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An academic history of the class of 1958 in a selected Henrico County High School

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AN ACADEMIC HISTORY OF THE CLASS OF 1958 IN A SELECTED HENRICO COUNTY HIGH SCHOOL

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by

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CHAPTER I

INTRODUCTION TO THE STUDY

Faced with rapid and continuous growth in the school population, the County School Board of Henrico County, Virginia, authorized in 1959 an intensive and extensive survey of the curricular offerings in its secondary schools. The purpose of this survey was two-fold: to discover the educational needs of its youth and to determine to what extent the county high schools were meeting these needs.

I. THE PROBLEM

Statement of the Problem

This academic study of the class of 1958 at School Y is an outgrowth of that curriculum survey. Specifically, it is an investigation of the grades earned in a five year period by the members of the class. It was the purpose of this study to show the academic history of one class through a five year period at one of the county high schools and to determine what implications, if any, this history would have for guidance, curriculum, instruction, and evaluation in the secondary schools.

Importance of the Study

This study reveals the course selections under the prevailing curriculum with accompanying successes and failures experienced by the group being studied. It shows the subject fields in which the

greatest degree of success and failure occurred. It offers a comparison between grades earned in required subjects and elective courses. It depicts the grade level at which the group met with the greatest failure. It will furnish data useful for future curriculum studies and experiments.

Limitations of the Study

Preliminary research for this study included three Henrico County high schools, schools designated in the preliminary data as X, Y, and Z. School Y was selected for these reasons: it was the largest of the three schools; it had been established as a four year high school on its present site for the longest period of time; and it was felt that, according to results on standardized scholastic aptitude and achievement tests, the Y school population was more nearly representative of the normal curve of distribution.

This study was limited by being only a chronicle, academically speaking, of what happened to one high school class in a five year period. It was concerned with all the students who entered School Y at a time which put them in position to graduate in June, 1958. Most of the people in this group entered School Y in the eighth grade in 1953 before becoming high school students in the ninth grade in 1954. Numbered in this membership also were those transfers from other secondary schools entering School Y at any time between 1954 and 1958 with sufficient Carnegie units to make them eligible to graduate in June, 1958.

II. BACKGROUND OF THE STUDY AND PROCEDURES USED

This academic history of the class of 1958 at School Y was an outgrowth of the curriculum study which began in Henrico County secondary schools in 1959. At that time the Henrico County School Board appropriated $5,000, and each year thereafter set up additional funds, to finance the study. To lay the ground work for the survey, George H. Moody, Superintendent of Henrico County Schools, met with the principals of the secondary schools. Later the County School Board appointed a committee composed of Mr. Moody; Dr. Woodrow W. Wilkerson, Director of Secondary Education, Virginia State Department of Education; a member of the County School Board; and two lay citizens. It was the duty of this committee to make specific plans for the survey, the purpose of which was to determine the status of the curriculum of the secondary schools in Henrico County. This committee retained the services of Dr. George J. Oliver, Head of the Education Department, College of William and Mary, as consultant. Dr. Oliver, with his staff, working with R. J. Britton, Director of Research, Henrico County School Board, planned the pattern the survey followed and designed the questionnaires used.

These questionnaires were sent out in the spring of 1959 to these groups: graduates of the class of 1953; graduates of the class of 1958; drop-outs in the 1953-58 period from the class of 1958; students enrolled in 1959 in Henrico secondary schools;

parents of the students enrolled in 1959; and to faculty members of the Henrico secondary schools in 1959.

Some faculty members worked on committees obtaining addresses of the graduates and drop-outs; others recorded on individual course selections sheets all grades in all classes earned by the graduates, drop-outs, and transfers, the entire membership of the 1953-58 class. Grades for these individual sheets were obtained from each student's permanent record, or cumulative folder. It was these individual grade sheets which were used for the academic inventory data in this history.

In the summer of 1959, with the questionnaires returned, the first curriculum workshop, composed of thirty-nine administrators and faculty members, convened to compile and study the questionnaire data. The consultant retained at this time was Dr. Louis E. Armstrong, Director Indian Springs School Community, Helena, Alabama. In the summer of 1960 Dr. Armstrong met with the second workshop group, this one composed of the principals of all junior and senior high schools and all secondary school supervisors.

It is not the purpose of this investigation to show the results of the curriculum study to date or to report the work done in the curriculum workshops. However, these survey activities gave rise to provocative questions. What happened to the individual student in School Y during these five years? How successful was he in his academic career? Did he graduate? Did he drop out of

school? At what point in school did the greatest drop-out rate occur? This study was begun in an attempt to answer these questions.

Superintendent Moody stated concerning this curriculum survey, "No school man is satisfied with general conditions in his school system. He has a desire to improve conditions. He wants to look carefully at the whole program."[1]

He further remarked that the Henrico County School Board, in setting up the survey, could have called in top-flight curriculum planners to write a new course of study for the secondary schools. "That is not my idea," he continued. "My idea is to improve the curriculum at the grass roots, with the teachers in the classroom."[2]

Definitions of Terms Used

In interpreting the data in this history, the following meanings for terms were used:

Graduate - A student who graduated in 1958 from School Y.

Drop-out - A student who left School Y during the 1953-58 period and did not re-enter Y or enter any other secondary school.

Transfer - A student who left School Y and entered another school.

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[1]Statement, in part, made by George H. Moody, Superintendent of Henrico County Schools, in a conference, June, 1961.

[2]Ibid.

Required Courses - The courses specified for graduation from a secondary school by the Virginia State Department of Education. In the eighth grade the required courses were English, mathematics, science, social studies, and physical education. In the four years of high school the required courses were: four years of English, one science, one mathematics, United States History in grade eleven, United States Government in grade twelve, and physical education in grades nine and ten.

Elective Courses - Those which the student took through choice.

8th Grade Exploratory Courses - Industrial arts, home economics, music, art, and foreign language.

Under this system, the eighth grade student, in addition to the five required courses, had to select areas interesting to him. If he selected foreign language, he spent approximately three months in each of three foreign languages, Latin, French, and Spanish, getting a very brief introduction to each. If he selected the other exploratory courses, he spent one semester in each of two courses. Presumably this system enabled the eighth grader to discover his interests prior to his entrance into high school.

III. ORGANIZATION OF REMAINDER OF THESIS

In reporting the history of this group of students, the study involved the school and community, the parents, and the students.

This report will describe first the background of School Y, the community changes, and population growth in the school area.

The next chapter will give home background information about the student, reveal his type of family, the educational status of his parents, their business or professional occupations, and their educational aspirations for their children.

The academic data on the five year group will then be presented in charts, interpreted for practical use, and conclusions will be drawn from the results obtained.

IV. SUMMARY

The Henrico County School Board in 1959 authorized a detailed survey of its secondary school curricula. Rapid growth in the school population and changing trends in American living made it necessary to take a close look at the whole secondary school program to find out to what extent the schools were meeting the needs of the individual. This academic history of the class of 1958 at School Y grew out of this curriculum survey.

CHAPTER II

A HISTORY OF TWO SCHOOLS AND THEIR COMMUNITIES

When the students involved in this study entered School Y in 1953, the school had been in existence two full years. It was a new school in a changing community, but it actually had had its beginning years before that in its rural predecessor. A brief history of that predecessor and the community it served, followed by the seven year story from 1951-58 of School Y and the community it served, will here be given.

I. SCHOOL A AND COMMUNITY

Origin and History of the Predecessor

Henrico County, which practically encircles the city of Richmond, Virginia, for three hundred years and more was a farming area with a small population. At the beginning of the twentieth century it had limited need for public secondary schools. One of these schools, which will be called School A in this history, was built in 1911 in the northern section of the county to serve a typical rural community. Most of the people in the general area were farmers with only a very few of its residents employed in industry in the nearby city of Richmond.

School A, housing the seven elementary and four high school grades, provided educational opportunities which ranged from meager

to adequate for the children of the rural parents. Demands upon the schools at the time were few.

Change in Population Types

By the 1930's, however, the area began to change. The community served by School A expanded, slowly at first and then rapidly, from a scattered rural area into a compact urbanized community, a home of middle and lower income bracket people. Each year increasingly larger numbers of families began to move out of the city into the county where taxes were lower. Population expansion in the county area to the west of the city began to take place also. School A began to feel the gradual impact of the population change in its school enrollment, especially after the 1942 annexation proceedings of the city of Richmond which included the one county high school in the western part of the county. School A then became the only four year high school serving both the western and the northern sections of Henrico County.

The enrollment data for a period of twenty-eight years for School A and its successor, School Y, are presented in Table I, the figures for which were obtained from the PRINCIPAL'S ANNUAL REPORT to the Superintendent, kept on file in the principal's office. In 1930-31 when the high school enrollment for grades 8-11 was 152, and the graduating class numbered 25, the elementary school enrollment for grades 1-7 in the same building was 353. The high school enrollment showed slow but steady increases during the

TABLE I

SECONDARY SCHOOL ENROLLMENTS AT

SCHOOL A AND SCHOOL Y 1930-1958

	Total Enrollment			Graduates		
Year	Boys	Girls	Total	Boys	Girls	Total
1930-31	64	88	152	11	14	25
1935-36	119	115	234	25	26	51
1940-41	161	195	354	30	37	67
1945-46	231	313	544	34	60	94
1947-48	341	360	701	79	77	156
1948-49*	356	355	711	21	16	37
1949-50	467	474	991	49	65	114
1950-51**	469	502	971	48	76	124
1951-52#	544	553	1097	56	80	136
1952-53	682	655	1337	72	74	146
1953-54	718	756	1474	57	85	142
1954-55##	593	574	1167	72	104	176
1955-56	694	640	1330	62	94	156
1956-57	808	727	1535	61	91	152
1957-58	906	808	1714	75	93	168

* Eighth grade added
** Accredited
\# Opening of School Y
Opening of another high school

1930-40 decade. The more than two hundred increase in 1945 over the 1940 number can be explained, in part, by the Richmond annexation in 1942 of an area which included the one county high school in the western part of the county. From that time on, the students living in western Henrico traveled across the county to School A for their formal education.

According to the PRINCIPAL'S ANNUAL REPORT of June, 1949, a twelfth year was added to the school system in 1948-49. This may account for the fact that, while 156 students graduated in 1948, only 37 graduated in 1949; at the same time, however, the total membership for grades 8-12 was close to three hundred more than the membership for grades 8-11 the preceding year. The extra year which was added was, in reality, an eighth grade, but it was neither an elementary nor a secondary grade. Until the Henrico County junior high schools were opened in September, 1958, to house grades 7, 8, and 9, the eighth grade remained in the high school building, but it carried no Carnegie unit of credit toward graduation.

Meanwhile the school plant at School A was taxed to capacity to accommodate the increasing number of students. Three additions were made to the main building, a separate auditorium building erected, and a home economics cottage built within the 1930-40 decade. Still there was not room enough for the 991 students including the 114 graduates enrolled in 1949-50. The year 1950-51, when School A was first accredited by the Southern Association of

Colleges and Secondary Schools, was the last year School A operated as a high school. The facilities could no longer house the secondary group. In 1951-52 the buildings were converted to elementary school use, and the high school faculty and students moved to new quarters.

The history of School A was a long one. So warm was the feeling of the county residents for their school that many in the area who had attended it wanted the name, School A, retained for the new school, but School A ceased to function as a secondary school in June, 1951.

