8-1937

Occupational Choices of Graduates of Science Hill High School, Johnson City, Tennessee, in Relation to High School Preparation and Additional Training

William Warren Simmons
University of Tennessee - Knoxville

To the Graduate Council:

I am submitting herewith a thesis written by William Warren Simmons entitled "Occupational Choices of Graduates of Science Hill High School, Johnson City, Tennessee, in Relation to High School Preparation and Additional Training." I have examined the final electronic copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Education.

Clyde Wilson, Major Professor

We have read this thesis and recommend its acceptance:

ARRAY(0x7f6ffe617ed0)

Accepted for the Council:
Carolyn R. Hodges

Vice Provost and Dean of the Graduate School

(Original signatures are on file with official student records.)

August 1937

To the Committee on Graduate Study:

I submit herewith a thesis written by Mr. William Warren Simmons and entitled "Occupational Choices of Graduates of Science Hill High School, Johnson City, Tennessee, in Relation to High School Preparation and Additional Training," and recommend that it be accepted for nine quarter hours credit in partial fulfillment of the requirements for the degree of Master of Science, with a major in Industrial Education.

Clyde L. Wilson
Major Professor

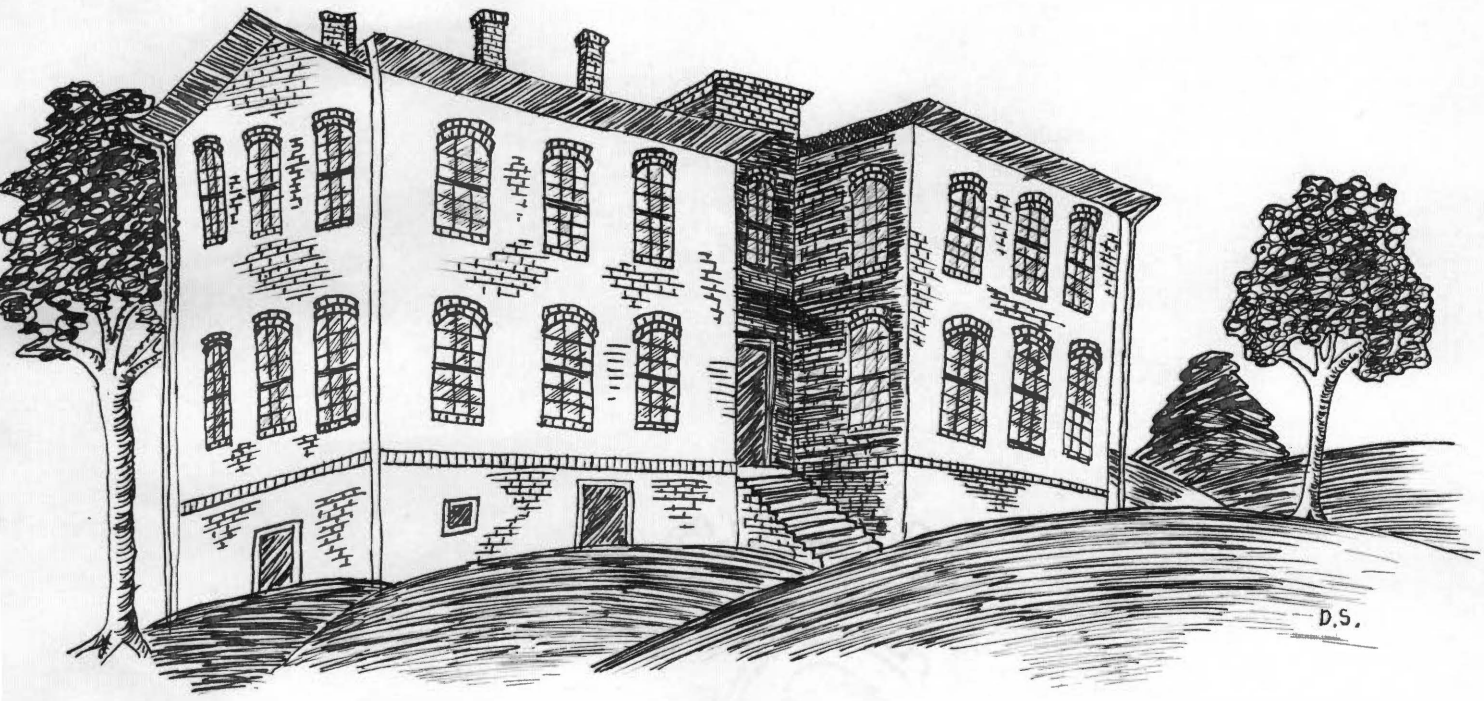
At the request of the
Committee on Graduate Study,
we have read this thesis,
and recommend its acceptance.

Joe Stuart

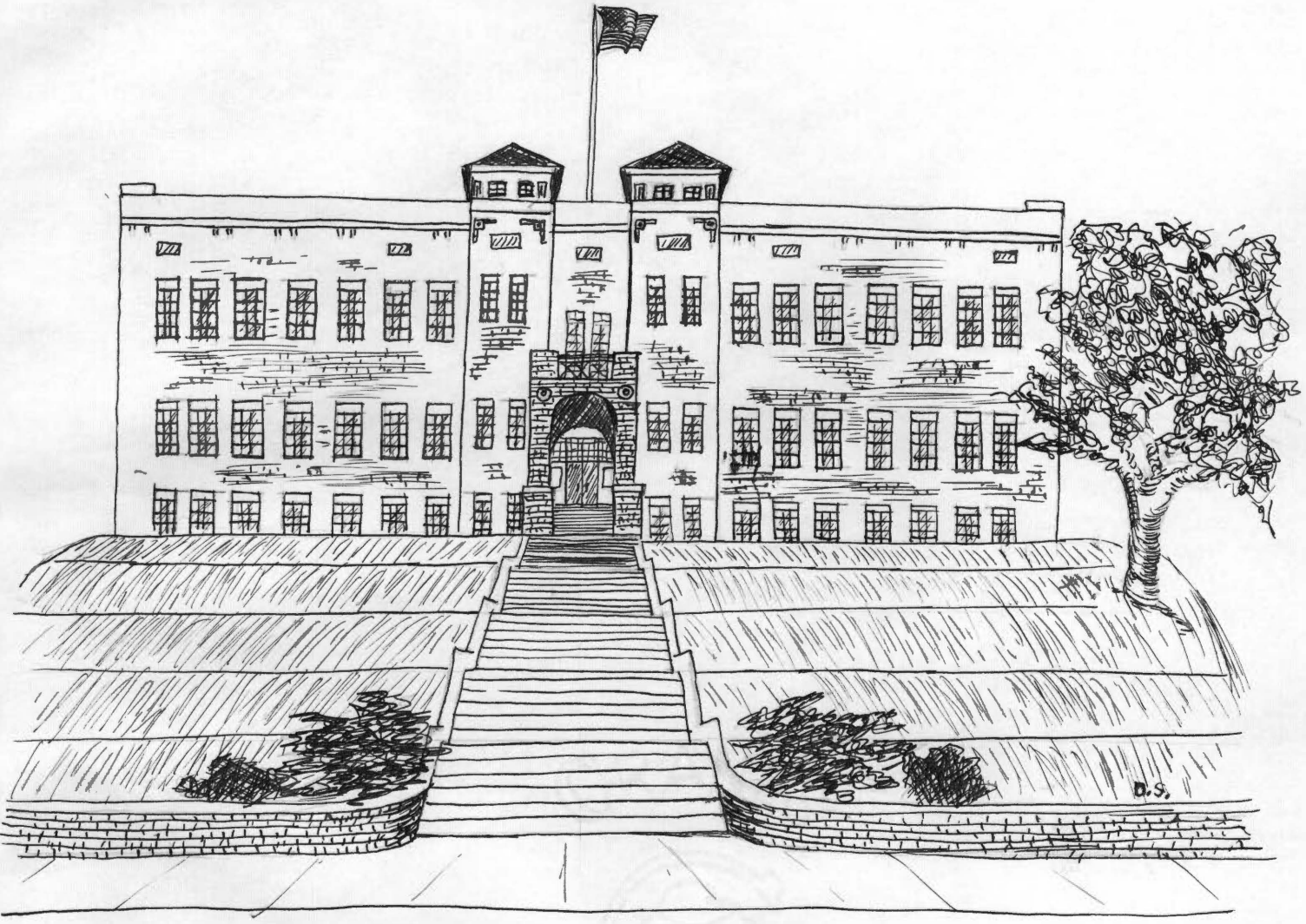
S. E. Torsten Lund

Accepted for the Graduate Committee

H. P. Smith
Dean



Science Hill Male and Female Institute 1870



Science Hill High School 1937

OCCUPATIONAL CHOICES OF GRADUATES OF SCIENCE HILL HIGH SCHOOL, JOHNSON CITY, TENNESSEE, IN RELATION TO HIGH SCHOOL PREPARATION AND ADDITIONAL TRAINING

A THESIS

Submitted to the Graduate Committee

of

The University of Tennessee

in

Partial Fulfillment of the Requirements

for the degree of

Master of Science

by

WILLIAM WARREN SIMMONS

August 1937

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INTRODUCTION

The Purpose. What actually becomes of the high school graduate after his graduation? For those who go to college, what are some of the factors that influence their persistence in higher education? What value in a material way do they obtain by further education? These are some of the motives that have caused the writer to make a study of the graduates of Science Hill High School, Johnson City, Tennessee, over a period of five years from 1927 to 1931 inclusive. Stated in a more definite way, the purpose of this study is to survey the activities of the graduate of Science Hill High School through a period of years, following their graduation with special attention given to some of the conditions affecting their persistence in school.

