over-age in Counties-H	Percent of over-age in Counties-L
8th	36.2	31.1
9th	32.7	26.8
10th	28.6	23.1
11th	25.6	21.0

An examination of the data in Table V shows the largest
percentage of over-age students to be in the eighth grade in both
groups of counties. This would lead to the conclusion that there
are more subject failures in the eighth grade than in any other
grade. Since the percentage of over-ageness decreases in each
succeeding grade from the eighth through the eleventh in both
groups of counties, it may be that part of the over-age students
become withdrawals. It seems, then, that subject failure has an
indirect effect on withdrawals by reason of its relationship to
over-ageness among students.

4. Retentions. In Table VI are found the percentages of
students retained in each grade in the two groups of counties.

TABLE VI

TABLE SHOWING THE PERCENT OF STUDENTS RETAINED IN EACH
GRADE IN COUNTIES-H AND IN COUNTIES-L.

Grades	Percent of detentions in Counties-H	Percent of retentions in Counties-L
8th	14.9	11.5
9th	14.6	9.1
10th	10.9	7.8
11th	4.9	2.8

The fact that a student fails a subject in a particular
grade does not mean necessarily that he is retained in that grade,
but this might necessitate his remaining in school a longer period
of time in order that the failed subject might be repeated.

It is probable that retentions result from a student's
failing two or more subjects in a grade, although there is no
rigid promotion policy set up in the State of Virginia for this.

From the data in Table VI, it is evident that the percent-
age of students retained in each grade decreases in each successive
grade from the eighth through the eleventh grades in both groups
of counties. The greatest percentage of retentions occurs in the
eighth grade. The percentages of retentions in counties-H are
greater than those in counties-L. In counties-H, the percentages
of retentions in both the eighth and ninth grades are almost equal.
This may possibly account for a part of the higher percentages of
withdrawals in this group of counties.

Retentions are directly connected with over-ageness among students. Since there is a very small percentage of retentions in the eleventh grade in each group of counties, and since the percentage of over-age students in the eleventh grade is small for each group, it may be that students who are retained drop out of school before reaching the eleventh grade.

Although the difference in the percent of subject failures in the two groups of counties is not statistically significant, subject failure probably contributes to withdrawals by reason of its relationship to retentions and over-ageness.

5. **The percentage of the school census enrolled.** The percentage of the school census enrolled in the two groups of counties is shown in Table VII.

TABLE VII

TABLE SHOWING THE AVERAGE PERCENTAGE OF WITHDRAWALS AND THE AVERAGE PERCENTAGE OF THE SCHOOL CENSUS ENROLLED IN COUNTIES-H AND IN COUNTIES-L

Counties	Counties-H		Counties-L	
	Percent of withdrawals	Percent of school census enrolled	Percent of withdrawals	Percent of school census enrolled
A*	25.54	83.66	9.10	82.36
B	18.03	84.16	8.47	75.37
C	15.70	81.94	8.95	74.53
D	16.78	80.69	9.06	85.31
E	15.23	90.86	9.10	67.19
F	15.88	96.22	9.15	84.42
G	17.21	91.76	8.07	74.87
H	15.36	82.44	8.94	81.48
I	16.76	93.11	7.45	75.76
J	17.38	70.55	7.45	83.97
Averages	17.18	85.61	8.67	78.22

*Letters refer to counties.

The average percentage of the school census enrolled in counties-H is greater than that in counties-L. Only one county

in the group of counties-H is below the average for counties-L.

In considering the entire school population of a county, or group of counties, it is to be expected that there is a certain percentage of the population who are not interested in school; for while some parents keep their children in school until they graduate, others assume an indifferent attitude toward the education of their children. There are a few parents who have to be forced to keep their children in school. Children of those parents who would tend to keep them in school are found in greater proportion of the total enrollment when the percent of the school census enrolled declines. The larger the percent of census enrolled the more children of indifferent parents are included in school enrollment. This is the operation of the selective factor in our schools.