II. SCHOOL Y AND COMMUNITY

Opening of School Y

Much of the community spirit which had prevailed for School A carried over and permeated the School Y community when the transfer was completed. Built to accommodate 1,000 students, School Y had a first year enrollment of 1,097. As shown by Table I, the second year enrollment was 1,337; the third year, 1,474.

School Enrollment Growth

Conditions were so crowded that large shop areas, which were intended for metal, and possibly automotive classes at a later date, were divided into smaller classrooms. At times study halls were held in the auditorium. Temporary relief came when a new secondary

school opened in September, 1954, and drew from School Y the students in certain areas. The enrollment dropped then from 1,474 to 1,167, but thereafter the increase was about two hundred pupils each year. In 1958 the number reached 1,714. Meanwhile two additions, including twelve classrooms, were added to the main building. With the opening in September, 1958, of junior high schools in Henrico, the enrollment at School Y dropped back to approximately the number for which the building, with its two additions, was intended.

Description of Parental Background

The community served by School Y was no longer the rural area which had been served by School A. The majority of the residents did not farm; they commuted to Richmond to engage in business. In the 1950's large subdivisions were developed in Henrico County, each adding to the enrollments.

What type were these new county residents, these parents of the students in School Y? The answers to questionnaires sent to these parents in 1959 gave a verbal picture of the general make-up of the community.

Educational Status. In reply to the questions concerning educational background of the parents, as revealed in Table II, the largest single group, 520, graduated from high school; 121 graduated from college; those completing one, two, or three years

TABLE II

EDUCATIONAL LEVEL ATTAINED BY PARENTS

Grade Completed	Fathers	Mothers	Total
(less than) - 6th	10	5	15
6th	17	4	21
7th	56	20	76
8th	57	36	93
9th	55	56	111
10th	100	62	162
11th	115	162	277
12th	237	283	520
Business College	27	96	123
Trade School	10	2	12
College 1 year	19	21	40
College 2 years	33	38	71
College 3 years	11	12	23
College 4 years	81	40	121
Graduate Work	10	4	14

of high school totalled 550; those completing one, two, or three years of college were 134. The range in formal education was from 15 parents completing less than sixth grade of work to 14 doing one, two, or three years of graduate work. The average parent of School Y had the equivalent of twelfth grade education. This level is higher than that reported for the nation:

> Whereas the average education level of the population 25 years old and over in 1950 was 9.3 school years (that is, about half the population had completed the ninth grade), the average is expected to be about 10.8 years in 1960; 12.0 years in 1970, and 12.2 years in 1980. The median level of education is expected to stabilize at approximately the twelfth year of school.[3]

Aspirations for Future of Children. Data were not available for School Y alone to show the parents' expectations for the future education of their children, but in the county secondary schools as a whole these data were available. Less than two per cent (1.6 per cent) of the parents expected their children to finish high school only; 68.1 per cent expected their children to finish college; 10.1 per cent expected them to attend trade schools; 4.8 per cent expected them to attend business schools; and 15.2 per cent were undecided in their educational aspirations for their children.

The student reactions to future schooling were somewhat different. The data revealed that 21.8 per cent of the students

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[3]Harry Hansen (ed.) The World Almanac, 1960 (New York: The New York World Tribune and Sun, 1960), p. 261.

expected to finish high school only; 48.3 per cent expected to attend college; 7.6 per cent, to attend trade schools; 11.2 per cent, business schools; and 10.9 per cent reported they were undecided about the future.

College training was the fond hope of nearly 70 per cent of the parents for their children; slightly less than 50 per cent of the students aspired to college training.

Occupational Status. Parent questionnaire answers revealed the occupational status of parents in the School X community and the aspirations of these parents for their children. Figures in Table III show that while 73 fathers and 30 mothers were engaged in professional work following college training, 274 parents desired professional status for their children, but 459 of the students aspired to professional status. Only 10 parents desired a future in retail selling for their children, yet 187 parents themselves were employed in retail selling; and 17 students preferred selling as a career. Seven parents listed housewife as the future for the girls, while 462 mothers listed housewife as their occupations, and 62 students gave housewife as the future job. Those figures might indicate that the occupation of housewife was held in low esteem by the mothers. Approximately the same number of students indicated a preference for the skilled trades as the number of parents employed in the skilled trades, but only 61 parents

TABLE III

OCCUPATION OF PARENTS; PARENT AND STUDENT VOCATIONAL AIMS FOR STUDENT

Occupations			Aspirations	
	Fathers	Mothers	Parent for Child	Student for Himself
After Attending College				
Profession-Scientific	28	0	126	266
Profession-non-Scientific	26	26	135	180
Business Administration	17	2	3	12
Semi-prof.-Tech.	2	2	10	1
With No College Training				
Semi-prof.-Tech.	12	15	76	126
Managerial Adm.	95	4	14	9
Sales-retail	114	73	10	17
Sales-other	4	13	0	2
Services-Government	13	0	7	84
Services-other	11	13	18	17
Clerical	51	113	112	202
Agriculture	7	0	21	12
Housewife	0	462	7	62
Skilled Trades	160	8	61	173
Semi-skilled Trades	31	6	8	6
Unskilled	18	12	0	8
Unemployed	0	0	0	0
Unemployable	0	0	0	0
Retired	2	0	0	0
Undecided	4	2	359	44

chose skilled trades for their children. A comparison of these data in Table III shows a tendency for the parents to aspire to higher occupational status for their children than the parents enjoyed themselves. The aspirations of both parent and student for the future of the student appear unrealistically high in the college training and technical fields.

Parental Rating of School Y

These same parents rated School Y on a check list, and the results showed how the community felt School Y was performing in the business of education. Better than 90 per cent of the parents rated the school from satisfactory to excellent on these areas: curriculum variety, teaching of fundamentals, quality of teaching, friendliness of teachers, intellectual development of students, effectiveness of athletic and aesthetic training, preparation for college, development of good health habits, development of good reading habits, development of desirable social life in students, college information, vocational information, vocational training, good character development, and all-round development in general experiences.

At the time this study was made, there were 62 teachers on the faculty of School Y, all of whom held up-to-date teaching certificates. Sixty had bachelor's degrees; two, master's. Only 8 had Collegiate Certificates while 52 held Collegiate Professional Certificates. In years of experience, the range was from 6 teachers

with no years of experience to 8 teachers with more than 21 years of experience. The largest number, 17, had from 6-10 years of experience while 13 had 2-3 years of experience.

III. CURRICULAR OFFERINGS

The list of curricular offerings given in Table IV shows the changes which took place in School A and School Y with the passage of time. The curriculum more than doubled its scope of offerings in general and college preparatory areas in twenty-seven years. It enlarged the scope of vocational training in the fields of business, industrial arts, and homemaking; it increased its aesthetic training in the fields of music and art. Through its curriculum, the school reflected the changing community.

IV. SUMMARY

School A offered educational opportunities to many Henrico students during the forty years it served as a secondary school. Its enrollments, curriculum changes, and additions to the buildings reflected the changes which took place in the community during those years. When School A ended its period of service in 1951, the community support it had enjoyed continued when the faculty and students transferred to the new School Y. A repetition of large enrollments and inadequate facilities which took place at School A was soon the case at School Y. In spite of this, judging

TABLE IV

CURRICULUM OFFERINGS IN HIGH SCHOOLS A AND Y

Grades 8-11 1931	Grades 8-11 1941	Grades 8-12 1951	Grades 10-12 1958
English 4 yrs.	English 4 yrs.	English 4 yrs.	English 4 yrs.
Alg. 2 yrs.	Alg. 2 yrs.	Speech	Journalism
Pl. Geom.	Pl. Geom.	Journalism	Speech
Sol. Geom.	Sol. Geom.	Creative Writing	Dramatics
Gen. Science	Trig.	Gen. Math 2 yrs.	Gen. Math 2 yrs.
Biol.	Gen. Sci.	Alg. 2 yrs.	Alg. 2 yrs.
Latin 3 yrs.	Biol.	Pl. Geom.	Pl. Geom.
French 2 yrs.	Chem.	Sol. Geom.	Sol. Geom.
W. History	Physics	Trig.	Trig.
U. S. History	Latin 3 yrs.	Gen. Sci.	Sr. Math
U. S. Gov't.	French 3 yrs.	Biol.	Gen. Sci.
Civics	W. History	Chem.	Biol.
Gen. Business	U. S. History	Physics	Chemistry
Typing	U. S. Gov't.	Latin 3 yrs.	Physics
Bookkeeping	Gen. Business	Spanish 3 yrs.	W. Geog.
Shorthand	Shorthand	French 3 yrs.	W. History
Home Ec. 3 yrs.	Typing	Soc. Studies	Civics
	Mech. Drawing	W. History	Eng. History
	Home Ec. 3 yrs.	U. S. History	U. S. Gov't.
	Music	U. S. Gov't.	Latin 4 yrs.
		Gen. Business	French 4 yrs.
		Bookkeeping	Spanish 4 yrs.
		Typing	Art 2 yrs.
		Office Pract.	Music
		Shop	Band
		Mech. Dr. 2 yrs.	Boys Chor.
		Homemaking 3 yrs.	A Cappella
		Music	Gen. Metals
		Art	Woodshop 2 yrs.
		Phys. Ed.	Mech. Dr. 3 yrs.
		Health	Home Ec. 3 yrs.
			Boys Home Ec.
			Home & Fam. Living
			Gen. Business
			Basic Business
			Typing 2 yrs.
			Shorthand 2 yrs.
			Bkkp. 2 yrs.
			Clerical Pract.
			V.O.T.
			Health
			Phys. Ed.

by the responses from parents concerning the effectiveness of the school program, it was felt the school was functioning adequately.

CHAPTER III

ACADEMIC STUDY OF THE CLASS OF 1958 FOR FIVE YEAR PERIOD

How well did the class of 1958 perform, the class which entered School Y as eighth graders in 1953 with graduation from high school in 1958 the normal goal? What were its potentialities? It was a product of the community made up of essentially the same parents as those previously described. It was a product of the school whose early history was given in the preceding chapter. It was a part of the largest enrollments on record in that school. This is the story of that class.

I. CLASS MEMBERSHIP

The membership data given in Table V for this class during its five years at School Y were based on information taken from the individual's permanent record, or cumulative folder, and recorded on individual course selection sheets. On each sheet appeared the name of the individual, the year he entered the school and his grade level upon entrance; the year he left the school, as a graduate, drop-out, or transfer; a letter grade, A, B, C, D, or F, for each subject taken by the student during this period; and the total number of credits he earned. It was these credits which were used to establish the grade placement of the individual. There was a total of 390 individual course selection sheets representing that number of students.

II. ENROLLMENT IN GRADE LEVELS

To be eligible for eighth grade placement in this study, the student must have successfully passed the seventh grade; for ninth grade, he must have passed all required eighth grade subjects; for tenth grade, he must have earned three Carnegie units; for eleventh grade, seven Carnegie units; and for twelfth grade, eleven Carnegie units. These same criteria were used to determine the grade level of the drop-out and the transfer.