The Setting. Johnson City is located in upper East Tennessee, in Washington County, 106 miles northeast of Knoxville. It is on the main line of two railroads, the Southern, and the Carolina, Clinchfield & Ohio, and is the terminal of another, the East Tennessee and Western North Carolina railroad. It is in the midst of a fine agricultural section. Tobacco, grasses, and all kinds of fruits grow to perfection. It has at its gates an unlimited supply of timber. It is literally hedged in by mountains of iron ores, and lies almost at the base of the Cranberry Mountains, for whose celebrated magnetic ores it is the natural outlet. Limestone is

found there in quantities beyond estimation and of the best quality.[1]

The city has a population of 25,080 according to the United States census of 1930.[2] The principal industries include the following; hardwood flooring mills, foundries and machine shops, silk mill, hosiery mill, textile plant, furniture factory, and many small industries of varied nature.[3]

The schools of Johnson City are of two types, state schools, which include the East Tennessee State Teachers' College, and the Training School, having grades one to ten inclusive, conducted in connection with the college, and the public schools, which include the elementary schools, one junior high school, and two high schools, one of the high schools being for colored pupils. Only the graduates of the Science Hill High School for white students are included in this study.

The primary source of material included in this investigation are the permanent records in the office of the principal of Science Hill High School. Some of the data were taken directly from the permanent records of the school, and some of the information was gathered by the use of the

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1 Chamber of Commerce, Pamphlet, Johnson City, Tennessee, 1891.

2 U. S. Department of Commerce, Bureau of The Census, Wholesale Distribution, Distribution Volume II, p. 1380.

3 U. S. Department of Commerce, Bureau of The Census, Occupations of States, Population Volume IV, pp. 1521-22.

questionnaire. The remaining data needed were secured from printed forms, such as Chamber of Commerce Pamphlets, school annuals, Rules and Regulations of the Board of Education, and the minutes of the Science Hill Debating Society.

CHAPTER I

HISTORY OF SCIENCE HILL HIGH SCHOOL

The Organization of Science Hill Debating Society. About seventy-six years ago (1860) the late E. V. Easley, now deceased, organized the Science Hill Debating Society at Oak Grove, about two and one-half miles from what is now Johnson City. Its membership included many young men of the surrounding neighborhood, among others, J. M. Carr, H. H. Carr, Wm. Taylor, E. E. Reeves, J. D. Reeves, R. H. Reeves and E. C. Reeves.

About one year afterwards the society meetings were transferred to the school house, which then stood at Brush Creek camp ground, near where now stands the brick tobacco warehouse west of the city. There J. M. Johnson, A. H. Akards, Elbert Akards, Major Joe Wagner, and others joined the society, and it was a lively and useful organization.[1]

The Society's Work in Building Science Hill Male and Female Institute. The war between the states came and went, and after it closed the society was reorganized. Although poverty, and almost destitution, was the common inheritance of the people in the neighborhood, the membership of the society determined to build a seminary building at what was then Johnson's Depot. The late Tipton Jobe was induced to

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1 King, Fred, The Echo, Vol. I. Johnson City, Tennessee, May, 1905.

donate the ground now called Science Hill. Subscriptions for money, material and labor were taken, and "Science Hill Male and Female Seminary" a substantial and creditable brick building was erected about 1867. Dr. H. H. Carr, T. A. Faw, and John H. Bowman, were the largest contributors.

The society was organized for the promotion of education and its interest in this phase of its work was shown when the members selected for their subject in a debate March 8, 1867, "Should schools be kept up by taxation." The next reference to education was April 18, 1867, when they discussed this question, "Is education the true basis on which to found the rights of suffrage." Their first award of distinction for work done in education was to have two contests on their anniversary for which two medals were awarded. The first was to be called the oratorical medal, to be awarded for superior composition and declamation. The second was awarded for best declamation. In each contest there were to be four contestants to be elected by the society.[2]

The society met at the institution, and the president elect, H. H. Carr, was inducted into office, his inaugural address being most appropriate as well as interesting. On motion, that part of his address relative to Science Hill Male and Female Institution was ordered to be copied in the

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2 Carr, H. H., Pres., "Minutes of the Meeting of Science Hill Literary Society." Johnson City, Tennessee, May 1867.

minutes of the meeting. It read as follows:

> A short time ago we determined to erect an institution of learning at this place. Strange as it may seem to the uninformed, we met with opposition from some of the very people we intended to benefit. Our motives were slandered and names cast out as evil doers. Men of age, money, and influence arrayed themselves against us, and our good intentions, but notwithstanding, we were young without experience yet the opposition was met and overcome, the designs of our enemies were brought to naught, and our traducers to shame. Had Science Hill Society never been organized, Science Hill Male and Female Institution would not have been built, and the grand ideas now intoxicating the common mass of our people in all probability would never have been conceived. If this country is blessed, and Johnson Depot shakes off its deformed and dwarfish proportion by having a university erected here, may not our society congratulate herself with having helped accomplish this.[3]

The standards and high ideals of the society can best be described by the following resolution copied from the minutes of their meeting on July, 1869, which reads as follows:

> "Whereas the Science Hill literary society is an association, in which politics and religious creeds are unknown, but is dedicated to the cause of learning and virtue; and whereas the members of said society were interested to such an extent in the community that they conceived the idea, and are attempting to build an institution of learning in honor of Science Hill Literary Society and for the promotion of the cause of education and virtue; and, whereas the State of Tennessee granted a charter for the protection of the proposed institution recognized H. H. Carr, J. M. Johnson, A. H. Yeager, F. L. Williams, and B. W. Akards, members of Science Hill Literary Society as trustees of said institution, therefore, be it resolved that we instruct said trustees, in the present undertaking,

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3 Carr, H. H., "Minutes Science Hill Literary Society," Johnson City, Tennessee, June 18, 1869.

> to work for the cause of education and virtue alone, and to favor no plan that looks to an advancement of any political party.[4]

The Course of Study for 1871. The school ran smoothly for a number of years with the society electing the principal of the school only, and giving him instructions for the carrying out of the policies. The school was run as a private institution under the direction of said society, and the following classes were taught.

(1) Class in Cicero's Oration.

(2) Class in Arithmetic.

(3) Class in Greek Book.

(4) Class in Algebra.

(5) Class in Trigonometry.

(6) Class in Latin Book.

(7) Class in Declamation for boys.

(8) Class in Declamation for girls.

(9) Class in Composition for Girls only.

A program printed for the closing exercise for May 26, 1871, reveals the following information; the closing program for the school began at 8½ o'clock a. m., ran through until lunch, assembled again at 2 o'clock p. m., dismissed for dinner and had the final session beginning at 7½ o'clock p. m.[5]

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4 Loc. cit.

5 Science Hill Male and Female Seminary, Printed Program, May 26, 1871.

Attempt to Make Science Hill A Public School. The first attempt to make this institution a public school was made in 1885, when a committee was appointed to confer with the School Commission of the 9th Civil District of Washington County, to obtain their cooperation in an effort to maintain a first class school. About this time a number of matters were brought before the governing body of the institution that had a direct bearing on the future of this school system. (1) The principal was given permission to employ his wife as teacher in said school, thus establishing a custom of employing married women for teachers in the city school system that remained in practice until the spring of 1932.[6] (2) The trustees of the institution selected the full teaching force for the school during the summer of 1887, and in the selection of teachers, the writer finds that they established the first departmental work in the school when they selected a music teacher along with three other teachers.[7] (3) One notes that at a meeting held in July, 1887, the trustees of the institution attempted to regulate the salaries of the principals and teachers. The principal salary was to be represented by the figure eight, the first assistant salary to be represented by the figure four and one-half. In the event additional teachers were

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6 Carr, H. H., Pres., "Minutes of Science Hill Literary Society," Johnson City, Tennessee, July 1887.

7 Minutes of Board of Education, Johnson City, Tennessee, May 1932.

required, the first and second assistant teachers were to be paid in the same ratio.

The School Placed Under City Supervision. In the summer of 1885 the first attempt was made to have the school placed under the direct supervision of the city. One notes this by the paper presented to the society by H. H. Carr, from the Board of Mayor and Aldermen of Johnson City, asking for a lease of the building for a period of ten years. The offer was rejected, however, by the society because of the lack of power on the part of the city officials to enter in any agreement like the one suggested. The second attempt which was made in 1888 to have the school under direct city control was also unsuccessful. The school, however, was placed under the direction of the city in 1889.[8]

The primary objective of the seminary was educational but it was also a place of worship, there being in the village no church building. The city grew up around Science Hill, and it became necessary to enlarge the building, so in 1902 the trustees leased Science Hill to the city for ninety-nine years for educational purposes, stipulating an addition to the building together with other improvements.[9]

The Growth of the School Curriculum. A number of statements obtained from the school annuals give valuable information

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8 Carr, H. H., "Minutes of Science Hill Literary Society," Johnson City, Tennessee, July, 1887.

9 Ibid., July, 1887.

as to the growth of the school, and the addition of new courses to the curriculum.

> At the first of the school year 1904 and 1905, the departmental plan of teaching was inaugurated. This method has proven very successful indeed, it greatly relieved the monotony of the ordinary system, thereby giving new vigor to both the teacher and pupil.[10]

> A new feature has been added to the high school this year in the introduction of manual training. It is a diversion from the old routine of studies, and will be, when carried on in a large scale, a great benefit to us for a trained hand added to a trained mind is one of the best equipments which a human being can possess.[11]

> Next to the introduction of the public school system itself, there has been no event of greater importance to the educational interest of Washington County, than that of Tuesday, April 1, 1906, at Jonesboro, when the County Court voted a tax levy of ten cents on the dollar for the purpose of creating and maintaining four county high schools. After levying the tax the court elected six members of a County Board of Education, whose duty it shall be to locate the schools, and exercise some jurisdiction over them.[12]

By universal consent Johnson City secured one of the high schools. The additional funds enabled the local board to employ more teachers and add a higher grade to the regular high school course.[13]

In the year of 1907 and 1908, the students at Science Hill decided to form an athletic association.[14]

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10 King, Fred, The Echo, Vol. I, Johnson City, Tennessee, May, 1905.
11 Ibid.
12 Tomlinson, Cordie, The Echo, Vol. 11, Johnson City, Tennessee, May, 1906.
13 Loc. cit.
14 Loc. cit.