Since an increased number of factors enter into the problem of withdrawals when the entire school population, or a large percent of it, is enrolled in the schools, it would seem logical to assume that as the percentage of the school census enrolled increases, there would be an increase in the percentage of withdrawals. The degree to which this reasoning holds true may be seen by an examination of the data in Table VII. It is seen that the highest average percentage of the school census enrolled occurs in counties-H.

Since it has been found that withdrawals from school are to a large extent from homes on a low cultural and economic

level,[15] and that the students who withdraw are for the most part in the lower levels of achievement for their classes,[16] it seems logical to assume that a large percent of the population not enrolled in schools are in homes with a low cultural and economic background.

One may therefore conclude from the evidence presented in Table VII, that as the percentage of the school census enrolled is increased, there is an increase in the percent of withdrawals.

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[15] George S. Counts, The Selective Character of American Secondary Education. (Supplementary Educational Monographs, No. 19), Chicago: University of Chicago Press, 1922.

[16] Francis G. Lankford, Jr., Opportunities for the Improvement of High School Education in Virginia. (Virginia State Chamber of Commerce, Richmond, 1944).

6. **The average teacher load.** The average teacher load
carried by the teachers in each group of counties is shown in
Table VIII.

TABLE VIII

TABLE SHOWING THE AVERAGE PERCENTAGE OF WITHDRAWALS AND
AND THE AVERAGE TEACHER LOAD IN COUNTIES-H AND IN COUNTIES-L.

Counties	Counties-H		Counties-L	
	Percent of withdrawals	Average teacher load	Percent of withdrawals	Average teacher load
A*	25.54	26.15	9.10	14.83
B	18.03	25.03	8.47	24.44
C	15.70	25.59	8.95	18.56
D	16.78	23.71	9.06	24.68
E	15.23	20.95	9.10	19.97
F	18.88	23.55	9.15	21.47
G	17.21	26.20	8.07	19.71
H	15.56	27.07	8.94	19.03
I	16.75	25.75	7.45	19.40
J	17.36	25.53	7.45	15.59
Averages	17.18	24.98	8.57	19.42

*Letters refer to counties.

An examination of the data in Table VIII shows the average
teacher load in counties-H to be greater than that in counties-L.

Only three of the counties in counties-L have teacher loads which overlap those in counties-H, and these are below the average for counties-H.

The average teacher load, or the average number of students a teacher can successfully teach at one time, would probably vary with the subject being taught, the ability of the teacher, and the type of students she is teaching. On the whole, it would seem logical to assume that the smaller the number of students with which a teacher has to deal, the better should be the instruction. This conclusion would follow from the fact that the smaller the number of students a teacher has at any one time, the more individualized her work can be, and the better will be her opportunity to study the individual needs of her pupils. Thus she would have a better opportunity to help each student in his individual problems.

The conclusion following this reasoning would indicate that the average load which a teacher has to carry is an important factor in withdrawals from school. This conclusion is reached upon the hypothesis that each withdrawal has its own characteristics and problems back of it, and consequently needs to have a special study made of it in an effort to uncover and remove, as far as is practicable, the underlying cause or causes of the withdrawal.

The evidence presented in Table VIII seems to indicate that the average teacher load is a factor which affects withdrawals, since the greater average teacher load is in counties-H.

7. **The percentages of students entering the high schools from the feeder schools.** In Table IX is found the percentage of elementary school students enrolled in the feeder schools in each county in this study.

TABLE IX

TABLE SHOWING THE AVERAGE PERCENTAGE OF WITHDRAWALS AND THE AVERAGE PERCENTAGE OF ELEMENTARY STUDENTS ENROLLED IN THE FEEDER SCHOOLS IN COUNTIES-H AND IN COUNTIES-L

Counties	Counties-H		Counties-L	
	Percent of withdrawals	Percent of students in feeder schools	Percent of withdrawals	Percent of students in feeder schools
A*	25.54	92.48	9.10	42.93
B	18.03	77.13	8.47	73.55
C	15.70	36.41	8.95	23.04
D	16.78	74.17	9.06	52.74
E	15.23	68.88	9.10	24.79
F	15.88	49.38	9.15	64.08
G	17.21	79.75	8.07	23.64
H	15.38	71.58	8.94	52.82
I	16.75	69.02	7.45	58.32
J	17.36	66.66	7.45	31.69
Averages	17.18	68.52	8.57	44.76

*Letters refer to counties.