All the students involved in the 390 record sheets did not enter School Y at the eighth grade level; some transferred into the school at the ninth, tenth, eleventh, and twelfth grades, eligible to graduate in 1958. Some students remained at the same grade level two or more years because of failure; some students took courses on two grade levels because of irregularities in their credits. For example, the student who had six credits, one less than was necessary to place him in the eleventh grade homeroom, was considered a tenth grader, but he could take the required eleventh grade United States history course because, with six credits, presumably he could graduate in two more years.

Because of these irregularities in grade placements, the totals given in Table V for enrollment in one grade level, minus the drop-outs and transfers at that grade level, will not necessarily result in the enrollment figure given for the next grade level.

TABLE V

ENROLLMENTS BY GRADE LEVEL OF CLASS OF 1958 AT SCHOOL Y

	Total Membership			Grade Level of Drop-out			Grade Level of Transfers		
Grade	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
8	230	180	410	42	16	58	6	4	10
9	171	157	328	21	11	32	8	14	22
10	131	140	271	24	17	41	10	5	15
11	97	116	213	16	13	29	1	4	5
12	78	100	178	3	5	8	1	1	2
Graduate	72	96	168						
Totals				106	62	168	26	28	54

That next grade level enrollment figure includes any new transfers into the school who were eligible to graduate in 1958. The figures in Table V include these irregularities.

A tally of the 390 individual sheets* revealed 410 cases of these individuals, including repeaters, enrolled in classes at the eighth grade level during the period involved in this study. This number included the following categories of students repeating the eighth grade: 5 students who had to repeat the eighth grade but later went on to graduate; 58 students who repeated the eighth grade but eventually dropped out of school; 6 students who repeated the eighth grade twice and later dropped out of school; and 6 students who repeated the eighth grade before transferring to another school.

Of the original 390 students involved in this study, 168, or 43.1 per cent, graduated; 168, or 43.1 per cent, dropped out before graduation; and 54, or 13.8 per cent, transferred to another school. The graduating class of 1958 included 72 boys and 96 girls, but the drop-outs from this class presented a different proportion, 106 boys and 62 girls dropping out, or nearly two boys to one girl.

The greatest number of drop-outs occurred at the eighth grade level, a total of 58; drop-outs at the tenth grade level were the second highest number, 41, which was 9 more than the number of drop-outs at the ninth grade level. The total drop-out picture revealed a big decrease from the eighth grade to the ninth

*This does not include 1953 eighth graders who were retained.

grade number, an increase at the tenth, a drop at the eleventh, and a sharp decline at the twelfth grade level.

The figures indicate that the school exerted less holding power in the eighth grade and lower high school grades than it did in the upper grades of high school.

III. SCHOLASTIC GRADES IN SUBJECT FIELDS

In this portion of the study an inventory will be presented showing the letter grades earned by the students in classes in which they were enrolled during their stay at School Y. The letter grade A, according to the description of grades on the student report card, signifies excellence in performance; B, superior performance; C, average performance; D, barely passing; F, failure.

The data for grades earned by the students in required courses will be presented first, followed by the grades earned in elective courses. The sequence used in describing the subject fields follows closely the sequence found in the student's cumulative folder and used in reporting his grades to his parents on his report card.

At the time of this study, the eighth grade was not a high school grade; it carried no credit toward graduation; and its curriculum was fixed for five of the six periods of the school day. The required subjects were: English, mathematics, science, social studies, and physical education. As a sixth subject, the

student had a choice from among the exploratory courses which included foreign language, industrial arts, home economics, music, and art. Those students who elected exploratory foreign language spent the entire school year in that study getting a brief introduction to each of three languages—Latin, French, and Spanish. Those students who did not elect foreign language elected two other areas in the exploratory courses and spent one semester in each area.

The requirements, at the time of this study, for graduation from high school, as stated by the Virginia State Board of Education, included the following:

Subject	Units
English	4
Mathematics	1
Science	1
United States History	1
United States Government	1
Electives	8
Total	16 units, plus 2 years of physical education

Field of English

English 8 combined the teaching of grammar and literature throughout the entire course, and the student earned one grade,

but no unit of credit, in the course. However, in English 9, 10, 11, and 12 the grammar was taught separately one semester for one half credit, and the literature was taught separately the other semester for one half credit. These two half credits were not averaged for one final grade in any English course in high school.

English 8 grammar included the eight parts of speech, tense, voice, and mood of verbs, case of pronouns, punctuation, and informal writing. The literature included short stories, essays, and poems, by predominantly American authors, dealing with the problem of growing up, adventure, and accepted values in American culture.

Each grade level of grammar in the four years of high school English included an intensive drill in review of the areas of grammar covered in the eighth grade, but, in addition, each grade level had an area for particular emphasis. In English 9 the emphasis was on the simple sentence and on written and oral expression in sentences, paragraphs, and short themes. In English 10 the emphasis in grammar was on compound and complex sentences, including the study of clauses, and on informal theme writing. Emphasis in English 11 centered on verbals, the infinitive, gerund, and participle, and upon writing longer themes, short stories, and short poems. English 12 grammar was a review of the previous grammar, and the writing included research projects with footnotes and bibliographies.

The literature content of English 9 included a study of short stories, essays, poems, and personal narratives by world authors, and the reading of Charles Dickens' Great Expectations. English 10 literature was world literature, and the larger units included Silas Marner, by George Eliot; Julius Caesar, by William Shakespeare; and romantic tales in verse, The Idylls of the King, by Alfred, Lord Tennyson. English 11 literature traced the history of American literature, either chronologically or by types of literature from its very beginning to the present day. English 12 literature included studies of all types of writing through each period from the Anglo-Saxon period and Beowulf to modern English writers.

A study of the figures in Table VI, Section A, shows that the girl students consistently made better grades in English than the boys made. There was no significant difference between the degree of success in grammar and the success in literature. The greatest amount of failure occurred in the eighth grade where 136 total cases of failure were experienced. Twelve of these cases were eventual graduates, but 111 of the cases of failure were eventual drop-outs. The data in Table VIII show that while about one twelfth (8.1 per cent) of the cases of English 8 made a grade of A, about one third (32.4 per cent) failed or made a grade of F. The percentages of those making A's remained fairly constant except in English 12 where only 4 per cent made A's as compared with the average of 7.9 per cent A's for all English levels. The

TABLE VI SECTION A ENGLISH

SCHOLASTIC GRADES EARNED BY MEMBERS OF SCHOOL Y, CLASS OF 1958

SUBJECT FIELD \ GRADE		A				B				C				D				F			
		G	D/O	TR.	TOT.	G	D/O	TR.	TOT.	G	D/O	TR.	TOT.	G	D/O	TR.	TOT.	G	D/O	TR.	TOT.
		M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F	M F
ENGLISH 8		6 14	1 2	0 11	7 27	11 29	2 7	3 5	16 41	18 34	10 12	3 12	31 58	24 10	37 22	5 6	66 38	8 4	84 27	9 4	101 35
ENGLISH 9	GR.	5 18	0 2	1 6	6 26	16 42	4 9	3 7	23 58	28 26	23 19	6 8	57 53	24 9	32 13	1 6	57 28	6 2	29 6	4 2	39 10
	LIT.	6 18	1 2	1 6	8 26	19 39	5 7	1 7	25 53	25 25	20 17	7 6	52 48	24 13	31 16	2 6	57 35	9 1	28 14	3 6	40 21
ENGLISH 10	GR.	7 17	0 2	0 2	7 21	16 37	1 3	0 8	17 48	22 24	8 9	1 3	31 36	27 19	24 14	3 3	54 36	10 1	37 4	0 2	47 7
	LIT.	6 16	1 2	0 2	7 20	19 37	2 4	2 6	23 47	20 28	9 6	0 8	29 42	28 15	21 17	1 0	50 32	9 0	33 7	2 2	44 9
ENGLISH 11	GR.	3 9	0 0	0 0	3 9	16 37	1 1	0 4	17 42	25 29	5 3	0 4	30 36	30 20	6 4	0 4	36 28	18 4	15 7	3 0	36 11
	LIT.	6 13	0 0	0 0	6 13	13 39	1 0	0 2	14 41	22 24	1 4	0 6	23 34	29 19	8 2	0 2	37 23	18 5	16 8	3 2	37 15
ENGLISH 12	GR.	4 10	0 0	0 0	4 10	16 37	2 0	0 0	18 37	24 38	2 1	1 1	27 40	26 11	0 0	0 0	26 11	1 0	1 0	0 2	2 2
	LIT.	1 6	0 0	0 0	1 6	11 30	1 1	0 0	12 31	34 45	1 1	0 0	35 46	24 16	0 0	0 0	24 16	1 0	1 0	0 2	2 2
SUB-TOTAL		44 121	3 10	2 27	49 158	137 327	19 32	9 39	165 398	218 273	79 72	18 48	315 393	236 132	159 88	12 27	407 247	80 17	244 73	24 22	348 112
GRAND TOTAL		165	13	29	207	464	51	48	563	491	151	66	708	368	247	39	654	97	317	46	460

LEGEND - Letter Grade Value: A: 95-100 B: 84-94 C: 81-87 D: 75-80 F: Below 75 G: Graduate D/O: Drop-out TR: Transfer TOT: Total M: Male F: Female

percentage of B's earned in all levels of English was 21.6, but the English 8 percentage of B's was 13.6. Fewer people made C in English 8, only 21.2 per cent, as compared with the 27.7 per cent for all levels of English. The number making D's, 25.1 per cent, was fairly constant throughout the levels. At the twelfth grade level 2.3 per cent made F, and at the eighth grade level 32.4 per cent made F as compared with the average of all grades of 17.7 per cent F's.

The totals in Table VI, Section A, show that while 165 cases of graduates made A's in the five years of English and 13 cases of those who dropped out of school made A's in English, 97 graduate cases made F in English in the five levels, and 317 drop-out cases made F in English in the five levels. The majority of the students earned grades of B, C, or D.

All figures given for English in the four years of high school represent twice the number of people involved in the letter grades because of the separate grammar and literature grades.

Field of Mathematics

Math 8, required of all eighth graders, was a course in general arithmetic involving the manipulation of figures and containing many word problems. It covered units on insurance and percentages and gave brief introductions to algebra and geometry.

Math 9 was also a general course in arithmetic and involved manipulations of figures in areas of importance in daily living for the average citizen.