The department of Domestic Science was added to the high school in the fall of 1910, and became very successful. The addition of this special subject advanced the high school curriculum to a point that made it possible to have a first class school and the graduates were prepared to enter the best southern colleges.[15]

The writer observed that in the fall of 1912, there was added to the high school a business and industrial course, in addition to certain required subjects, bookkeeping, typing, shorthand, commercial law, business English, and domestic art. The course of study for Science Hill High School has been revised a number of times, and many of the subjects once taught there, such as Caesar, Cicero, Virgil, zoology, botany and physiology, have been revised or eliminated from the high school course.

The Course of Study for 1905. The Board of Education of Science Hill High School realized in the early days of the institution, that in preparing a course of study to develop the minds of the students that certain things must be considered such as interest and ability. This fact was shown by them in their course of study as early as 1905 when they prepared an outline of work for that year giving the students a choice of either a Latin course, consisting of Latin, algebra,

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15 Coe, Cleve B., The Echo, Vol. IV, Johnson City, Tennessee, May, 1908.

history, physical geography, and physics, or an English course, consisting of English, algebra, history, botany, and civil government. They prepared suggestions for the teachers to accompany this outline, and gave them the following information: "It is impossible to make in advance study limits for all pupils, or to make all pupils fit any system, because individuals and classes differ in ability, character, and attainment. Little more than an outline of a general course of study, to be pursued, should be given, and this is expected to be rounded out by the teacher, as circumstances require."[16]

The Course of Study for 1911-12. The course of study in 1911-12 provided that a student entering Science Hill High School might pursue any one of the four courses. First, the college preparatory course, in which were offered Latin, algebra, history, English, Caesar, Cicero, geometry, civics, Virgil, economics, and psychology. Second, the academic course in which a student was permitted to take Latin, algebra, zoology, foreign language, Caesar, geometry, chemistry, physics, and psychology. Third, a student might pursue the scientific course of English, history, algebra, physiology, zoology, foreign language, chemistry, civics, physics, and agriculture. Last was listed the business and industrial

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16 Board of Education, Rules and Regulations, Johnson City Public Schools, Johnson City, Tennessee, J. W. Class & Company, 1905, pp. 37.

course where he might take the following; commercial arithmetic, commercial geography, history, algebra, business English, commercial law, freehand drawing, bookkeeping, shorthand, typewriting, mechanical drawing, and domestic art (for girls only).[17]

The Classes Offered in Science Hill High School 1936. Out of this and many other revisions the school has progressed in the subject matter until it offers the following enriched courses of study: English, French, Latin, geometry, algebra, chemistry, shorthand, shopwork, library science, physical education, biology, physics, history, home economics, commercial arithmetic, bookkeeping, typing, mechanical drawing, a unit of the Reserve Officer Training Corps, together with a variety of extra curricular activities.

The Number of Graduates Over a Forty-three year period. Table I, page 11, shows the number of graduates from the time the school was established up to and including the present year. One notes that in 1910 there were no graduates listed, as the school was made a standard four year school, thus eliminating a graduating class for one year. The fewest number of graduates, three, was listed in 1895, while the peak was noted in 1935 when one hundred and fifty-five students completed the regular high school course.

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17 Loc. cit.

TABLE I

THE GRADUATES OF SCIENCE HILL HIGH SCHOOL,
BY YEARS, OVER A PERIOD OF FORTY-THREE YEARS

Year	Number	Year	Number	Year	Number
1894	7	1909	18	1924	45
1895	3	1910	0	1925	75
1896	8	1911	14	1926	75
1897	11	1912	9	1927	65
1898	4	1913	31	1928	69
1899	15	1914	34	1929	104
1900	17	1915	51	1930	76
1901	15	1916	20	1931	82
1902	24	1917	38	1932	120
1903	14	1918	33	1933	122
1904	14	1919	41	1934	121
1905	8	1920	48	1935	155
1906	10	1921	33	1936	139
1907	28	1922	47	1937	138
1908	17	1923	66		

Science Hill is now the only high school of the city for white students, and is enlarging its usefulness. From it have come young men and women from all walks of life for this and other communities. The work of the small debating society, now almost forgotten, has had a far reaching effect on the community.

CHAPTER II

THE METHODS OF SECURING AND TREATMENT OF DATA

Methods of Collecting Data. The writer used three methods of research in collecting these data. (1) The questionnaire method. (2) Library technique. (3) The interview. The questionnaire was designed to get information pertaining to the parents of the graduates and their occupation, also information in regard to the graduates work while in Science Hill High School, as well as his additional educational preparation received after graduation. Certain information was asked for in regard to previous jobs held, and the beginning weekly wages, while a more definite list of questions were asked in regard to his present occupation. The size of the family was requested and the number of children older than the graduate. Space was provided for any additional remarks in regard to previous questions or additional information they desired to add. The questionnaire and the letter of explanation which was to accompany it are given in the appendix.

The names of graduates for the years 1927 to 1931 inclusive, together with those of the parents or guardians were secured through the cooperation of the high school principal and his secretary. In addition to the above data furnished by the school, the address of the parent or guardian was

secured, and the city directory was used to check to obtain present addresses where the parents or graduates were living in the city at the time of the investigation. The average mark on all subjects throughout the high school course was also secured. In some instances exact figures were given while at other times letters were used. In terms of letters, C is a passing grade, 70 to 79 inclusive, B is 80 to 89 inclusive, and A is 90 or above. This standard of grades is included to save confusion as both the standard and the grading system have been changed in recent years.

Since 77.82 per cent of the graduates filling out questionnaires for this study were still living either in Johnson City or Washington County at the time of this investigation (see Table II, page 16) the writer visited personally or contacted by telephone, a large percentage of the individuals and explained the purpose and details of the questionnaire to them before asking them to fill it out. To those who lived at a greater distance within the state and to those who were living in other states, the data sheet was mailed accompanied by a letter explaining the purpose of the investigation, and assuring each individual that information would be strictly confidential, as well as impersonally recorded.

From the data secured Table II was constructed, showing the number and percentage responding. One notes by examining this table 46.60 per cent of the graduates did not return

questionnaires. This was due in part to the failure of the writer to locate the whereabouts of approximately 15 per cent of the graduates as they and their families had moved away. In addition at least 15 per cent were contacted who did not wish to be included in this study as they seemed to think the information too personal. Of the number contacted in this group twenty were college graduates, and the remainder were fairly well distributed in the other educational groups, such as graduates, non college, and those with special training. The writer feels that had he obtained the rest of the questionnaires, it would not have affected the study to a very great extent. Table II reveals the fact also that over a period of five years, of all the Science Hill High School graduates, ninety-five out of one hundred and fifty-five or 61.29 per cent of the boys; one hundred seventeen out of two hundred forty-two or 48.34 per cent of the girls; and a total of two hundred twelve out of three hundred ninety-seven or 53.40 per cent of the total number of graduates over the five year period are included in this study. Table II shows the fact that more than 50 per cent of the graduates for each year, over the five year period were included in this study with the exception of 1927, for which only 41.54 per cent returned questionnaires.

Table III, page 18, reveals the fact that one hundred and sixty-five or 77.82 per cent of the graduates over the

TABLE II

THE NUMBER OF GRADUATES OVER THE PERIOD OF FIVE YEARS, THE NUMBER AND PERCENTAGE RESPONDING

	Graduates			Number Responding					
Year	Boys	Girls	Total	Boys	Per cent	Girls	Per cent	Total	Per cent
1927	22	43	65	13	59.09	14	32.55	27	41.54
1928	32	37	69	19	59.37	21	56.75	40	57.97
1929	38	66	104	21	55.26	32	48.48	53	50.96
1930	27	50	77	17	62.96	28	56.00	45	58.43
1931	36	46	82	25	69.44	22	47.82	47	57.32
Total	155	242	397	95	61.29	117	48.34	212	53.40

NOTE: This table should be read as follows: In 1927 twenty-two boys, forty-three girls, or a total of sixty-five graduated. Thirteen boys, or 59.09 per cent, fourteen girls or 32.55 per cent, making a total of twenty-seven, or 41.54 per cent of the graduates for 1927 were included in this investigation.

five year period included in this study were living in Johnson City or Washington County. More than 70 per cent of the graduates in each year were living in Johnson City or Washington County; of the graduates included in this study twenty-eight or 13.20 per cent were living in other states, and nineteen or 8.96 per cent were living in other cities and counties in Tennessee.

Methods of Treatment. In order that there may be a comparative distinction between the high school graduate who did not enter college, who entered college but did not finish, and who received a college degree, the high school graduates are recorded in three groups in some of the tables under the headings high school graduates, non college graduates, and college graduates. Table IV, page 19, shows the number of individuals in each group.

The type of work the graduate enters after leaving school, which will evidently have some influence on his later life will be considered in the third chapter. The following contributing factors will be considered: the individual's present occupation; the parents' occupation; individual's liking for the present occupation; those having chance for advancement; and the length of training period necessary to perform the duties of the occupation.

The relative earning power of the graduates will be analyzed in Chapter IV, including beginning weekly wages of

TABLE III

THE TOTAL AND PERCENTAGE OF GRADUATES LIVING IN JOHNSON CITY AND WASHINGTON COUNTY, IN OTHER COUNTIES AND OTHER CITIES IN THE STATE, AND IN OTHER STATES

	Johnson City and Washington County		Other Cities and Counties in Tenn.		Other States	
Year	Total	Per cent	Total	Per cent	Total	Per cent
1927	19	70.37	3	11.11	5	18.51
1928	29	72.50	4	10.00	7	17.50
1929	44	83.02	5	9.43	4	7.54
1930	33	73.33	4	8.88	8	18.77
1931	40	85.10	3	6.38	4	8.51
Total	165	77.82	19	8.96	28	13.20

NOTE: This table should be read as follows: Of the 1927 graduates nineteen or 70.37 per cent were living in Johnson City or Washington County, at the time of the investigation, three or 11.11 per cent were living in other cities and counties in Tennessee, and five or 18.51 per cent were living in other states.