It is evident from Table IX that, on the average, counties-H recieve a larger percentage of their high school students from feeder schools than do counties-L.

8. The testing program in Virginia. In 1945-46 a state-wide testing program was carried out in Virginia in the third, sixth, and tenth grades. Among the tests given was the Stanford Achievement Test. The results of this test in the counties in this study were tabulated and are presented in Table X, for the third and sixth grades. Two of the counties included in this study did not report on this test; one of the counties being in counties-H and the other one in counties-L. Since one county was left out in each group the averages should have about the same value as if all the counties had reported.

TABLE X

TABLE SHOWING THE COMPARISON OF THE EDUCATIONAL AGES AND
THE CHRONOLOGICAL AGES OF THE ELEMENTARY STUDENTS IN THE THIRD
AND SIXTH GRADES ENROLLED IN THE HIGH SCHOOL PLANTS WITH THE
ELEMENTARY STUDENTS ENROLLED IN THE SAME GRADES OVER THE ENTIRE
COUNTY IN COUNTIES-H AND IN COUNTIES-L

		Elementary students enrolled in high school plants		Elementary students enrolled in feeder schools	
		Counties-H	Counties-L	Counties-H	Counties-L
Third grade	Educational age	8.45	8.34	7.95	8.04
	Chronological age	9.4	9.4	9.6	9.3
Sixth grade	Educational age	11.2	11.0	10.6	10.6
	Chronological age	12.4	12.4	12.8	12.5

An examination of the data in Table X shows the chronological ages of the elementary students in the third grade enrolled in the high school plants in counties-H and in counties-L to be the same. Also the chronological ages of the students in the sixth grade for this group of students are the same.

For elementary students enrolled over the entire county, or in the feeder schools, there is a difference of 0.3 of a year in both the third and sixth grades, counties-H having the higher chronological ages in both grades.

These two comparisons indicate that the chronological ages of students entering high school in counties-H and in counties-L are almost the same.

The educational ages of the third grade elementary
students enrolled in the high school plants vary only about one
month, counties-H having the higher educational ages. In the
sixth grade, counties-H have an educational age of almost two
months higher than the counties-L.

In considering the elementary students from the feeder
schools, it is important to note that the counties-L have the
higher educational age in the third grade, and that the education-
al ages of the sixth grade students are the same in both groups
of counties.

The most important difference occurs when the educational
ages of the sixth grade students enrolled in the high school
plants in counties-H are compared with the educational ages of
the sixth grade students enrolled in the feeder schools for this
group of counties. There was found to be a difference of 0.67
of a year in the educational ages in these two groups of students.
From Table IX it is seen that on the average, 68.5 percent of the
students entering high school in counties-H come from the feeder
schools. This means that it is probable that a considerable
percent of the eighth grade students in this group of counties
enter high school with a lower educational age, than that of
pupils who enter from elementary schools organized with the high
school.

In considering this same comparison in counties-L it was
found that the sixth grade students who were enrolled in the high
school plants had an educational age of 0.44 of a year higher than

that of the sixth grade students enrolled in the feeder schools
in this group of counties. Also the high schools in counties-L
receive only 46 percent of their eighth grade students from
feeder schools. Therefore it would appear that the eighth grade
in counties-L would have a smaller percentage of students with a
low educational age than would be found in the eighth grade of
counties-H. Thus, in counties-H approximately two-thirds of
the eighth grade is composed of students with lower educational
ages. Counties-L have less than one-half of the eighth grade
students with lower educational ages, and these are less than
one-half year below the 56 percent with the higher educational
ages.

This would seem to indicate that counties which have their
elementary students in larger schools also have a smaller per-
centage of withdrawals, possibly due to the fact that students
are better prepared to enter high school after completing the
seventh grade in a consolidated school.

9. The percentage of students transported. The percentage
of students transported in the two groups of counties is found
in Table XI.