TABLE VI (continued) SECTION B MATHEMATICS

GRACE / SUBJECT FIELD	A								B								C								D								F							
	G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
MATH. 8	7	12	0	1	0	6	7	19	19	24	7	3	3	7	29	34	15	25	14	13	4	20	33	58	16	19	35	16	7	4	58	39	8	9	81	37	7	2	96	48
GEN. MATH. 9	1	1	1	1	0	0	2	2	4	11	2	4	0	0	6	15	12	18	15	5	2	9	29	32	10	14	24	15	2	4	36	33	5	10	17	16	4	4	26	30
ALGEBRA 1	3	8	0	1	1	2	4	11	9	25	1	3	1	2	11	30	24	17	5	0	2	4	31	21	17	12	10	0	3	4	30	16	17	7	16	8	2	2	35	17
ALGEBRA 2	1	3	0	0	0	0	1	3	6	7	0	0	0	0	6	7	16	12	0	0	0	0	16	12	11	1	2	0	0	0	13	1	9	0	0	1	2	0	11	1
PL. GEOM.	5	10	0	0	0	0	5	10	12	9	0	0	0	0	12	9	11	9	1	0	1	0	13	9	14	2	2	0	2	0	18	2	9	2	8	0	0	0	17	2
SOL. GEOM.	1	2	0	0	0	0	1	2	2	0	0	0	0	0	2	0	6	1	0	0	0	0	6	1	5	0	0	0	0	0	5	0	3	1	0	0	0	0	3	1
TRIG.	1	2	0	0	0	0	1	2	3	0	0	0	0	0	3	0	4	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0
SR. MATH.	9	12	0	0	0	0	9	12	13	14	1	1	0	2	14	17	2	2	1	0	0	0	3	2	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0
SUB-TOTAL	28	50	1	3	1	8	30	61	68	90	11	11	4	11	83	112	90	84	36	18	9	33	135	135	78	48	73	31	14	12	165	91	56	29	122	62	15	8	193	99
GRAND TOTAL	78		4		9		91		158		22		15		195		174		54		42		270		126		104		26		256		85		184		23		292	

LEGEND - Letter Grade Value: A = 95-100 B = 84-94 C = 81-87 D = 75-80 F = Below 75 G = Graduate D/O = Drop-out TR = Transfer TOT = Total M = Male F = Female

Practically every student attempted to fulfill at the ninth grade level the requirement of one unit of mathematics for high school graduation by electing either Math 9 or Algebra I.

Table VI, Section B, figures for Math 8 show that the girls again made consistently higher grades than the boys. Nineteen girls made A as compared with 7 boys, but 57 boys and 39 girls made D. Drop-outs were responsible for 118 of the 144 total cases of F's in the eighth grade, but 17 cases of future graduates made F on English 8 also. The percentage of failure, Table VIII, in eighth grade mathematics was 34.2 per cent; the percentage of A's, 6.2.

Of the 417 cases enrolled, during the period of this study, in what is generally considered mathematics of the ninth grade level, 50.6 per cent were enrolled in Math 9 and 49.4 per cent in Algebra I. In the Math 9 group only 4 earned A's as compared with 56 F's; eventual drop-outs earned 33 of those F's, and 15 of the F's were graduate cases. The percentage of failure in Math 9, as given in Table VIII, was 26.6, as compared with 1.9 per cent A's. Almost three fourths (71.5 per cent) of the Math 9 enrollment made B, C, and D.

The group enrolled in Algebra I, which was approximately one half (49.4 per cent) of those eligible by grade level, earned 15, or 7.3 per cent A's; and 52, or 25.2 per cent, made F's. Thirty-four cases of future graduates and 24 drop-outs failed. Algebra I had a 74.8 percentage of those enrolled passing.

Those who successfully completed Algebra I were eligible to elect higher mathematics courses, and 46 per cent of these elected Algebra II; 69 per cent elected plane geometry; 26 per cent elected solid geometry and trigonometry. Only 9.8 per cent of the students enrolled in all mathematics at the ninth grade level elected four years of mathematics; and 7.9 per cent of that original ninth grade enrollment successfully completed four years of mathematics.

Senior Math, a general mathematics course, was elected by 59 seniors. Fifty-eight of these passed.

The total incidence of mathematics failure in Table VI, Section B, was 292 for the five years. Drop-outs were responsible for 184 cases of this failure, and 85 were graduates.

A study of Table VI, Section B, reveals the fact that fewer girls than boys enrolled in mathematics higher than the introductory algebra level. In the top three courses in mathematics, there were 135 boys enrolled as compared with 61 girls. The grades of B, C, and D were earned by most of the students enrolled in any mathematics course.

Field of Science

Science 8, required of all members of the eighth grade, was a general science course dealing with the physical sciences, some biology and some chemistry. The figures in Table VI, Section C, show that 26 students made A's, 93 made C's, and 134 made F's; but

TABLE VI (continued) SECTION C SCIENCE

SUBJECT FIELD / GRACE	A								B								C								D								F							
	G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
SCIENCE 8	10	10	1	3	0	2	11	15	14	25	3	2	3	12	20	39	17	31	21	8	4	12	42	51	21	12	30	19	5	7	56	38	7	6	77	33	6	5	90	44
GEN. SCIENCE 9	4	9	0	1	1	4	5	14	13	25	3	4	1	4	17	33	24	23	11	9	4	4	39	36	9	6	27	12	2	7	38	25	6	1	24	17	3	3	33	21
BIOLOGY	5	11	0	0	0	2	5	13	11	18	2	2	0	0	13	20	6	16	2	0	0	3	8	19	13	7	2	4	0	4	15	15	8	1	19	6	3	3	30	10
CHEMISTRY	3	3	0	0	0	0	3	3	10	14	0	0	0	2	10	16	9	10	0	0	0	0	9	10	8	6	0	0	0	1	8	7	1	0	1	0	1	0	3	0
PHYSICS	3	0	0	0	0	0	3	0	8	1	0	0	0	0	8	1	9	0	0	0	0	0	9	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
SUB-TOTAL	25	33	1	4	1	8	27	45	56	83	8	8	4	18	68	109	65	80	34	17	8	19	107	116	53	31	59	35	7	19	119	85	22	8	121	56	13	11	156	75
GRAND TOTAL	58		5		9		72		139		16		22		177		145		51		27		223		84		94		26		204		30		177		24		231	

LEGEND - Letter Grade Value: A: 95-100 B: 84-94 C: 81-87 D: 75-80 F: Below 75 G: Graduate D/O: Drop-out TR: Transfer TOT: Total M: Male F: Female

110 of those F's were made by students who later dropped out. Table VIII shows 33.0 per cent failure at the eighth grade level in science as compared with 6.4 per cent A's. Girls consistently made higher grades in Science 8 where girl failures were half that of the boys.

To satisfy the state requirement of one science credit for high school graduation, most of the students elected Science 9, which is a general science course, in the ninth grade or elected biology in the ninth or tenth grade. In the group being studied, 79.5 per cent of the enrollment in ninth grade classes elected Science 9 with 79.3 per cent of those passing. From the enrollment at the ninth and tenth grade levels, 26 per cent elected biology, and 73 per cent of these passed; from the junior class enrollment, 32.4 per cent elected chemistry with 95.7 per cent of these passing; and from the senior enrollment 12.9 per cent elected physics with 100 per cent passing. Of the total cases enrolled in general science, biology, chemistry, and physics courses, 4.4 per cent elected four years of the sciences.

Only one course had a stated prerequisite. In order to take chemistry, a student must have passed Algebra I with at least a grade of C. The number passing Algebra I with a C or better was 108, but only 69 took chemistry.

Enrollments by sex in the science area, as revealed in Table VI, Section C, showed almost even distribution in each level except in physics where 22 boys and one girl were enrolled.

There were 72 A's in the total science field as compared with 231 failures, 177 of which were earned by drop-outs and 30 by graduates. Table VIII shows that, in the required science area, which is either Science 9 or Biology for most students, there was a 27.0 per cent failure in Biology and 20.7 per cent in Science 9.

The greatest number of students enrolled in all science courses earned B's, C's, and D's, the middle grades.

Field of Social Studies

Social Studies 8, required of all eighth grade students, involved the study of United States history with special emphasis on Virginia history and the Virginia form of government. Over half (56.1 per cent) of the eighth grade enrollment earned B, C, and D, while 5.9 per cent made A's, and 38 per cent failed. Drop-outs were responsible for 121 of the 162 cases of failure at this level, and 25 who later graduated failed Social Studies 8. Twice as many boys as girls failed.

World Geography and World History, courses normally elected in the ninth or tenth grade, but offered in any year, were elected by 17 per cent and 10.5 per cent respectively of the ninth and tenth grade enrollments. World Geography students experienced 23.4 per cent failure with only two people making A and three making B.

World History students experienced 21.3 per cent failure, but 14 students made A, and 18 made B according to Table VI, Section D.

In United States History, required at the eleventh grade level of all prospective graduates, almost three fourths (74.4 per cent) of those enrolled made B, C, or D. Exactly 8.1 per cent made A while 17.4 per cent failed. Again the girls outnumbered the boys 2 to 1 in making A's and B's.

United States Government, required at the twelfth grade level of all prospective graduates, had the lowest percentage of failure in the entire social studies field according to Table VIII. The figures show that 3.4 per cent failed government while 9 per cent made A's, and 41.3 per cent made C's.

The four areas of instruction covered thus far--English, mathematics, science, and social studies--complete the area of required academic subjects.

Foreign Language Field

The study of foreign language at any grade level was purely a matter of personal choice in the school being studied. The eighth grade exploratory foreign language course, as previously stated, gave brief introductions to each of three languages, Latin, French, and Spanish, spending about three months with each language. Presumably this enabled the student to make a wise choice concerning future study of a foreign language.

TABLE VI (continued) SECTION D SOCIAL STUDIES

GRADE / SUBJECT FIELD	A								B								C								D								F							
	G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
SOC. STUDIES 8	8	8	1	2	0	6	9	16	13	28	6	6	3	8	22	42	12	24	18	9	5	11	35	44	16	20	33	17	4	6	53	43	17	8	83	38	9	7	109	53
WORLD HISTORY	4	10	0	0	0	0	4	10	4	11	1	0	1	1	6	12	7	7	1	1	1	2	9	10	10	5	8	3	2	2	20	10	3	1	15	1	2	0	20	2
WORLD GEOG.	1	1	0	0	0	0	1	1	1	1	1	0	0	0	2	1	2	2	7	3	1	0	10	5	2	4	12	5	4	2	18	11	1	0	8	3	1	2	10	5
U.S. HISTORY	6	12	1	0	0	0	7	12	13	22	0	1	0	2	13	25	22	32	3	2	0	3	25	37	29	30	8	6	0	2	37	38	10	3	18	6	2	2	30	11
U.S. GOVT.	7	7	0	0	0	2	7	9	17	32	0	0	0	0	17	32	30	43	0	0	0	0	30	43	16	14	1	1	0	1	17	16	0	0	4	1	0	1	4	2
SUB-TOTAL	26	38	2	2	0	8	28	48	48	94	8	7	4	11	60	112	73	108	29	15	7	16	109	139	73	73	62	32	8	13	143	118	31	12	128	49	14	12	173	73
GRAND TOTAL	64		4		8		76		142		15		15		172		181		44		23		248		146		94		21		261		43		177		26		246	

LEGEND - Letter Grade Value: A = 95-100 B = 84-94 C = 81-87 D = 75-80 F = Below 75 G = Graduate D/O = Drop-out TR = Transfer TOT = Total M = Male F = Female

At the eighth grade level, 38 per cent of the students enrolled elected exploratory foreign language, and 76 per cent of these passed. Girls made up 60 per cent of the enrollment, and 7 per cent of these girls failed.

The first year of a foreign language could be elected at any grade level in the high school, but most of the students who took a foreign language began to study it in the ninth grade. In the class being studied, 11.9 per cent of the ninth grade enrollment elected Latin, and 61.5 per cent of these passed; 16.2 per cent elected Spanish, and 81.7 per cent of these passed; 13.7 per cent elected French, and 83 per cent of these passed. The three foreign languages were elected by 41.7 per cent of the ninth grade, and 76.6 per cent of these passed.

Only 48.9 per cent of those enrolled in first year language elected the second year of the language, or 24.7 per cent of the tenth grade elected a second year language. Of these, 94 per cent passed.