TABLE IV

THE NUMBER AND PERCENTAGE OF GRADUATES, NON COLLEGE GRADUATES, AND COLLEGE GRADUATES

	Boys	Per cent	Girls	Per cent	Total	Per cent
Graduates	8	8.42	13	11.11	21	9.90
Non College Graduates	38	40.00	54	29.03	92	43.39
College Graduates	49	51.57	50	42.73	99	46.69
Total	95		117		212	

NOTE: Line two of the table should be read as follows: Thirty-eight boys or 40.00 per cent of the boys included in this study received additional educational work beyond high school but did not finish college; fifty-four girls or 29.03 per cent of the girls included in this study received additional educational work beyond high school but did not finish college.

graduates, considered along with special subjects taken in high school. Beginning weekly wages will be compared for college graduates, non college graduates, and high school graduates.

Some of the factors that would influence the graduate to be an ardent supporter of the school in later life will be topics for discussion in Chapter V. The following points will be discussed; high school subject most disliked; most useful high school subject, favorite high school subject, and the degree of which high school work prepared the graduate for the present job.

Chapter VI will be devoted to other factors relative to the high school graduate; namely, size of the family as a factor in further education; the order of birth as a factor in further education; the distribution of graduates in their respective occupation, with reference to their average grade in high school; distribution of graduates according to educational attainment with reference to their present weekly wages; items that need improvement and those to be added to the high school curriculum in the opinion of graduates.

In some of the tables in this study where the results show important sex differences, the boys and girls will be listed separately, otherwise they will be considered as a group.

CHAPTER III

THE OCCUPATION OF THE GRADUATES COMPARED WITH THAT OF THE FATHERS AND TRAINING PERIOD REQUIRED FOR THE GRADUATE TO PERFORM THE PRESENT JOB

Occupation of Students. The standard classification of occupations according to the United States Census[1] for 1930 was used since the census gives a classification of occupations for Johnson City, Tennessee. Not all of the census classifications, however, are represented in this study, consequently, only the applicable ones are listed in the table. In order to clarify the meaning of classifications some typical examples are given as follows:

Clerical Occupations--agents, collectors, bookkeepers, clerks, messengers, typists, stenographers, etc.

Domestic and Personal Service--barbers, bootblacks, charwomen, cleaning and dyeing shop workers, porters, servants, waiters, etc.

Manufacturing and Mechanical Industry--apprentices in all trades, bakers, carpenters, masons, dyers, painters, operators, sawyers, tin smith, textile industries, lumber and furniture industry, metal industry, etc.

Professional Service--actors, architects, artists, authors, chemists, teachers, dentists, lawyers, nurses,

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1 U. S. Department of Commerce, Bureau of The Census, Population Volume IV, Occupation by States, pp. 1521-2.

musicians, etc.

Trade--clerks, bankers, floor walkers, deliverymen, managers, salesmen, retail dealers, etc.

Transportation and Communication--road and street transportation (selected occupation), railroad transportation, motormen, mail carrier, radio, etc.

Table V, page 23, shows that twenty-nine boys or 31.05 per cent of the boys represented in this study were engaged in trade and twenty-five boys or 26.32 per cent of the boys were employed in manufacturing and mechanical industry. The third largest number twenty-one boys or 22.32 per cent were engaged in professional services. Eleven boys or 11.57 per cent were students presumably preparing for the professions, while four or 4.21 per cent were employed in transportation and communication. Agriculture and the clerical occupations had the same percentage rating 2.10 per cent with two boys in each. Manufacturing and mechanical industry ranks second in this survey and it has the same rating in the occupational classification of the total employed population in Tennessee 1930 census report.[2] Trade which is listed third in the 1930 census report was found to rank first in this study.

This table points out the facts that sixty-one girls or 52.13 per cent of the girls included in this study were

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2 Loc. cit.

TABLE V

THE NUMBER AND PERCENTAGE OF THE STUDENTS ENGAGED IN THE VARIOUS OCCUPATION GROUPS

Occupations	High School Graduates					
	Boys	Per cent	Girls	Per cent	Total	Per cent
Agriculture	2	2.10	1	.85	3	1.42
Clerical Occupations	2	2.10	6	5.13	8	3.77
Domestic and Personal Service	1	1.05	1	.85	2	.94
Manufacturing and Mechanical Industry	25	26.32	0	.00	25	11.79
Professional Service	21	22.10	61	52.14	82	38.68
Transportation and Communication	4	4.21	0	.00	4	1.89
Trade	29	30.52	10	8.55	39	18.40
Homemaking	0	.00	37	31.63	37	17.45
Students	11	11.57	1	.85	12	5.66
Total	95		117		212	

NOTE: This table should be read as follows: Two or 2.10 per cent of all boys included in this study, were employed in agriculture. One or .85 per cent of all girls included in this study were engaged in agriculture. A total of three or 1.42 per cent of the total graduates included in this study were engaged in agricultural pursuit.

employed in professional service. Approximately 80 per cent of the girls employed in professional service were teachers, there being 49 in this occupation, two were lawyers, and the remaining ten were nurses. Thirty-seven girls or 31.62 per cent were employed in homemaking; ten girls or 8.54 per cent were employed in trade while the clerical occupations employed six girls or 5.12 per cent. Two other occupations were tied for fourth place with one girl or .85 per cent in each. No girls were employed in transportation and communication or manufacturing and mechanical industry.

The Occupation of The Parents. The occupation of the parents to a great extent determines the place of residence and the social environment of the family.[3] Thus, it is necessary in this study to consider the vocation of the high school graduate's parents. The same classification of occupations used in classifying the high school graduate was used in this classification in order that the writer could make a comparison between the two tables.

Table VI shows that manufacturing and mechanical industry ranks first in number, and percentage of fathers employed, of both the boys and girls. One finds that twenty-five or 26.32 per cent of the fathers of all the boys included in this study are employed in manufacturing and

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3 Atchley, Mell H., "The 1928 High School Graduates of Blount County, Tennessee," 1933, p. 16.

mechanical industry, twenty-nine or 24.78 per cent of the fathers of all girls included in this study were employed in this occupational group, a total of fifty-four or 25.47 per cent of all fathers were employed in the manufacturing and mechanical industry group. Trade employs the next largest group with twenty-four or 25.25 per cent of all the boys' fathers; twenty-five or 21.36 of all the girls' fathers, and a total of forty-nine or 23.11 per cent of all the graduates' parents employed in trade. Professional service is third having fifteen or 15.78 per cent of the boys' fathers, twelve or 10.25 per cent of the girls' fathers, with a total of forty-nine or 23.11 per cent. Agriculture employed the third largest group with 7.36 per cent of the boys' fathers; eight or 6.83 per cent of the girls' fathers, making a total of fifteen or 7.07 per cent. One finds also that 5.25 per cent of the boys' fathers, and 8.54 per cent of the girls' fathers were deceased.

Manufacturing and mechanical industry employ the largest number of fathers. Approximately one-fourth of the total number were in this occupational pursuit. Practically the same number of fathers were employed in trade; the professional service with over one-eighth of the total group came third, with the remaining three-eights divided among four occupational groups.

Comparison of Occupations of Graduates With That of

TABLE VI

THE NUMBER AND PERCENTAGE OF FATHERS ENGAGED IN THE VARIOUS OCCUPATIONAL GROUPS

Occupational Group	Boys	Per cent	Girls	Per cent	Total	Per cent
Agriculture	7	7.36	8	6.83	15	7.07
Clerical Occupations	0	.00	3	2.56	3	1.41
Domestic and Personal Service	4	4.21	1	.85	5	2.35
Manufacturing and Mechanical Industry	25	26.32	29	24.79	54	25.47
Professional Service	15	15.78	12	10.26	27	12.73
Transportation and Communication	3	3.15	10	8.55	13	6.13
Trade	24	25.25	25	21.37	49	23.11
Retired	3	3.15	3	2.56	6	2.83
Deceased	5	5.25	10	8.54	15	7.07
Unemployed	3	3.16	2	1.70	5	2.35
Number not responding	6	6.31	14	11.80	20	9.43
Total	95		117		212	

NOTE: This table should be read as follows: Agriculture was the occupational group which included seven fathers of boys included in this study, this number being 7.36 per cent of all the boys fathers; eight fathers of girls or 6.83 per cent of all the girls' fathers were employed in agriculture.

Their Parents. In comparing the occupations of the graduates with that of their fathers one notes that the percentage of the boys employed in manufacturing and mechanical industry is the same as that of the parents. The graduates have 5.8 per cent more employed in trade than the fathers, while the greatest difference of 26.3 is in professional service. In observing the occupations of the fathers of the girl graduates one finds that they are fairly well distributed in the occupations as the boys' fathers are, but in a comparison between the girls occupations and that of their fathers a wide margin of difference exists. In most cases, however, this is to be expected. Two occupations, that of home making and professional service, employ 83.77 per cent of the girls.

The Employees Attitude Toward Their Job. The study of an occupational choice would not be complete or bear the same weight without considering the following points. (1) Do the employees have a chance for advancement? (2) Are the employees happy on the job? One notes in Table VII that eighty boys or 84.21 per cent of the boys employed liked their present job; while ninety-four girls or 80.34 per cent liked their present work. Only six boys or 6.32 per cent did not like their present employment, and only one girl or .85 per cent was not satisfied with her present occupation. One notes also, that twenty-two girls or 18.80 per cent did not reply to this question. This is probably due in part to

TABLE VII

THE NUMBER AND PERCENTAGE OF GRADUATES INCLUDED IN THIS STUDY WHO LIKED OR DISLIKED THEIR PRESENT JOB

	Boys	Per cent	Girls	Per cent	Total	Per cent
Number Liking Present Jobs	80	84.21	94	80.34	174	82.07
Number Disliking Present Job	6	6.32	1	.85	7	3.30
Number Not Responding	9	9.47	22	18.80	31	14.62
Total	95		117		212	

NOTE: This table should be read as follows: Eighty boys or 84.21 per cent of the boys included in this study liked their present job; ninety-four girls or 80.34 per cent of the girls included in this study liked their present occupation, etc.

a large number of girls being employed in home making who failed to give a reply to the question. "Interested in work," "chance for advancement," "service to the public," and "prepared for the work" are the four reasons most frequently given by the boys for liking their present occupations. One of the most outstanding facts is that 43.75 per cent of the boys gave as the reason for liking their present job, "interested in their work," while only 2.50 per cent replied that they "received good pay." "Interested in the work" was given by 47.87 per cent of the girls as the reason for liking their present position, while "preference" came second with 10.63 per cent; only 2.12 per cent of the girls gave "good pay" as the reason for liking their present job.