TABLE XI

TABLE SHOWING THE AVERAGE PERCENTAGE OF WITHDRAWALS AND
THE AVERAGE PERCENTAGE OF STUDENTS TRANSPORTED IN COUNTIES-H
AND IN COUNTIES-L

Counties	Counties-H		Counties-L	
	Percent of withdrawals	Percent transported	Percent of withdrawals	Percent transported
A*	25.54	70.18	9.10	63.84
B	18.03	53.68	8.47	60.79
C	15.70	54.88	8.95	78.27
D	16.76	56.25	9.06	61.23
E	15.23	61.15	9.10	84.61
F	18.88	60.63	9.15	76.43
G	17.21	25.12	8.07	82.52
H	15.36	59.99	8.94	61.32
I	16.75	63.84	7.45	76.58
J	17.36	31.22	7.45	71.25
Averages	17.18	52.72	8.57	71.68

*Letters refer to counties

The data presented in Table XI show that counties-H transport only approximately 53 percent of their students, while counties-L transport approximately 72 percent of their students. It is probable that a county which transports a large percent of its students has consolidated its schools to a large extent. It

has been pointed out that as consolidation of schools is in-
creased, there is a tendency of withdrawals to decrease. The
data presented in Table XI seems to strengthen this conclusion.

This conclusion is also logical from the viewpoint of the
relative ease with which children can get to and from school.
The disinterest of a part of the parents in the education of
their children, and the low economic level of the parents make
it difficult for the children to obtain sufficient clothing to
protect them during the winter months. Therefore, children who
have a long distance to walk to and from school would tend to
withdraw from school during the months of cold weather.

It would seem, therefore, that the percentage of students
transported in a county affects withdrawals, and that by in-
creasing the percentage of students transported, a decrease in
withdrawals may be expected.

10. The average annual per capita expenditure for instruction. The average percentage of withdrawals and the average annual per capita expenditure for instruction are compared in Table XII.

TABLE XIII

TABLE SHOWING THE AVERAGE PERCENTAGE OF WITHDRAWALS AND THE AVERAGE ANNUAL PER CAPITA EXPENDITURE FOR INSTRUCTION IN COUNTIES-H AND IN COUNTIES-L

Counties	Counties-H		Counties-L	
	Percent of withdrawals	Average per capita expenditure for instruction	Percent of withdrawals	Average per capita expenditure for instruction
A*	25.54	44.94	9.10	72.35
B	18.03	54.85	8.47	43.39
C	15.70	40.74	8.95	66.84
D	16.78	40.00	9.06	61.82
E	15.23	47.31	9.10	54.91
F	15.88	53.87	9.15	45.21
G	17.21	45.97	8.07	51.83
H	15.86	38.14	8.94	47.22
I	16.75	59.16	7.45	66.07
J	17.36	45.92	7.45	69.58
Averages	17.18	47.09	8.67	56.00

*Letters refer to counties.

An examination of the data presented in Table XII shows the average annual per capita expenditure for instruction in counties-L

to be approximately $9.00 more per student than in counties-H.

As indicated in the Annual Reports of Superintendent of Public Instruction in Virginia, the average annual per capita expenditure for instruction of high school students diminishes with an increase in enrollement up to approximately 300, after which there is an increase in per capita expenditure. This increase is attributed to the increase in expenditure for the broadening of the curriculum. As the curriculum is made more comprehensive, it will meet the needs of a greater percent of the students, which will result in a greater holding power of the school, and consequently reduce withdrawals.

At the same time, the average annual per capita expenditure for instruction is a very good indicator of the interest the people of a county manifest in public education, and the amount of money they are willing to put into it. It is also well to remember that the amount of money spent on education in a county depends upon the wealth of the county. A county may be wealthy and not spend very much money on its public schools, and conversely, a county may be relatively poor and spend a large amount of money on its public schools as compared to its wealth.

Considering the average annual per capita expenditure for instruction and using this as a criterion for judgement, it would see, that counties-L manifest a greater interest in their public schools, and consequently would take a greater interest in keeping their children in school than do counties-H. This would tend to decrease withdrawals, as is seen by the data presented in Table XII.