The greatest degree of failure in the first year of a language occurred in Latin I, but no failure occurred in Latin II. French II showed the highest percentage of failure in a second year language with 11.5 per cent not passing.

Enrollments in foreign language courses, Table VI, Section E, show about three boys for every four girls in this area; yet the failures for the boys were more than twice the number of failures for the girls.

TABLE VI (continued) SECTION E FOREIGN LANGUAGE

SUBJECT FIELD / GRACE		A								B							
		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
EXPLORATORY LANGUAGE	8	4	18	0	3	2	6	6	27	4	13	2	6	0	10	6	29
LATIN	1	1	2	0	0	0	0	1	2	3	3	0	0	0	0	3	3
LATIN	2	1	2	0	0	0	0	1	2	0	3	0	0	0	0	0	3
FRENCH	1	1	5	0	0	0	0	1	5	0	8	0	1	1	0	1	9
FRENCH	2	1	5	0	0	0	0	1	5	0	7	0	1	0	0	0	8
SPANISH	1	2	3	0	0	0	2	2	5	2	6	0	0	2	2	2	8
SPANISH	2	1	2	0	0	0	0	1	2	1	5	0	0	0	0	1	5
SUB-TOTAL		11	37	0	3	2	8	13	48	10	45	2	8	1	12	13	65
GRAND TOTAL		48		3		10		61		55		10		13		78	

SUBJECT FIELD / GRACE		C								D							
		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
EXPLORATORY LANGUAGE	8	6	8	4	3	1	3	11	14	6	4	5	7	1	2	12	13
LATIN	1	3	1	0	0	1	0	4	1	4	4	1	1	0	0	5	5
LATIN	2	4	0	0	0	0	0	4	0	3	1	0	0	0	0	3	1
FRENCH	1	1	11	2	0	0	0	3	11	3	3	0	0	0	2	3	5
FRENCH	2	0	4	0	0	0	0	0	4	2	3	0	0	0	0	2	3
SPANISH	1	9	6	0	0	1	0	10	6	5	2	0	0	1	2	6	4
SPANISH	2	4	4	0	0	0	0	4	4	6	3	0	0	0	0	6	3
SUB-TOTAL		27	34	6	3	3	3	36	40	29	20	6	8	2	6	37	34
GRAND TOTAL		61		9		6		76		49		14		8		71	

SUBJECT FIELD / GRACE		F							
		G		D/O		TR.		TOT.	
		M	F	M	F	M	F	M	F
EXPLORATORY LANGUAGE	8	7	4	16	6	4	0	27	10
LATIN	1	5	3	3	2	0	2	8	7
LATIN	2	0	0	0	0	0	0	0	0
FRENCH	1	4	1	2	0	0	0	6	1
FRENCH	2	2	0	1	0	0	0	3	0
SPANISH	1	3	1	1	1	2	2	6	4
SPANISH	2	1	0	0	0	0	0	1	0
SUB-TOTAL		22	9	23	9	6	4	51	22
GRAND TOTAL		31		32		10		73	

LEGEND – Letter Grade Value: A = 95-100 B = 84-94 C = 81-87 D = 75-80 F = Below 75 G = Graduate D/O = Drop-out TR = Transfer TOT = Total M = Male F = Female

Field of Business Education

The offerings in the field of business education included nine separate courses. The business education student could elect the first course, general business, in the ninth grade, or he could take this course along with first year typing in the tenth grade. Thereafter he could elect from bookkeeping and shorthand. After making a C in Typing II, he could learn the use of office machines, or he could take this course concurrently with Typing II if he made a B or better in Typing I. Vocational Office Training, which included the office machines instruction, was open to seniors only. In the VOT program, the student spent half the day in school taking required subjects and about three hours each afternoon in supervised work activities in business offices in industries in the area.

The students who elected one or more business courses were 52.7 per cent of the enrollments in the four years of high school; of this group 86 per cent passed.

The figures in Table VI, Section F, show that the largest number of students taking business courses were enrolled in general business, 112 girls and 63 boys. Nineteen of these students made A in the course, 43 earned C, and 23 made F. Typing I had 138 students enrolled, and 31 of these failed. Sixty-three were enrolled in Typing II, and 61 of these passed.

TABLE VI (continued) SECTION F BUSINESS

GRADE / SUBJECT FIELD	A								B								C								D								F							
	G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
BOOKKEEPING 1	1	4	0	1	0	0	1	5	3	10	0	0	0	2	3	12	2	14	0	2	0	2	2	18	3	6	0	2	0	2	3	10	0	3	2	4	0	0	2	7
BOOKKEEPING 2	1	0	0	0	0	0	1	0	0	3	0	0	0	0	0	3	2	2	0	1	0	0	2	3	1	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0
TYPING 1	0	4	0	0	0	2	0	6	1	18	0	2	0	1	1	21	4	35	1	11	0	1	5	47	5	12	4	5	0	1	9	18	0	9	3	14	0	5	3	28
TYPING 2	0	1	0	0	0	2	0	3	0	8	0	0	0	0	0	8	2	38	0	3	0	0	2	41	2	4	0	1	0	0	2	5	0	1	1	0	0	0	1	1
SHORTHAND 1	0	2	0	0	0	0	0	2	0	5	0	0	0	0	0	5	0	5	0	0	0	2	0	7	0	4	0	0	0	0	0	4	0	8	0	1	0	0	0	9
SHORTHAND 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0
OFFICE MACHINES	0	1	0	0	0	0	0	1	0	5	0	0	0	0	0	5	0	14	1	0	0	0	1	14	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0
V. O. T.	0	1	0	0	0	0	0	1	0	3	0	0	0	2	0	5	0	7	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GEN. BUSINESS	3	12	1	0	0	3	4	15	7	36	0	7	0	2	7	45	8	15	14	6	0	0	22	21	8	4	9	9	0	8	17	21	1	0	12	10	0	0	13	10
SUB-TOTAL	5	25	1	1	0	7	6	33	11	88	0	9	0	7	11	104	18	134	16	23	0	5	34	162	19	38	13	17	0	11	32	66	1	21	18	29	0	5	19	55
GRAND TOTAL	30		2		7		39		99		9		7		115		152		39		5		196		57		30		11		98		22		47		5		74	

LEGEND - Letter Grade Value: A = 95-100 B = 84-94 C = 81-87 D = 75-80 F = Below 75
G = Graduate D/O = Drop-out TR = Transfer TOT = Total M = Male F = Female

From the number taking Typing I, 45 per cent went on to Typing II; 19 per cent of those enrolled in Bookkeeping I elected Bookkeeping II; and 30 per cent of the Shorthand I group took Shorthand II. The largest amount of failure took place in the first year levels of the business courses. Only two students failed in any second year business course.

More girls than boys elected business courses, and the grade of C was earned by the largest number of these students.

Home Economics Field

The exploratory home economics in the eighth grade, an elective for one semester, included elementary training in both cooking and sewing. Forty-one boys and 108 girls elected the course, and 21 of the group made A, and 76 made B. Only 7 failed the course, 6 of whom were boys who became drop-outs, according to figures in Table VI, Section G.

Home Economics I, II, and III at the high school level each offered units in cooking, sewing, nutrition, and child care. Girls who elected home economics courses were 36.2 per cent of the total female enrollment. According to Table VI, Section G, only one girl enrolled in any home economics course failed, and she became a drop-out.

Boys' Home Economics, which gave practical training to the boys in the culinary arts and prepared them for usefulness in the home, was elected by 4 per cent of the boys in the school, and the one boy who failed was a future drop-out.

TABLE VI (continued) SECTION G HOME ECONOMICS

SUBJECT FIELD / GRACE	A								B								C								D								F							
	G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
EXPLORATORY HOME EC. 8	2	11	0	2	1	5	3	18	10	33	1	13	3	16	14	62	4	10	7	13	0	3	11	26	2	0	4	2	0	0	6	2	0	0	6	0	1	0	7	0
HOME EC. 1	0	1	0	0	0	2	0	3	0	35	0	5	0	6	0	46	0	33	0	16	0	0	0	49	0	2	0	6	0	3	0	11	0	0	0	1	0	0	0	1
HOME EC. 2	0	5	0	0	0	0	0	5	0	16	0	4	0	2	0	22	0	18	0	2	0	2	0	22	0	5	0	4	0	1	0	10	0	0	0	0	0	2	0	2
HOME EC. 3	0	2	0	0	0	0	0	2	0	6	0	3	0	2	0	11	0	1	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
HOME & FAMILY LIVING	0	5	0	0	0	0	0	5	4	10	0	0	0	0	4	10	4	2	0	1	0	0	4	3	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
BOYS HOME EC.	2	0	0	0	0	0	2	0	6	0	1	0	0	0	7	0	3	0	2	0	0	0	5	0	1	0	3	0	0	0	4	0	0	0	1	0	0	0	1	0
SUB-TOTAL	4	24	0	2	1	7	5	33	20	100	2	25	3	26	25	151	11	64	9	32	0	5	20	101	4	8	7	12	0	4	11	24	0	0	7	1	1	2	8	3
GRAND TOTAL	28		2		8		38		120		27		29		176		75		41		5		121		12		19		4		35		0		8		3		11	

LEGEND - Letter Grade Value: A: 95-100 B: 84-94 C: 81-87 D: 75-80 F: Below 75 G: Graduate D/O: Drop-out TR: Transfer TOT: Total M: Male F: Female

Home and Family Living, open to seniors only, gave no practical training in duties concerned with homemaking; rather it attempted to prepare students who were near graduation to assume roles of responsibility, to understand some of the problems concerned with their future roles as married citizens, homemakers, and parents. Fifteen per cent of the seniors elected this course, and 100 per cent passed.

Field of Art

The classes in the field of art were strictly elective from the eighth grade to the twelfth. In the eighth grade, the exploratory art course was one semester in duration.

At the eighth grade level, 85 students, or 20.7 per cent, elected art, and 61 of these earned a grade of C or better; 9 failed the course, but these were future drop-outs.

According to Table VI, Section H, 13 of the 14 cases of failure in all art courses were drop-outs. Of the 47 passing Art I, 21 elected Art II, and 2 elected Art III.

Approximately 11 per cent of the student body enrolled in art classes during the four years of high school, and 94.5 per cent passed.