Comparison of Tables VII and VIII. In comparing Table VII and Table VIII one notes that the same number of boys had a chance for advancement that liked their present job, which advances the theory that if there is a chance for advancement the employees may have interest in their work. Only seventy or 59.82 per cent of the girls stated that they had a chance for advancement. Table V, page 23, reveals the fact that thirty-seven of the girls included in this study are employed at present in home making, and this eliminates their chance for advancement.

The Length Of Training Period Required. It must be recognized that as modern industry is organized there is an

TABLE VIII

THE NUMBERS AND PERCENTAGE OF GRADUATES INCLUDED IN THIS STUDY HAVING CHANCE FOR ADVANCEMENT

	Boys	Per cent	Girls	Per cent	Total	Per cent
Number Having Chance for Advancement	80	84.21	70	59.82	150	70.75
Little or no Chance for Advancement	6	6.32	8	6.93	14	6.60
Number Not Responding	9	9.47	39	33.33	48	22.64
Total	95		117		212	

enormous number of jobs for which no definite school training is needed before employment begins. The work is so highly specialized that it can be learned in a few days if not in a few hours.[4] Mead[5] found in his study of 4,032 different jobs in a large manufacturing plant in Detroit, that they could be classified according to the time required to become proficient, as follows:

1,743 jobs or 43 per cent required one day or less.

1,461 jobs or 36 per cent required one day to one week.

251 jobs or 6 per cent required one week to two weeks.

534 jobs or 1 per cent required one month to one year.

43 jobs or 1 per cent required one year to six years.

Specialization requires increased skill, and to be safe and really efficient, this skill must be based upon wide training of various kinds. The need for preparation is already seen in most of the professions.[6]

The writer wishes to point out the significant facts about Table IX in regard to the length of the training period. Fifty-five or 25.99 per cent of the graduates holding jobs were not given any definite training before entering into that particular job. Jones[7] states that in a large factory

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4 Myers, George E., The Problem of Vocational Guidance. The McMillian Company, New York, 1936. p. 153.
5 Mead, J. E., Salvage of Men, Ford Motor Company, 1917.
6 Jones, Arthur J., Principals of Guidance. McGraw-Hill Book Company, Inc., New York, 1934. pp. 75-76.
7 Ibid., p. 76.

TABLE IX

THE LENGTH OF TRAINING PERIOD REQUIRED BEYOND HIGH SCHOOL GRADUATION TO PREPARE GRADUATES FOR THEIR PRESENT JOB

Training Period	Boys	Girls	Total	Per cent
No Training Period Required	25	30	55	25.94
Three Months or Less	14	4	18	8.49
Six to Nine Months	2	17	19	8.95
One to Two Years	6	2	8	3.77
Two to Three Years	1	6	7	3.30
Three to Four Years	34	46	80	37.73
Number Not Responding	13	12	25	11.79
Total	95	117	212	

NOTE: This table should be read as follows: Twenty-five boys out of the ninety-five included in this study did not require any training period beyond high school to perform their present job. Thirty girls out of the one hundred and seventeen included in this study did not require any training beyond high school to perform their present job. Fifty-five or 25.94 per cent of all graduates did not require any training beyond high school to perform their present job.

twenty-five per cent of the employees required no training at all. One notes by observing Table IX, page 32, that fifty-five or 25.94 per cent of the individuals included in this group entered upon their occupational pursuit without receiving any special training in that field. The type of jobs the individuals were able to attain without training were salesmen, saleswomen, collectors, clerks in stores, service station operators, time keepers, cashier in stores, common labor, farm hand, dairymen, and home making. More than one-third of this entire group of individuals received six months or less training to enter the occupations listed above. Eighty or 37.73 per cent of the students included in this study required from three to four years training beyond high school; eighteen or 8.49 per cent required from six to nine months. The remainder of the students listed in this study was compelled to take from one to three years.

CHAPTER IV

THE RELATIVE EARNING POWER OF JOHNSON CITY HIGH SCHOOL GRADUATES

Relation of Higher Education To Financial Success. It has been customary to use as an argument for extended education the statement that persons who have reached a higher level of education than the average (attain a college degree) soon catch up in earning power with those who left school earlier and eventually surpass them. "Stay in school longer and you will profit financially" has been the text of many appeals to youth. This argument is frequently faulty in two respects. First it neglects the fact that those who reach higher levels may be of superior original ability, and second their greater income may be a consequence of this original ability rather than their added education.[1]

With these thoughts in mind the writer wishes to present the data gathered in regard to the beginning weekly wages of Science Hill High School graduates.

Beginning Weekly Wages of Graduates Taking Special Subjects in High School. Certain information was desired in regard to special subjects taken in high school to ascertain the relation of the elective subjects to the wage earnings

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1 Thorndike, Edward L., Prediction of Vocational Success, Oxford University Press, 1934, pp. 96-97.

of the graduates. Table X points out some very interesting facts in connection with special subjects, namely, twenty-seven boys or 28.42 per cent of all the boys included in this study who took mechanical drawing in high school and thirty-two boys or 33.69 per cent of all the boys included in this study who had shop work in high school, began working at a weekly wage from ten to fourteen dollars. The second greatest number of boys thirteen or 13.68 per cent of all the boys who took mechanical drawing in high school had a beginning weekly wage from fifteen to nineteen dollars per week, while eight boys the third largest number or 8.42 per cent of all the boys had mechanical drawing and started work for twenty-five to twenty-nine dollars per week. Of those who had taken shop work, however, there were nine boys or 9.47 per cent of all the boys included in this study, who began work in each of the groups, twenty to twenty-four and twenty-five to twenty-nine dollars per week. No boy taking these special subjects in high school reported a beginning weekly wage of over twenty-nine dollars per week. Three boys, the same number from both the mechanical drawing and the shop work groups, had a varied beginning weekly wage which probably meant that they were working on a fee or commission basis.

In the group of girls whose initial weekly wage was from ten to fourteen dollars there were thirty-seven who reported cooking as a high school subject; the same number

TABLE X

THE NUMBER AND PERCENTAGE OF STUDENTS TAKING THE FOLLOWING SPECIAL SUBJECTS COOKING, HOME NURSING, MECHANICAL DRAWING, SHOP WORK, AND SEWING, WITH THEIR BEGINNING WEEKLY WAGES

Weekly Wage Range	Cooking		Home Nursing		Mechanical Drawing		Shop Work		Sewing	
	Girls	Per cent	Girls	Per cent	Boys	Per cent	Boys	Per cent	Girls	Per cent
$10 - $14	37	31.63	4	3.41	27	28.42	32	33.69	37	31.63
$14 - $19	20	17.09	3	2.56	13	13.68	13	13.68	20	17.09
$20 - $24	28	23.93	7	5.98	7	7.36	9	9.47	26	22.22
$25 - $29	3	2.56	1	.85	8	8.42	9	9.47	3	2.56
$30 - $34	0	.00	0	.00	0	.00	0	.00	0	.00
$35 or over	1	.85	1	.85	0	.00	0	.00	1	.85
Varied	5	4.27	1	.85	3	3.15	3	3.15	5	4.27
Homemaking	37	31.63	10	8.55	0	.00	0	.00	36	30.76
Unemployed	2	1.70	0	.00	1	1.05	1	1.05	2	1.70

NOTE: This table should be read as follows: Thirty-seven or 31.62 per cent of the girls included in this study had cooking in high school, and had a beginning weekly wage from ten to fourteen dollars; four or 3.41 per cent of the girls included in this study took home nursing in high school and had a beginning weekly wage from ten to fourteen dollars.

reported sewing while four listed home nursing. The thirty-seven girls represented 31.63 per cent of the total and the four represented 3.41 per cent. Of the girls who began work for a weekly wage from twenty to twenty-four dollars there were twenty-eight or 23.93 per cent of the total who listed cooking as a high school subject; twenty-six or 22.22 per cent of the total who reported sewing, with seven or 5.98 per cent of the total group listed home nursing. The third largest group of girls shown in this table began work for fifteen to nineteen dollars per week. Of this group there were twenty who reported cooking as a high school subject; the same number however gave sewing with three listing home nursing. The twenty represented 17.09 per cent of the total and the three represented 2.56 per cent. Of the individual girls whose beginning weekly wage was from twenty-five to twenty-nine dollars there were three who reported cooking and sewing as a high school subject while only one listed home nursing. The three however only represented 2.56 per cent of the total number of girls. Only one girl had a beginning weekly wage over thirty-five dollars and she listed cooking, sewing and home nursing as high school subjects. Three girls, the same number from both the cooking and sewing group, had a varied beginning weekly wage which probably meant that they were working on a fee or commission basis. It is worthy of note that thirty-seven or 31.63 per cent of the girls included in

this study were employed in homemaking with no weekly wage and this group all had cooking in high school. Thirty-six or 30.63 per cent of the girls included in this study were employed in homemaking with no beginning weekly wage and had taken sewing in high school.

Table XI lists the boys and girls who had taken bookkeeping and chemistry in high school and portrays the fact that in the group of boys whose beginning weekly wage was from ten to fourteen dollars there were twelve boys, or 12.63 per cent of all the boys, who listed bookkeeping as a high school subject, and thirteen boys, or 13.68 per cent, reported chemistry as a high school subject. In the group of boys whose initial weekly wage was from fifteen to nineteen dollars there were five who reported bookkeeping as a high school subject and eight listed chemistry. Only a comparatively small number of boys reporting bookkeeping and chemistry as a high school subject were listed with a beginning weekly wage over twenty dollars.