11. The socio-economic factor. There has been evidence presented in other studies that the economic background of a student is an important factor in the number of years he will remain in school.

In the counties in this study, it was found that the average wealth per person in 1940 in counties-H was $387.00, while that in counties-L was $418.00. This evidence is in agreement with other studies, and leads to the conclusion that the economic background of a student is an important factor in the number of years he will remain in school. This indicates that the greater the per capita wealth, the longer students remain in school, and consequently the smaller the percentage of withdrawals before graduation.

CHAPTER IV

SUMMARY AND RECOMMENDATIONS

A. SUMMARY

Through a study of the eleven factors in the preceding chapter, the following conclusions were reached:

1. Withdrawals in the rural white high schools of Virginia, covering the years 1935-36 through 1944-45, have been extensive, ranging from approximately 7.5 percent to 25.5 percent among the counties studied, with an average of 12.8 percent in these counties.

2. The greatest percentage of withdrawals in any one year occurred during the 1942-43 school session.

3. Over-ageness is a contributing factor to withdrawals, and by reason of the relationship of subject failure and retentions to over-ageness, these two factors are likewise related to withdrawals.

4. The percentage of the school census enrolled is related to withdrawals; counties having the greater percentage of the school census enrolled, likewise have the larger average percentage of withdrawals.

5. The percentage of withdrawals from a school is related to the average teacher load; the greater the teacher load, the greater the expectation of withdrawals.

6. The average educational age of the elementary students in the elementary department of the high school plants is higher

than the average educational age of the elementary students en-
rolled in the feeder schools.

7. Counties which transport a large percent of their
students have a lower average percentage of withdrawals than
counties which transport a smaller percent of their students.

8. The percentage of withdrawals is related to the
average annual expenditure for instruction; counties having the
greater average annual expenditure for instruction also have the
lower average percentage of withdrawals.

9. The percentage of withdrawals is related to the
average economic level of the total population; counties having
the higher average per capita wealth also have the lower average
percentage of withdrawals.

B. RECOMMENDATIONS

The causes of withdrawals are numerous. For this reason a close study of each withdrawal should be made in an effort to determine the underlying cause or causes of that withdrawal, and then an effort should be made to remove the cause or causes. Only in this way can a school hope to reduce its withdrawals to a minimum.

Through a study of factors affecting withdrawals in twenty counties of Virginia, the writer offers the following recommendations as a means of reducing withdrawals:

1. That subject failures in the schools may be reduced, and thereby reduce over-ageness and retentions, it is necessary that students be guided into programs which fit their interests, needs, and abilities. The small high school, by reason of its limited faculty and other facilities, cannot offer a program sufficiently wide in scope to meet the needs of all the students. Therefore, counties should make every effort to consolidate their high schools in order that a more comprehensive program may be offered. This would necessitate increased transportation which, as a factor in consolidation, reduces withdrawals.

That the students may be assisted into proper programs, a guidance service should be instituted in each school. This should reduce subject failures, and thereby reduce retentions and over-ageness, which contribute to withdrawals.

2. All students who are physically and mentally capable should be enrolled in school. Therefore, the compulsory attend-

ance laws should be modified in such a way as to make it possible to keep all students in school until they have graduated, or until they have reached the limit of their ability.

3. That the guidance program in the schools may be more effective, the average teacher load should be reduced in all schools. This would provide a better opportunity for the study of individual needs of the students.

4. That all elementary students may have equal educational opportunities, the number of teachers in the feeder schools should be increased until they have the same pupil ratio as the elementary teachers in the high school plants have. This should be done only after the counties have made every effort to consolidate the elementary schools, particularly from the fourth through the seventh grades.

5. In order that students whose families are on the lower economic level may be enabled to remain in school a longer period of time, a program should be worked out between the school and the community to provide part-time employment on the farms or in the community wherever employment is available. The school program may be modified to facilitate part-time attendance by those for whom it is appropriate.

6. As services in the schools are expanded, added personnel will become necessary. This will cause an increase in per capita expenditure. Therefore it is recommended that the State initiate some plan to help those counties in which this increased cost cannot be wholly met by local revenue.

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