Industrial Arts Field

The first year shop and mechanical drawing courses were elective at any grade level in high school; the exploratory shop was elective for one semester in the eighth grade. A total of 101 boys and 2 girls elected exploratory shop, and 97 passed. Of the 6 failures,

TABLE VI (continued) SECTION H ART

SUBJECT FIELD / GRADE	A								B								C								D								F							
	G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
EXPLORATORY ART 8	3	3	0	0	0	0	3	3	3	8	2	4	0	4	5	16	5	6	7	5	3	8	15	19	4	2	6	2	1	0	11	4	0	0	8	1	0	1	8	1
ART 1	1	4	0	0	0	0	1	4	6	12	7	2	1	2	14	16	3	1	3	0	0	0	6	1	0	0	4	1	0	0	4	1	0	0	2	0	1	0	3	0
ART 2	1	4	1	0	0	0	2	4	1	2	2	1	0	0	3	3	3	2	1	0	1	0	5	2	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
ART 3	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CERAMICS	1	7	0	0	0	0	1	7	3	13	0	1	0	0	3	14	5	1	2	0	0	0	7	1	3	0	1	0	0	0	4	0	0	0	2	0	0	0	2	0
ARTS & CRAFTS	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	4	0	1	1	0	0	5	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
SUB-TOTAL	7	18	1	0	0	0	8	18	14	35	11	8	1	6	26	49	20	10	15	6	4	8	39	24	8	2	13	3	1	0	22	5	0	0	12	1	1	0	13	1
GRAND TOTAL	25		1		0		26		49		19		7		75		30		21		12		63		10		16		1		27		0		13		1		14	

LEGEND - Letter Grade Value: A: 95-100 B: 84-94 C: 81-87 D: 75-80 F: Below 75
G: Graduate %: Drop-out TR: Transfer TOT: Total M: Male F: Female

TABLE VI (continued) SECTION I — INDUSTRIAL ARTS JOURNALISM SPEECH

SUBJECT FIELD / GRADE	A								B								C								D								F							
	G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
EXPLORATORY SHOP 8	7	0	5	0	1	1	13	1	19	0	11	0	4	0	34	0	18	0	17	0	1	1	36	1	1	0	8	0	3	0	12	0	0	0	3	0	3	0	6	0
WOOD SHOP 1	2	0	1	0	0	0	3	0	9	2	5	0	0	0	14	2	14	0	14	0	1	0	29	0	3	0	10	0	0	0	13	0	0	0	4	0	1	0	5	0
WOOD SHOP 2	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5	0	7	0	8	0	0	0	15	0	4	0	3	0	0	0	7	0	0	0	1	0	0	0	1	0
MECH. DRAW. 1	7	0	1	0	0	0	8	0	10	0	5	0	0	0	15	0	18	2	8	0	1	0	27	2	8	1	11	0	1	0	20	1	0	1	9	0	0	0	9	1
MECH. DRAW. 2	2	0	0	0	0	0	2	0	13	0	0	0	0	0	13	0	3	0	0	0	1	0	4	0	3	0	1	0	0	0	4	0	0	0	2	0	0	0	2	0
SUB-TOTAL	18	0	7	0	1	1	26	1	56	2	21	0	4	0	81	2	60	2	47	0	4	1	111	3	19	1	33	0	4	0	56	1	0	1	19	0	4	0	23	1
GRAND TOTAL	18		7		2		27		58		21		4		83		62		47		5		114		20		33		4		57		1		19		4		24	
SPEECH	1	8	0	0	1	2	2	10	8	15	0	1	0	0	8	16	8	3	1	0	0	0	9	3	2	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0
JOURNALISM	1	3	0	0	0	0	1	3	1	1	0	0	0	2	1	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0

LEGEND – Letter Grade Value: A: 95-100 B: 84-94 C: 81-87 D: 75-80 F: Below 75 G: Graduate D/O: Drop-out TR: Transfer TOT: Total M: Male F: Female

3 were future drop-outs, and 3 transferred later, according to Table VI, Section I.

Two girls elected and passed Woodshop I, and 4 girls elected Mechanical Drawing I; 3 of these passed. One boy failed shop work, but 19.7 per cent of the male student body elected the subject. Mechanical Drawing attracted 22.6 per cent of the boys, and 89 per cent passed.

As in the subjects previously described, the most common grade was C, and most of the failure cases were students who later dropped out of school.

Speech and Journalism in the Language Arts Area

Speech and journalism, of the language arts area, were elective from the tenth grade up. In speech classes the student received training in public speaking and debating, and he learned to prepare notes for these. He learned to evaluate and give constructive criticism of speeches of others.

The figures in Table VI, Section I, show that 51 students in the class being studied elected speech, and all of these passed.

Journalism was open to students with adequate grammar background, to students who liked to write and wanted to work hard. These students learned the fundamentals of newspaper writing and wrote and edited the bi-monthly school newspaper. Nine of the students eligible by grade level elected the course in Journalism, and all passed.

Field of Music

At the eighth grade level, the exploratory course in music was elective for one semester. This was elected by 28.3 per cent of the eighth grade enrollment, by more girls than boys, and 81 per cent passed. However, according to Table VI, Section J, there were 22 total cases of failure at this level, 17 of which were later drop-outs.

In the four years of high school, 115 students, or 11.6 per cent, enrolled in vocal music with 96.6 per cent passing; 5.7 per cent enrolled in instrumental music, and one person failed, a drop-out. Eight girls elected and passed A Cappella choir.

Field of Physical Education

Physical education was required by state regulation at the eighth, ninth, and tenth grade levels for all who were physically able to exercise. Health study was included in this program.

In each grade level, according to Table VI, Section J, the greatest number of students made the grade of B, with those getting A the second largest group. Of the 37 failures in physical education classes, 32 cases were eventual drop-outs, four were future transfers, and one was a future graduate. The failure at the eighth grade level was 6.3 per cent of those enrolled, and in the ninth and tenth grades, 1.8 per cent.

IV. REVIEW OF ALL LETTER GRADE DATA

The tabulation of all letter grades earned by the 390 individuals in the five grade levels in all classes, exclusive of physical education, revealed a total of 7,726 classes in which the total

TABLE VI (continued) SECTION J MUSIC PHYSICAL EDUCATION

SUBJECT FIELD / GRADE	A				B				C				D				F			
	G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.		G		D/O		TR.		TOT.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
EXPLORATORY MUSIC 8	5	11	3	3	0	4	8	18	3	9	1	3	0	2	4	14	7	12	2	9	0	0	9	21	1	5	4	8	0	2	5	15	2	0	12	5	1	2	15	7
BAND 1-2	3	2	2	0	0	0	5	2	10	4	8	0	0	0	18	4	13	0	5	1	0	0	18	1	1	0	6	1	0	0	7	1	0	0	1	0	0	0	1	0
3-4																																								
CHORUS 1-2	5	2	1	0	0	0	6	2	13	17	1	9	0	4	14	30	15	5	3	6	0	4	18	15	3	5	2	4	0	2	5	11	0	0	0	3	0	0	0	3
3-4																																								
A CAPPELLA	0	2	0	0	0	0	0	2	0	4	1	1	0	0	1	5	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
SUB-TOTAL	13	17	6	3	0	4	19	24	26	34	11	13	0	6	37	53	35	17	12	16	0	4	47	37	5	10	12	13	0	4	17	27	2	0	13	9	1	2	16	11
GRAND TOTAL	30		9		4		43		60		24		6		90		52		28		4		84		15		25		4		44		2		22		3		27	
PHYS. ED. 8	12	36	9	6	6	11	27	53	32	38	28	11	5	14	65	63	7	8	23	12	6	8	36	28	1	1	17	13	2	2	20	16	0	0	8	16	2	0	10	16
PHYS. ED. 9	15	22	3	4	1	2	19	28	35	52	28	16	6	12	69	80	12	15	18	9	4	6	34	30	0	3	9	5	1	0	10	8	0	1	2	3	0	2	2	6
PHYS. ED. 10	11	43	6	4	1	5	18	52	42	40	18	9	2	2	62	51	7	10	6	5	1	1	14	16	0	1	1	1	0	0	1	2	0	0	3	0	0	0	3	0
SUB-TOTAL	38	101	18	14	8	18	64	133	109	130	74	36	13	28	196	194	26	33	47	26	11	15	84	74	1	5	27	19	3	2	31	26	0	1	13	19	2	2	15	22
GRAND TOTAL	139		32		26		197		239		110		41		390		59		73		26		158		6		46		5		57		1		32		4		37	

LEGEND - Letter Grade Value: A: 95-100 B: 84-94 C: 81-87 D: 75-80 F: Below 75 G: Graduate D/O: Drop-out TR: Transfer TOT: Total M: Male F: Female

membership was enrolled. The students passed 6,274 of these classes, or 81.2 per cent of the classes, and failed 1,452, or 18.8 per cent of the classes.

The students who dropped out of school were enrolled in 2,424 of the 7,726 classes. The figures in Table VIII show that when the letter grades earned by the students who dropped out of school were removed from the total letter grades earned by the membership, the percentage of A's in the five year period rose from 9.0 per cent to 12.2 per cent; the B's from 22.6 per cent to 28.9 per cent; the C's from 27.5 per cent to 30.8 per cent; the D's dropped from 22.1 per cent to 19.5 per cent; and the F's from 18.8 to 8.6 per cent.

The figures for the drop-out population alone show that the drop-outs earned 2 per cent A's; 8 per cent B's; 20 per cent C's; 29 per cent D's; and 41 per cent F's.

According to the averages made to obtain the rank in the senior class for the graduates of 1958, five graduates had a 95 or better average for the four years of high school; 23 graduates averaged between 90-94; 66 averaged between 85-89; 70 averaged between 80-84; and 4 averaged between 75-79.

The averages for rank in the senior class did not include any eighth grade subjects or physical education grades because neither counted toward the 16 units required for graduation.

TABLE VII

DISTRIBUTION AND PERCENTAGES OF GRADES EARNED IN ALL SUBJECTS BY THE CLASS OF 1958

	TOTAL MEMBERSHIP		MEMBERSHIP MINUS DROP-OUTS	
GRADE	NUMBER	PERCENTAGE	NUMBER	PERCENTAGE
A	696	9.0	646	12.2
B	1752	22.6	1537	28.9
C	2115	27.5	1629	30.8
D	1711	22.1	1034	19.5
F	1452	18.8	456	8.6
Total	7726	100.0	5302	100.0

The results of the letter grade survey divide the group being studied into two separate categories, the successful students, most of whom graduated, and the drop-outs, most of whom failed.

The record for the membership, minus the drop-outs, was 71.9 per cent in average and above average grades earned in the five years, another 19.5 per cent barely passing, and total passing 91.4 per cent.

Percentages of letter grades earned in required courses, as given in Table VIII, indicate that required subjects in the lower grade levels of school had higher frequencies in failure than the upper levels. The drop-outs, who earned most of the failing grades at the lower levels, are not numbered in the upper level percentages. The comparison of average percentages in required subjects with those in elective subjects shows that these students failed more required subjects than elective courses.

V. A.C.E. TEST RESULTS

The 1953 high school edition of the A.C.E. test, American Council on Education Psychological Examinations, was administered in October, 1955, to all students in tenth grade homerooms in School Y. The number taking the test was 221. This number does not match the number given in Table V, page 24, because Table V figures were not based on homeroom membership, but on cases of students in the class of 1958 taking tenth grade work during the five year period.