Of the group of girls whose beginning weekly wage was from ten to fourteen dollars there were thirteen girls or 11.11 per cent of all the girls who reported bookkeeping as a high school subject. Twenty-five girls or 21.37 per cent of the group reported chemistry as a subject in high school. Only a small number of girls reported bookkeeping as a high school subject began work for over fifteen dollars per week.

TABLE XI

THE NUMBER AND PERCENTAGE OF GRADUATES TAKING BOOKKEEPING AND CHEMISTRY IN HIGH SCHOOL, AND THEIR BEGINNING WEEKLY WAGES

Weekly Wage Range	Bookkeeping				Chemistry			
	Boys	Per cent	Girls	Per cent	Boys	Per cent	Girls	Per cent
$10 - $14	12	12.63	13	11.11	13	13.68	25	21.37
$15 - $19	5	5.25	1	.85	8	8.42	16	13.67
$20 - $24	4	4.21	6	5.02	2	2.10	22	18.80
$25 - $29	2	2.10	0	.00	5	5.25	2	1.70
$30 - $34	0	.00	0	.00	0	.00	0	.00
$35 or over	0	.00	1	.85	0	.00	0	.00
Varied	0	.00	3	2.56	4	4.21	0	.00
Homemaking	0	.00	5	2.56	0	.00	26	22.22
Unemployed	0	.00	0	.00	0	.00	1	.85

NOTE: This table should be read as follows: Twelve or 12.63 per cent of the boys included in this study had bookkeeping in high school, and had a beginning weekly wage from ten to fourteen dollars; thirteen or 11.11 per cent of the girls included in this study had bookkeeping in high school and had a beginning weekly wage from ten to fourteen dollars.

Of those whose beginning weekly wage was from fifteen to nineteen dollars there were sixteen reported chemistry as a high school subject, twenty-two girls began work at twenty to twenty-four dollars per week, and listed chemistry as a high school subject. The twenty-two represented approximately one-sixth of the entire group.

Table XII presents the following information in regard to the graduates included in this study who reported physics, shorthand, and typewriting as a high school subject. The beginning weekly wage from ten to fourteen dollars was listed by the largest number of boys and girls in all three groups. Twenty-seven boys or 28.42 per cent of the total reported physics as a high school subject; fourteen boys or 14.73 per cent listed typewriting, while only one gave shorthand. Only a very small number of boys and girls who had a beginning weekly wage of over fourteen dollars reported shorthand as a high school subject, and only one girl listed physics as a high school subject. The second largest number reported an initial weekly wage from twenty to twenty-four dollars for the girls with sixteen or 13.67 per cent who listed typewriting, while ten boys or 10.52 per cent were listed in this group, and also in the fifteen to nineteen dollars per week. There were eight girls who began work at a weekly wage from fifteen to nineteen dollars who reported typewriting as a high school subject. Only a small proportion of the remaining

TABLE XII

THE NUMBER AND PERCENTAGE OF GRADUATES TAKING THE FOLLOWING SPECIAL SUBJECTS: PHYSICS, SHORTHAND, AND TYPEWRITING, WITH THEIR BEGINNING WEEKLY WAGES

Weekly Wage Range	Physics				Shorthand				Typewriting			
	Boys	Per cent	Girls	Per cent	Boys	Per cent	Girls	Per cent	Boys	Per cent	Girls	Per cent
$10 - $14	27	28.42	1	.85	1	1.05	11	9.40	14	14.73	17	14.52
$15 - $19	10	10.52	0	.00	1	1.05	1	.85	7	7.36	8	6.83
$20 - $24	10	10.52	0	.00	0	.00	2	1.70	6	6.32	16	13.67
$25 - $29	6	6.32	0	.00	0	.00	1	.85	2	2.10	3	2.56
$30 - $34	0	.00	0	.00	0	.00	0	.00	0	.00	0	.00
$35 or over	1	1.05	1	.85	0	.00	0	.00	0	.00	0	.00
Varied	3	3.15	2	1.70	0	.00	0	.00	1	1.05	3	2.56
Homemaking	0	.00	3	2.56	0	.00	4	3.41	0	.00	0	.00
Unemployed	0	.00	1	.85	0	.00	0	.00	1	1.05	0	.00

NOTE: This table should be read as follows: Twenty-seven or 28.42 per cent of the boys included in this study took physics in high school and had a beginning weekly wage from ten to fourteen dollars; one of the girls included in this study took physics in high school and had a beginning weekly wage from ten to fourteen dollars.

number of individuals listed either of the three subjects as one of their electives in high school.

It is worthy of note that only two individuals of the two hundred and twelve included in this study failed to take an elective subject in high school. These two persons were boys, and they began work at a weekly wage of nine and twelve dollars respectively.

Graduates Taking Special Training. The writer found as shown by Table XIII that twenty-eight or 13.20 per cent of the graduates included in this study entered business college, training school for nurses, or entered an apprentice training course in some trade. In the group that had a beginning weekly wage from ten to fourteen dollars there were five boys and fifteen girls or a total of twenty, making 71.42 per cent of this group. A total of four or 14.28 per cent of the individuals included in this group began work for fifteen to nineteen dollars per week. The only person listed in this group who received over twenty-nine dollars per week was a girl and she received over thirty-five dollars per week. This person received training as a nurse and entered the government employ as a supervisor for nurses in a sanitorium for disabled soldiers.

The Non-College Graduate. Table XIII reveals that of the individuals in this group who began work for fifteen to nineteen dollars per week, there were seven boys and eight

TABLE XIII

THE BEGINNING WEEKLY WAGE OF THE COLLEGE GRADUATE, NON-COLLEGE GRADUATE, THOSE TAKING SPECIAL TRAINING, AND THE GRADUATE

Weekly Wage Range	College Graduate				Non-college Graduate				Special Training				Graduate			
	B	G	T	Per cent	B	G	T	Per cent	B	G	T	Per cent	B	G	T	Per cent
$10 - $14	11	7	18	18.18	18	14	32	50.00	5	15	20	71.42	7	5	12	57.14
$15 - $19	6	9	15	15.15	7	8	15	23.43	1	3	4	14.28	1	3	4	19.04
$20 - $24	14	27	41	41.41	1	2	3	4.70	1	1	2	7.14	0	0	0	.00
$25 - $29	6	2	8	8.08	1	1	2	3.12	1	0	1	3.57	0	0	0	.00
$30 - $34	0	0	0	.00	0	0	0	.00	0	0	0	.00	0	0	0	.00
$35 or over	1	0	1	1.01	0	0	0	.00	0	1	1	3.57	0	0	0	.00
Varied	9	1	10	10.10	0	0	0	.00	0	0	0	.00	0	0	0	.00
Homemaking	0	3	3	3.03	0	7	7	10.93	0	0	0	.00	0	5	5	23.80
Unemployed	2	1	3	3.03	0	1	1	1.56	0	0	0	.00	0	0	0	.00
Students	0	0	0	.00	3	1	4	6.25	0	0	0	.00	0	0	0	.00
Total	49	50	99		30	34	64		8	20	28		8	13	21	

NOTE: This table should be read as follows: Eleven boys, seven girls, total eighteen, or 18.18 per cent of the graduates completing college, had a beginning weekly wage from ten to fourteen dollars, etc.

girls a total of more than 23 per cent of this group. Of the individuals who began work for a weekly wage of ten to fourteen dollars there were eighteen boys fourteen girls totaling thirty-two or 50 per cent of the individuals included in this group. The third largest group began their work at a weekly wage of twenty to twenty-four dollars, with no individual in this group receiving over twenty-nine dollars per week.

The High School Graduates Who Failed to Continue Educational Work. Table XIII portrays the fact that only twenty-one graduates included in this study did not continue their school work after graduation from high school. Twelve of these or 57.14 per cent of the total began work at a wage from ten to fourteen dollars. Four persons or 19.04 per cent of this group had a beginning weekly wage which ranged from fifteen to nineteen dollars. None of this group had an initial weekly wage of over nineteen dollars.

The College Graduate. One interesting fact revealed in this study, is that the initial weekly wage from twenty to twenty-four dollars was received by forty-one college graduates or 41.41 per cent of the individuals completing the four year college course. The second largest number of college graduates, eighteen or 18.18 per cent began work for ten to fourteen dollars per week, while the third largest group was fifteen or 15.15 per cent who started work for fifteen to nineteen dollars per week. One notes that ten or 10.10 per

cent of the graduates began work at a varied salary, which probably meant they were working on a fee or commission basis. The starting weekly wage of twenty-five to twenty-nine dollars was given by eight of the college graduates, while one reported a beginning weekly wage of over thirty-five dollars. This individual was "manager of a hotel and investment house."

The Present Weekly Wage Of The Graduates. Table XIV presents the data in regard to the present weekly wage of the graduate. Only three classifications were used in this table, that of the college graduate, further education, and the graduate. The non college graduate and those taking special training seemed to have progressed in approximately the same proportion in regard to wages and so these two groups were recorded in the same column. In Table XIV one finds that only six college graduates are receiving less than twenty dollars per week, while those receiving further education have thirty-two individuals or more than one-third of this group that received less than twenty dollars per week. Of those whose present weekly wage was less than twenty dollars the graduate has nine or more than 40 per cent of their total in this group. In the group of college graduates whose weekly wage was from twenty to twenty-four dollars there were forty-three or more than 40 per cent of the total number in this group. The second largest group of college graduates, seventeen were receiving a weekly wage from twenty-five to

TABLE XIV

THE PRESENT WEEKLY WAGE OF THE COLLEGE GRADUATE, ADDITIONAL EDUCATION, AND THE GRADUATE

Weekly Wage Range	College Graduate			Further Education			Graduate		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
$10 - $14	0	0	0	4	9	13	1	4	5
$15 - $19	3	3	6	8	11	19	2	2	4
$20 - $24	9	34	43	7	8	15	2	0	2
$25 - $29	14	3	17	9	0	9	2	0	2
$30 - $34	4	1	5	1	1	2	0	0	0
$35 or over	6	1	7	1	2	3	0	0	0
Varied	8	1	9	2	2	4	0	0	0
Home making	0	7	7	0	20	20	0	5	5
Students	5	0	5	6	1	7	0	0	0
Total	49	50	99	38	54	92	8	13	21

NOTE: Line two of this table should be read as follows: Three boys and three girls or a total of six individuals included in this study, completed four years of college work and are working for a present weekly wage of fifteen to nineteen dollars: Eight boys and eleven girls or a total of nineteen received additional education work beyond high school graduation and are at present receiving fifteen to nineteen dollars per week.

twenty-nine dollars. It is worthy of note that twenty-nine college graduates were receiving more than twenty-five dollars per week, while five were still in school taking additional education work beyond college graduation in preparation to enter the professions. Of those who received additional education work beyond high school graduation the largest group of nineteen were receiving from fifteen to nineteen dollars per week, with fifteen who received twenty to twenty-four dollars per week being the second largest group. One notes that approximately one-seventh of this group were still receiving a weekly wage from ten to fourteen dollars, while only fourteen were receiving over twenty-five dollars per week. In this group however twenty girls or more than one-third of the total number of girls were employed in homemaking. In the group of high school graduates who failed to take additional education work more than 40 per cent were at present receiving less than twenty dollars per week, and only 9 per cent were receiving over twenty-five dollars per week.

The facts revealed in this chapter seem to indicate that the college graduate has the advantage over the other groups in obtaining jobs with a higher initial weekly wage. The study would also indicate that the rate of wage progress was faster for the college graduate. Whether these trends are the result of the added education or of higher superior innate ability is open to question.

CHAPTER V

IN THE OPINION OF GRADUATES, TO WHAT EXTENT DID THEIR HIGH SCHOOL WORK PREPARE THEM FOR THEIR PRESENT JOB

Factors Influencing The Graduates in High School. In this chapter, consideration will be given to some of the outstanding factors in high school that may have been influential in causing the graduate to further his education or to drop out of school and go to work. In endeavoring to obtain the reactions of the graduates toward the high school subjects questions were included asking for specific information in regard to his likes and dislikes in connection with high school subjects. Information was desired also in regard to the subject that was considered of most value to the graduate.

Favorite High School Subject. In the questionnaire the students were asked to name their favorite high school subject. About 10 per cent of the individuals named more than one favorite subject. Only the first one on the list, in the case of those who listed more than one subject, is recorded in Table XV.

The figures in Table XV reveal the facts that out of the two hundred twelve graduates one hundred eighty listed these five subjects as their favorites, English, mathematics, home economics, history and natural sciences (general science,

biology, chemistry and physics). They are mentioned here in the order of popularity. The remaining thirty-two graduates gave various other subjects as their favorites, with no subject having more than nine individuals listing it as such.

Of the required subjects English was the favorite with sixty-four or 30.18 per cent. This constituted more than one-fourth of the individuals included in this study. Approximately 50 per cent of the girls however gave English as their favorite subject, while only eleven boys listed English as their favorite. The eleven boys however represented more than one-tenth of the total number of boys. Mathematics was listed second in the favorite subjects with twenty or more than one-fifth of the boys giving some form of mathematics as their favorite subject. Only twelve girls however listed mathematics as their favorite subject. The twelve represented more than 10 per cent of the girls. Home economics was listed by twenty-nine girls as their favorite subject, this number representing approximately one-fourth of the total number of girls. The fourth largest number of girls, seven, gave history as their favorite subject. The remaining fourteen girls included in this study listed six other subjects as their favorites with no subject having more than four individuals listing it as such. The boys favorite high school subject indicated a tie between history and the natural sciences, there being twenty-two boys or more than one-fifth of the boys listing each.

TABLE XV

THE FAVORITE HIGH SCHOOL SUBJECTS, THE NUMBER, AND PERCENTAGES OF STUDENTS REPRESENTING EACH

	Graduates			
Subjects	Boys	Girls	Total	Per cent
Bookkeeping	0	3	3	1.41
English	11	53	64	30.18
French	1	1	2	.94
History	22	7	29	13.67
Home Nursing	0	1	1	.47
Home Economics	0	29	29	13.67
Latin	4	3	7	3.30
Mathematics	20	12	32	15.09
Music	0	2	2	.94
Mechanical Drawing	2	0	2	.94
Natural Sciences	22	4	26	12.26
Shop Work	9	0	9	4.24
Number Failing to Respond or Undecided	4	2	6	2.83
Total	95	117	212	

NOTE: This table should be read as follows: Eleven boys, fifty-three girls, totaling sixty-four or 30.18 per cent of the graduates included in this study, listed English as their favorite subject.

Mathematics was the third favorite subject for boys with the twenty or more than 20 per cent of the boys listing this subject. Nine boys gave shop work as their favorite subject while the other seven individuals listed three subjects as their favorite with neither subject having more than four individuals listing it as such.

High School Subjects Most Disliked. In contrast to the favorite high school subject consideration was also given to the high school subject most disliked.

Of the two hundred twelve graduates seventy-five or 34.90 per cent listed some form of mathematics as the subject most disliked. Fifty-six girls or almost 50 per cent of the total number of girls gave some form of mathematics as the subject most disliked. Forty or 18.86 per cent of the total number of individuals gave history as the subject most disliked. Of this number twenty-five were girls, which would constitute more than one-fifth of the total number of girls. Thirty-four individuals or 16.03 per cent of the total number listed Latin as the subject most disliked. Practically the same number of boys and girls gave this subject as being disliked. Music was the subject least disliked by the two hundred twelve students, however it was an elective subject and fewer individuals came in contact with that subject. Literature, mechanical drawing and shop work were tied for second place in subjects least disliked with two individuals

TABLE XVI

HIGH SCHOOL SUBJECTS MOST DISLIKED, THE NUMBER, AND PERCENTAGE OF STUDENTS REPRESENTING EACH

	Graduates			
Subjects	Boys	Girls	Total	Per cent
Biology	2	1	3	1.41
Chemistry	4	6	10	4.71
English	7	1	8	3.77
Foreign Language	10	3	13	6.13
History	15	25	40	18.86
Home Economics	0	3	3	1.41
Latin	18	16	34	16.03
Literature	2	0	2	.94
Mathematics	19	56	75	35.37
Mechanical Drawing	2	0	2	.94
Music	1	0	1	.47
Shop Work	2	0	2	.94
Number Failing to Respond or Undecided	13	6	13	8.96
Total	95	117	212	

NOTE: This table should be read as follows: Two boys, one girl, total three or 1.41 per cent of the graduates included in this study, listed biology as the most disliked subject in high school.

or .94 per cent. Three subjects, mathematics, history and Latin, were named by more than 82 per cent of the girls as the most disliked subject, mathematics alone receiving more than fifty per cent of this number. Mathematics, Latin, history and foreign language were given by approximately 65 per cent of the boys as the four most disliked subjects. Atchley[1] found in his study that mathematics came second in subjects disliked, with Latin being first. He found also, that the natural sciences were first in the favorite high school subject with English listed as second.

In comparing Table XV with Table XVI one notes that mathematics which was listed in the favorite subjects, was first by a large majority in the most disliked subjects. This would indicate that those individuals who liked mathematics liked it very much and those who disliked it were equally positive in their opinion. English, which is listed first as the favorite subject by the total number of first choices was only mentioned by eight graduates or 3.77 per cent of all the graduates as being disliked.

Most Useful High School Subject. In connection with the study of the favorite high school subject Table XVII, page 54, gives the reaction of the graduates in regard to

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1 Atchley, Mell H., "The 1928 High School Graduates of Blount County, Tennessee," Masters Thesis, University of Tennessee, 1933, pp. 40-41.

TABLE XVII

THE NUMBER AND PERCENTAGE OF GRADUATES LISTING THE MOST USEFUL SUBJECT

Subjects	Boys	Girls	Total	Per cent
Bookkeeping	0	2	2	.94
English	29	62	91	42.92
History	1	2	3	1.41
Home Economics	0	24	24	11.32
Latin	5	4	9	4.24
Literature	2	1	3	1.41
Mathematics	28	5	33	15.56
Mechanical Drawing	1	0	1	.47
Natural Sciences	13	1	14	6.60
Shorthand	0	1	1	.47
Shop Work	2	0	2	.94
Typing	4	5	9	4.24
Number Not Responding	10	10	20	9.43
Total	95	117	212	

NOTE: This table should be read as follows: Twenty-nine boys, sixty-two girls, total ninety-one or 42.92 per cent of the graduates listed english as the most useful subject.

the subject which they consider the most useful in their present activities.

Table XVII portrays the fact that English was listed as the most useful subject by twenty-nine boys and sixty-two girls totaling ninety-one or 42.92 per cent of the graduates included in this study. The most outstanding fact however is that sixty-two girls or more than 50 per cent of all the girls included in this study gave English as the most useful high school subject. Mathematics was rated second in the list of most useful subjects, and a total of twenty-eight boys named this subject as being most useful. This was more than one-fourth of the total number of boys included in the study. Mathematics was listed second to English as the most useful subject, there being a difference of only one. The natural sciences received the approval of the third largest group of boys, there being thirteen individuals represented in this group. The girls however listed home economics second as their favorite subject with a total of twenty or approximately one-sixth of the total group. One notes that two subjects, English and home economics, received the approval of 73.50 per cent of the girls included in this study as being the most useful.

In comparing the favorite high school subject in Table XV with the list of most useful ones in Table XVII one notes that three subjects that of French, music and home nursing

listed in the table as being favorite subjects were not mentioned by a single individual as being useful. English ranks first as a favorite subject and also first as the most useful one. Mathematics, home economics and natural sciences rank next in order mentioned in both the favorite and most useful high school subjects.