TABLE VIII

PERCENTAGES OF LETTER GRADES EARNED IN

REQUIRED COURSES

Subject	A	B	C	D	F	TOTAL
English 8	8.1	13.6	21.2	24.7	32.4	100.0
Eng. 9 g.*	8.9	22.8	30.8	23.8	13.7	100.0
Eng. 9 l.**	9.4	21.5	27.6	24.7	16.8	100.0
Eng. 10 g.	9.2	21.5	22.0	29.6	17.7	100.0
Eng. 10 l.	8.9	23.1	23.4	27.1	17.5	100.0
Eng. 11 g.	4.9	23.8	26.6	25.8	18.9	100.0
Eng. 11 l.	7.8	22.7	23.4	24.7	21.4	100.0
Eng. 12 g.	7.9	31.0	37.9	20.9	2.3	100.0
Eng. 12 l.	4.0	24.6	46.3	22.8	2.3	100.0
All English	7.9	21.6	27.7	25.1	17.7	100.0
Soc. St. 8	5.9	15.0	18.5	22.6	38.0	100.0
U.S. Hist.	8.1	16.2	26.4	31.9	17.4	100.0
U.S. Gov't.	9.0	27.7	41.3	18.6	3.4	100.0
Math 8	6.2	14.9	21.6	23.1	34.2	100.0
Math 9	1.9	9.9	28.9	32.7	26.6	100.0
Alg. I	7.3	19.9	25.2	22.4	25.2	100.0
Sci. 8	6.4	14.6	22.9	23.1	33.0	100.0
Sci. 9	7.3	19.1	28.7	24.2	20.7	100.0
Bio.	12.1	22.3	18.3	20.3	27.0	100.0

* grammar
** literature

The A.C.E. test, a standardized objective test designed to measure learning ability or scholastic aptitude, yields two scores which differentiate between linguistic ability (the L-score) and quantitative thinking (the Q-score). The Total score for the entire test is an indicator of general scholastic ability. The results of this test given in Table IX show the mean raw score obtained in the group being studied was 64.2 and the standard deviation 17.7. The frequency column shows that 66 students scored one sigma above the mean; 28 scored two sigmas above the mean; 8 scored three sigmas above the mean; and one person scored four sigmas above the mean. A group of 93 scored one sigma below the mean; 23 scored two sigmas below; and 2 scored three sigmas below.

The total number scoring plus or minus one sigma was 159, or 71.9 per cent of the number, as compared with the approximately 68.26 per cent in this area under the normal curve of distribution. The total number scoring plus or minus two sigmas from the mean was 51, or 23.1 per cent, as compared with the 27.18 per cent in the normal distribution; ten students, or 4.5 per cent, scored plus or minus three sigmas as compared with 4.28 in the bell curve. One person, or .004 per cent, scored plus four sigmas.

These figures, graphically displayed, show a curve with a positive skewness, where the largest number of scores appear between the mean and minus one sigma.

TABLE IX

MEAN AND STANDARD DEVIATION OF A. C. E.* TEST SCORES

FOR CLASS OF 1958

INTERVAL	f	X	fX	fX^2
125-129	1	127	127	16129
120-124	0	122		
115-119	2	117	234	27378
110-114	2	112	224	25088
105-109	1	107	107	11449
100-104	3	102	306	31212
95-99	1	97	97	9409
90-94	9	92	828	76176
85-89	4	87	348	30276
80-84	14	82	1148	94136
75-79	20	77	1540	118580
70-74	22	72	1584	114048
65-69	24	67	1608	107736
60-64	23	62	1426	88412
55-59	31	57	1767	100719
50-54	17	52	884	45968
45-49	22	47	1034	48598
40-44	12	42	504	21168
35-39	4	37	148	5476
30-34	7	32	224	7168
25-29	1	27	27	729
20-24	1	22	22	484
	N = 221		ΣfX = 14187	ΣfX^2 = 980339

$$M = \frac{\Sigma fX}{N} = \frac{14187}{221} = 64.19 = 64.2$$

$$SD = \sqrt{\frac{\Sigma fX^2}{N} - M^2} = \sqrt{\frac{980339}{221} - (64.2)^2} = \sqrt{4435.93 - 4121.64}$$

$$SD = \sqrt{314.28}$$

$$SD = 17.7$$

*American Council on Education, Psychological Examination. High School Edition

This test, administered in the tenth grade homerooms, did not include the group of drop-outs in the eighth and ninth grades. The results obtained relate primarily to the graduates and the membership in courses in the tenth, eleventh, and twelfth grades.

A comparison of the A.C.E. test results with the letter grades for the five years, given in Table VIII, would seem to indicate a general similarity between teacher assigned grades, which are somewhat subjective, and objective standardized test results indicating scholastic aptitude.

If failure and lack of scholastic aptitude were causes of the drop-outs in the lower high school and eighth grade levels, a scholastic aptitude test administered to the entire group at the eighth grade level would possibly have yielded scores resulting in a more positively skewed curve than the one obtained in the tenth grade level with the A.C.E. results. The tenth grade school population was a more select group scholastically than its own eighth grade population of two years before, by virtue of the drop-outs in that two year period, if grades are an indication.

The 71.9 per cent scoring plus or minus one sigma from the mean on the A.C.E. test exactly equals the 71.9 per cent earning average and above average grades related before.

Results from the A.C.E. test seem to indicate a normal distribution of scores earned by the 1958 class at the time they were

at the tenth grade level. General teacher evaluations through letter grades are similar to A.C.E. scores.

VI. SENIOR PLANS

Future Jobs

The future planning sheets, which all members of the senior class were requested to fill out, were available for 149 of the 168 graduates in the class of 1958. This group indicated in the spring of their senior year that 56 planned to attend college the following fall, 25 boys and 31 girls; 5 planned to attend business school, and one planned to attend a preparatory school. Four girls planned to enter schools of nursing; 9 girls planned to marry within a year; 18 boys planned to enter the armed services immediately; 42 planned to go into occupations in industry; and 15 were uncertain about any future plans.

College Applicants

Actually, from this group, 82 applied for college entrance, and 75 were accepted. This 75, which was made up of 30 boys and 45 girls, represented 45.8 per cent of the graduating class. The percentage of those not attending college was 54.2. Those accepted by colleges enrolled in 22 different institutions of higher learning, with the largest single group attending classes at Richmond

Professional Institute. Three of the eight girls from this class who entered Westhampton College of the University of Richmond, in the fall of 1958, made the dean's list the first year. One of these three girls made straight A's the first year and received a Phi Beta Kappa Book Award, an honor bestowed for excellence in scholastic achievement. Two of these girls made Mortar Board in their junior year at Westhampton. One of the five School Y 1958 girl graduates who entered Mary Washington College made straight A's and the dean's list her freshman year at Mary Washington and Mortar Board her junior year. One of the 1958 boy graduates made straight A's his freshman year at Davidson College and Omicron Delta Kappa, scholarship and leadership fraternity, his junior year.

By June, 1961, the majority of the graduates in the class of 1958 who had entered college had remained in college three years and had received adequate to superior ratings according to reports to the high school guidance office from the various colleges.

A high school has many objectives, one of which is preparation for college. The reports to the high school from the colleges which the graduates of the class of 1958 at School Y entered seem to indicate that these graduates performed adequately at the college level.

VII. THE DROP-OUT PROBLEM

During the five year period of the study of the class of 1958 at School Y, the 43.1 per cent of drop-out which took place spaced itself in this manner: 15 per cent of the total drop-out occurred at the eighth grade level; 8.2 per cent at the ninth; 10.5 per cent at the tenth; 7.4 per cent at the eleventh; and 2 per cent at the twelfth grade level. Similar studies reported in research showed varying degrees of the incidence of drop-outs in other areas and gave the probable causes.

A local study made of the Richmond metropolitan area in 1957 found a 42.7 per cent drop-out based on the first grade enrollments and the number remaining to graduate twelve years later.[4] The three school systems involved in the study were the City of Richmond, Virginia, and the Counties of Henrico and Chesterfield. In this study it was found that the greatest percentage of drop-out occurred at the ninth grade level, and the next highest at the eighth grade level. The study included both white and Negro enrollments, and in each school system the white school population had a greater percentage of drop-outs than the Negro.

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[4]Donald Barham Beaman, "The Extent of Drop-out in Public Schools in Richmond and Metropolitan Area" (unpublished Master's thesis, The University of Richmond, Richmond, Virginia, 1957) p. 32.

The United States Department of Health, Education, and Welfare reported in 1954 that in Virginia 35.6 per cent of the students enrolled in the fifth grade in 1943-44 remained in school to graduate eight years later: for the nation as a whole the percentage was 51.8. In Virginia 40.0 per cent of the seventh grade enrollment in 1945-46 graduated six years later in 1951; in the nation, 56.6 per cent. In Virginia 51.0 per cent of the students enrolled in the ninth grade in 1947-48 graduated four years later; in the nation, 62.5 per cent graduated. Ranked in descending order, on the ninth grade enrollment basis, Wisconsin had the highest percentage, 80.3 per cent, of graduates, and Georgia the lowest, 34.5 per cent. The midwestern states as a group had the highest retention percentage, and the states in the southeastern quadrant of the United States had the lowest retention rate.[5]

"Statistics dealing with the trends of all youth show that 80 per cent enter the ninth grade, and only 50 per cent remain to graduate. In the northwestern states the trend is for 60 per cent to graduate, and in the southern states 40 per cent."[6]

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[5]Walter H. Gaumnitz, High School Retention by States, United States Department of Health, Education, and Welfare, Office of Education, Circular 398 (Washington: Government Printing Office, 1954), pp. 8-12.

[6]Harl R. Douglass, Education for Life Adjustment (New York: The Ronald Press Co., 1950), p. 7.

A study from the Work Conference on Life Adjustment Education in Chicago in 1950 reported, "The highest percentage of drop-outs (54 per cent) occur at the age of 16, and in grades 9 and 10 (63 per cent)."[7]

The state law governing compulsory school attendance which was in effect in Virginia during this study of the class of 1958 and until January 31, 1959, read in part:

> Every parent, guardian, or other person in the Commonwealth, having control of any child or children who have reached the seventh birthday and have not reached the sixteenth birthday, shall send this child, or children, to a public school, or to a private, or denominational, or parochial school, or shall have such a child, or children, taught by a tutor or a teacher, of qualifications prescribed by the State Board and approved by the division superintendent, in the home, and such child, or children, shall regularly attend such a public school during the period of each year the public schools are in session and for the same number of days as the public school.[8]

The student, in Virginia, who entered the first grade at the age of seven would normally arrive at the eighth grade at the age of fourteen, but if he had been retained in one or more grades in the elementary school, he would arrive at the eighth grade at the age of sixteen, the age at which he could legally stop school.

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[7]Virginia State Chamber of Commerce, Improvements in High School Education in Virginia 1944-54, p. 22.

[8]State Board of Education, VIRGINIA SCHOOL LAWS, State of Virginia, October, 1950, p. 103.

A survey of the literature reported many studies of the causes of drop-outs. Science Research Associates found that drop-out students have many of the following characteristics in common:

> Most drop-outs are unsuccessful in school work and retarded by one or more grades; and many are consequently over age by the time they withdraw.
>
> Most drop-outs take little part in out-of-class activities.
>
> Most drop-outs place low value on schooling.
>
> Most drop-outs come from low income families and have trouble meeting school costs.[9]

Many studies reported the low value placed on high school education by families in the low income bracket; the lower the social class, the lower the value on education.

These reasons and percentages for quitting school were reported: dissatisfaction with school, 47.7 per cent; economic need, 19.4 per cent; lure of a job, 11.7 per cent; marriage and pregnancy, 6.6 per cent; and others, 14.6 per cent.[10]

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[9]Charles M. Allen, Combating the Drop-out Problem, (Chicago: Science Research Associates, Inc., 1956), p. 7.

[10]Mildred Berlman, "Why Boys and Girls Leave School," Encyclopedia of Educational Research, A Project of the American Education Research Association, Department of National Education Association (3rd ed.) (New York: The Macmillan Company, 1960), p. 9.

Harl R. Douglass gave this reaction to the cause of drop-outs:

> It is customary to assign financial reasons as the chief factor, but this is actually a superficial excuse which glosses over the real reason. Lack of interest, parental indifference, and the failure to understand life adjustment educational objectives and possibilities are the main factors, and all of them stem from the fact that the school's program and method do not pay enough attention to modern living conditions, needs, and interests.[11]

The Richmond metropolitan area drop-out study reported that, among the many factors listed by drop-outs as causes for leaving school, 50 per cent were school and teacher-related causes.[12]

Science Research Associates summarized the teacher-drop-out relationship in this manner:

> Unfortunately, the relationship between the potential drop-out and the teacher too often is part of the endless cycle of low marks, non-promotion, and rejection begun in the early grades. Keeping pupils after school because of poor schoolwork, pointing out their weaknesses and failures to them and their parents, not selecting them for prestige jobs, and even providing them with manual tasks within their abilities but low in prestige in the eyes of other pupils--all these reinforce the youngsters' sense of failure, their dislike of school, and their dislike or suspicion of their teachers.
>
> In contrast to this negative relationship, Dr. Robert Havighurst, in his book, Human Development and Education, stresses the importance of having teachers

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[11] Douglass, op. cit., p. 445.

[12] Beaman, op. cit., p. 48.

> who are "significant persons" to the child. Such a person is "more than a part of the human furniture in the child's neighborhood" and is "one whose love and respect is desired by the child." "Relatively few teachers," Havighurst says, "become significant persons in the life of any particular child. Most teachers remain outside the shell of his emotional attachment...but a few teachers find a place within the inner circle of significant persons and exercise deep influence on the child's development."
>
> There are apparently few drop-outs who have found teachers whom they can admire and with whom they can develop the warm, friendly relationship which might serve as a major force to keep them in school.[13]

The study of the literature indicated that the drop-out problem at School Y was not out of proportion when compared with the problem in other area and state public school systems. However, the studies showed that Virginia and the other southeastern states had a lower percentage of students remaining in school to graduate than other sections of the United States.

The studies reported a variety of causes for the drop-out percentages, the causes varying in degree with each school and each community. Most of the drop-outs, however, had a history of failure and retention in lower grades and lower high school subjects, were dissatisfied with schools, and came from lower social class families where low value was placed on graduation from high school.

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[13]Allen, op. cit., p. 20.

VIII. SUMMARY

The membership at School Y in the class of 1958, as this study progressed, was divided equally into the group who graduated and the group who dropped out. The graduate group achieved varying degrees of success academically; the drop-out group did not. The study of courses and grades earned revealed a greater degree of failure in required subjects than in elective subjects, a greater degree of failure at the lower level of school than at the upper level. According to standardized test results, the population studied approximated a normal distribution, and, in general, the letter grades assigned by teachers were similarly distributed.

The drop-out pattern at School Y followed closely the drop-out pattern found in studies of the schools in the area, but the area exerted less holding power in its schools than the schools of the nation exerted.

The reports to the high school from colleges which the graduates of the class of 1958 at School Y entered seem to indicate that these graduates achieved adequately at the college level.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

This study has traced the forty year history of the service and growth of School A in a community which gradually changed from a typically scattered rural area to a thickly populated area composed predominantly of lower income and middle class families. When the enrollments at School A outgrew the physical facilities of the school plant, School A ceased to function as a secondary school in May, 1951.

With the closing of the parent school, the new and larger School Y opened its doors in September, 1951, to continue offering educational opportunities to the students in the area formerly served by School A. Rapid and continuous population growth in the community caused steady increases in the enrollments at School Y, and conditions remained crowded until other secondary and junior high schools opened in the county to relieve the situation.

The study of the progress of the 390 individuals, comprising the original enrollment of the potential graduates in the class of 1958, showed that 168 of the students remained to graduate, and exactly the same number dropped out of school. If the number who transferred to other schools were ignored, the result would be

50 per cent graduating, 50 per cent dropping out. This proportion was comparable to other area and state school percentages for school leavers.

A review of the grades earned in the five years pointed out the areas of greatest difficulty. The required subject fields and the subjects taught in the lower levels of the school had the highest frequency of failure. At the tenth grade level, for those who had not already withdrawn from the class, the A.C.E. test results described a population similar in aptitude to the normal curve of distribution. The teacher assigned grades for this group were fairly evenly distributed in a similar curve.

Forty-five per cent of those graduating attended college the following year, and reports to the high school indicated that these students performed satisfactorily at the college level.

II. CONCLUSIONS

The conclusions which were drawn from the data presented in this study are:

1. Since this study did not ascertain the needs of the individual student, it contains no real proof as to whether the curriculum met these needs.

2. The large percentage of drop-outs, though comparable to the area and state figures for drop-outs, is a problem which needs further investigation to determine the real cause for the students' leaving school.

3. The higher degree of failure in required academic courses than in elective courses is a problem which needs investigation in order to determine the cause and to improve the situation.

4. The degree of failure in the eighth, ninth, and tenth grades, which is also the area of the greatest drop-out, is a problem which should be studied to determine the cause in order to improve any unfavorable conditions which may be found to exist.

5. The results obtained by the A.C.E. test administered to this group at the tenth grade level indicate that more students had the scholastic aptitude to succeed in advanced mathematics, science, and foreign languages than were actually enrolled in those courses.

6. The additions to the curricular offerings between 1931-58 reflect the changing needs in a growing community.

7. The educational level attained by the parents in the School Y community was higher than that of the national level for adults.

8. The vocational aims of some parents for their children were higher than the students' own aspirations.

9. Some parents had unrealistic goals for their children in relationship to their ability; some students also had unrealistic goals in relationship to their ability.

10. The enrollment data showed that more boys than girls dropped out of school.

11. The grades earned in subject fields indicated that the girls made higher grades than the boys in most courses.

12. More girls than boys elected foreign languages and business courses, but more boys than girls elected advanced mathematics and science courses.

13. The degree of difference in success between grammar and literature courses was negligible.

14. Many students who remained in school to graduate experienced some failure during this period.

15. The school record of most of the drop-outs was one of academic failure.

16. Reports to the high school indicated that most of the graduates in the class of 1958 enrolled in various colleges achieved satisfactorily at the college level.

17. There was some relationship between grades assigned by teachers and scores made by students on standardized scholastic aptitude tests.

18. The patrons of School Y felt that the school fulfilled adequately its responsibility for educating the youth in the area.

III. RECOMMENDATIONS

After consideration of the data presented and the conclusions drawn in this study, the author makes these recommendations:

1. That a continuing study be made of the drop-outs from School Y to determine, if possible, the real cause of each drop-out; that the drop-out study be made a part of the continuing evaluation of the school's program.

2. That an investigation be made of all the causes discovered in that drop-out study to determine which could be attributed primarily to the pupil, to the school, or to the teacher; that attempts be made to improve any area found deficient by the study.

3. That the administration encourage classroom teachers to evaluate the student's work in required academic courses according to the individual's level of ability and his own progress.

4. That efforts be made to discover the interests and aims of the students in the eighth, ninth, and tenth grades, where much of the drop-out occurs, in order to provide for these interests and aims in the curriculum.

5. That guidance counselors and teachers encourage students with proved scholastic aptitude to elect advanced academic courses.

6. That counselors and teachers help students make realistic choices of classes according to their ability and goals.

7. That counselors and teachers offer occupational and vocational information to the students to enable them to plan their courses wisely.

BIBLIOGRAPHY

A. BOOKS

Baron, Denis, and Harold Bernard. Evaluation Techniques For Classroom Teachers. New York: McGraw-Hill Book Company, Inc., 1953.

Burton, William H., and Leo Brueckner. Supervision, A Social Process. Third Edition. New York: Appleton-Century-Crofts, Inc., 1955.

Douglass, Harl R. Education for Life Adjustment. New York: The Ronald Press Co., 1950.

Froehlich, Clifford, and Kenneth Hoyt. Guidance Testing. Third Edition. Chicago: Science Research Associates, Inc., 1959.

Gruhn, William, and Harl R. Douglass. The Modern Junior High School. Second Edition. New York: The Ronald Press Company, 1956.

Krug, Edward. The Secondary School Curriculum. New York: Harper & Brothers, Publishers, 1960.

Shartle, Carroll. Occupational Information, Its Development and Application. Third edition. Englewood Cliffs, New Jersey: Prentice Hall Inc., 1959.

Strang, Ruth. The Role of The Teacher in Personnel Work. Fourth edition. New York: Bureau of Publications, Teachers College, Columbia University, 1953.

Underwood, Benton, and others. Elementary Statistics. New York: Appleton-Century-Crofts, Inc., 1954.

Whitney, Frederick. Elements of Research. Third edition. New York: Prentice Hall, Inc., 1950.

B. PUBLICATIONS OF THE GOVERNMENT, LEARNED SOCIETIES, AND OTHER ORGANIZATIONS

Allen, Charles. Combating The Drop-out Problem. Science Research Associates, Inc. Chicago: Science Research Associates Inc., 1956.

Gaumnitz, Walter. High School Retention by States. United States Department of Health, Education, and Welfare, Office of Education, Circular 398. Washington: Government Printing Office, 1954.

State Board of Education. Virginia School Laws. Richmond: The Michie Company, October, 1950.

Virginia State Chamber of Commerce. Improvements of High School Education 1944-45. Education Document No. 3. Richmond: Whittet & Shepperson, 1955.

C. ENCYCLOPEDIA ARTICLES

Berlman, Mildred. "Why Boys and Girls Leave School." Encyclopedia of Educational Research, A Project of The American Educational Research Association, Department of National Education Association. Third edition. New York: The Macmillan Company, 1960.

D. UNPUBLISHED MATERIALS

Henrico County Workshop Group. Curriculum Study, Secondary Schools, Henrico County. Henrico County Schools: Joint group on secondary curriculum survey, 1959. (Mimeographed.)

Henrico County Principals and Supervisors. Report of the 1960 Conference of Principals and Supervisors. Henrico County: Joint group on curriculum survey, 1960. (Mimeographed.)

Beaman, Donald Barham. "The Extent of Drop-out in Public Schools In Richmond and Metropolitan Area." Unpublished Master's thesis, The University of Richmond, Richmond, Virginia, 1957.

E. REFERENCE MATERIALS

Hansen, Harry (ed.). The World Almanac, 1960. New York: The New York World Tribune and Sun, 1960.

VITA

Carrie Payne Barker, daughter of the late Mr. and Mrs. Edlow Garrett Payne, was born in Clifton Forge, Virginia, October 27, 1910. She graduated from Clifton Forge High School in 1927 and received her Bachelor of Arts degree from the College of William and Mary in 1931.

She taught in the public schools of Alleghany County and Covington for five years before her marriage in 1936 to Joseph P. Barker, of Richmond, Virginia. The two children of this marriage were Joseph Payne Barker, born February 13, 1938, a 1960 alumnus of the University of Richmond, and Edlow Garrett Barker, born April 30, 1945.

She returned to the teaching profession in 1953 as a teacher of English and Journalism at Hermitage High School, Henrico County, Virginia. In 1958 she entered the field of guidance.

She has been enrolled in the University of Richmond for the 1958, 1959, 1960, and 1961 summer sessions in pursuit of the Master of Science Degree in Education. In 1961 she was elected to membership in Kappa Delta Pi.