Graduates Opinion on Permanent Benefit Received From High School Subjects. In referring to Table XVIII one finds that fifty-two or 54.73 per cent of the boys included in this group stated that their high school work helped them "Much" in preparation for the duties of their present job. Thirty-two or 33.57 per cent advanced the information that their high school work helped them very little in performing the duties of their present occupation. Without indulging in any comment as to possible reasons it is interesting to note that five or 5.26 per cent of the boys included in this study did not receive any preparation for performing the duties of their present occupation while in high school. Eighty-one or 69.23 per cent of the girls included in this study received "Much help from their high school work, to prepare them for the duties of their present job; twenty-one or 17.94 per cent received very little help for their present job from work pursued in the high school. Again without indulging in any comment as to possible reasons one notes that 3.41 per cent of the girls stated they did not receive any help from their

TABLE XVIII

THE DEGREE IN WHICH THE GRADUATES BELIEVED THEIR HIGH SCHOOL WORK GAVE THEM PREPARATION FOR PRESENT OCCUPATION

Degree	Boys	Per cent	Girls	Per cent	Total	Per cent
Much	52	54.73	81	69.23	133	62.73
Little	32	33.57	21	17.94	53	25.00
None	5	5.26	4	3.41	9	4.24
Not Replying	6	6.31	11	9.40	17	8.02
Total	95		117		212	

NOTE: This table should be read as follows: Fifty-two of the boys or 54.73 per cent received "much" preparation from their high school work to prepare them for present occupation. Eighty girls or 69.23 per cent received much preparation from their high school work to prepare them for their present job.

high school preparation for the duties of their present occupation.

CHAPTER VI

OTHER FACTORS RELATIVE TO THE SCIENCE HILL HIGH SCHOOL GRADUATE

How does the size of the family affect the chance of securing a college education? Does the order of birth have any effect upon further education or is the order of birth a matter of consequence?

It is natural to suppose that the number of children in the family is an important factor in determining the richness of the opportunity to be offered a particular child. Some have advocated limiting the birth rate on the grounds that fewer children mean greater advantages for those who are born. Counts[1] found that the first born children are handicapped in the struggle of life more than their younger brothers and sisters, because on them in most instances falls the burden of contributing to the family support.

The Relation of Size of Family to Education. Table XIX presents the data in regard to the question of the relation between size of family and further education. In this study the questionnaire returns give data for two hundred twelve students. Examining Table XIX with reference to the high

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1 Counts, G. S., The Selective Character of American Secondary Education, University of Chicago Press, Chicago, Illinois, 1922, pp. 104-5.

TABLE XIX

THE NUMBER AND PERCENTAGE OF STUDENTS COMPLETING HIGH SCHOOL, TAKING WORK BEYOND HIGH SCHOOL, AND COMPLETING COLLEGE WITH REFERENCE TO SIZE OF FAMILY

Size of Family	Completing High School			Further Education				Completing College			
	Boys	Girls	Total	Boys	Girls	Total	Per cent	Boys	Girls	Total	Per cent
One child in Family	8	11	19	7	11	18	94.73	7	6	13	68.42
Two in Family	18	23	41	15	21	36	87.80	6	11	17	41.46
Three in Family	18	20	38	15	17	32	84.21	9	6	15	39.47
Four in Family	30	31	61	30	29	59	96.72	17	15	32	52.45
Five in Family	10	9	19	10	6	16	84.21	7	4	11	57.89
Six or More in Family	11	23	34	10	20	30	88.23	3	8	11	32.35
Total	95	117	212	87	104	191	90.09	49	50	99	46.69

NOTE: This table should be read as follows: Eight boys, eleven girls, total nineteen of the graduates included in this study were from families with only one child: Seven boys, eleven girls, total eighteen or 94.73 per cent of this group received additional educational after graduation: Seven boys, six girls, total thirteen or 68.42 per cent of those boys and girls graduated from college.

school graduates one notes that the largest number came from families with four children; the second largest group came from families with two children; the third largest group came from families of three children; while the family of six or more children furnished the fourth largest group. The smallest number of graduates indicated a tie between the families of one child, and the family with five children. Of the two hundred twelve students included in this investigation one hundred and ninety-one or 90.09 per cent entered college or private schools; ninety-nine or 46.69 per cent received college degrees. The figures given by Boutwell[2] show that for the United States 61.5 per cent of the high school graduates entered college, of those who entered 68.8 per cent withdraw before graduation and 31.2 per cent are graduated. The college entrance group for the United States is 28.5 per cent lower than for the entrance of this study. Boutwell failed to take into consideration those graduates entering private or trade schools, while this study gives consideration to those having further education regardless of whether they received it in college or private school. The non graduates or those dropping out of college before having completed a college course, for the United States is 15.6 per cent lower than this study also. The graduate group of this study is

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2 Boutwell, W. D., "Tell The People Significant Facts About Their Schools," School Life, October 1932, Vol. XVII, p. 21.

8.3 per cent greater than that for the United States. In 1926, W. A. Bass, state high school supervisor at that time, made a study of the county high school graduates of Tennessee and found that 45.9 per cent went to college which is 34.2 per cent less than the figures for this study.[3] The difference between the larger number of students entering college in this study and other similar ones is taken care of in part by Boutwell[4] when he states that the chances for a boy or girl going to college are increasing each year, and the chances of a boy or girl going to college, which were only one in thirty-three in 1900, were one in six in 1932.

Table XIX reveals the following information in regard to individuals completing high school. Sixty-one or 28.77 per cent came from families having four children; forty-one or 19.34 per cent came from families having two children. The third largest group, thirty-eight or 17.92 per cent, came from families with three children. The fourth largest group came from families having six or more children, while the families having five and three children respectively were tied for fifth place with nineteen individuals in each group.

Further study of Table XIX shows that 94.73 per cent of families having only one child provided additional education

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3 Atchley, Mell H., "The 1928 High School Graduates of Blount County, Tennessee," unpublished Master's thesis, University of Tennessee, 1933.

4 Loc. cit.

beyond high school for their children, and that 68.42 per cent of the entire group finished college. One finds that the families having four children take second place with 96.72 per cent of the individuals receiving educational work beyond high school, but they drop to third place with only 52.45 per cent finishing college. The families having five children were second with 57.89 per cent finishing college, but were third with only 84.21 per cent receiving training beyond high school.

It is evident by this study that the size of the family has no relation to the amount of education received by individuals.

The Order of Birth in Relation to Education. In examining Table XX in regard to the order of birth one notes that eighty-five or 40.09 per cent of the individuals included in this study were the first born child. Forty-six or 21.69 per cent were the second child, with thirty-three or 15.56 per cent of the students being born third. Of the individuals that were born fourth there were twenty-eight or 13.21 per cent. There were only eleven individuals born seventh or later and they were placed in one group. In examining the list of graduates who failed to receive further educational preparation one notes that 33.33 per cent of the children born fifth failed to receive further education. The first born child came second with 11.76 per cent failing to receive additional educational work, with the fourth, second

TABLE XX

THE NUMBER AND PERCENTAGE OF GRADUATES
IN RELATION TO THE ORDER OF BIRTH

Order of Birth	Total Number Students		Graduates		Further Education		College Graduate	
	Total	Per cent	Total	Per cent	Total	Per cent	Total	Per cent
First	85	40.09	10	11.76	33	38.82	42	49.41
Second	46	21.69	4	8.69	21	45.65	21	45.65
Third	33	15.56	2	6.06	20	60.60	11	33.33
Fourth	28	13.21	3	10.71	11	39.28	14	50.00
Fifth	6	2.83	2	33.33	1	16.66	3	50.00
Sixth	3	1.41	0	.00	1	33.33	2	66.66
Seventh or later	11	5.19	0	.00	5	45.45	6	54.54
Total	212		21		92		99	

NOTE: This table should be read as follows: Eighty-five graduates or 40.09 per cent of the total individuals included in this study were the first born, ten or 11.76 per cent of this group did not receive additional educational work after graduation, thirty-three or 38.82 per cent had additional educational work but did not complete a college course, forty-two or 49.41 per cent of this group completed a four year college course.

and third ranking next in order mentioned. Of the group of individuals receiving further education the third child had the advantage with the second and seventh or later born children almost equal in educational advantages beyond high school. The fourth child came next with 39.28 per cent of the total listed in this group had further education but did not complete college; the first and sixth children were next in line with 38.82 and 33.33 per cent respectively. The writer noted in the college graduate group that the sixth child seemed to have the educational advantage with 66.66 per cent of this group completing college. The seventh or later born children came second with 54.54 per cent while the fourth and fifth born children were tied for third place with 50 per cent of each group finishing college. The first child was fifth in attaining a college education with 49.41 per cent; the second child came sixth with 45.65 per cent, while the largest per cent of children that were born third failed to attain a college education. It is apparent that the figures are so varied that no general deduction can be made except that the first born child has no decided advantages over others in the matter of completing college or securing further education.

The Relation of High School Grades to Occupations.

Table XXI portrays the fact that out of the eighty-two individuals included in this study employed in professional service there were four boys and eleven girls having an average high

TABLE XXI

THE DISTRIBUTION OF GRADUATES IN THEIR RESPECTIVE OCCUPATIONS WITH REFERENCE TO THEIR AVERAGE GRADE IN HIGH SCHOOL

Occupations	Total Employed	70-79		80-89		90 or above	
		Boys	Girls	Boys	Girls	Boys	Girls
Agriculture	3	0	0	1	1	1	0
Clerical Occupations	8	0	0	0	6	2	0
Domestic and Personal Service	2	1	0	0	0	0	1
Manufacturing and Mechanical Industry	25	4	0	16	0	5	0
Professional Service	82	4	11	12	34	5	16
Transportation and Communication	4	1	0	2	0	1	0
Trade	39	15	3	12	5	2	2
Homemaking	37	10	14	0	20	0	3
Students	12	2	1	6	0	3	0
Total	212	27	29	49	66	19	22

NOTE: Line five of this table should be read as follows: Eighty-two individuals included in this study were engaged in professional service, four boys and five girls of this group's average grade in high school was between 70-79, twelve boys and thirty-four girls of this group's average grade in high school was between 80-89.

school grade between 70-79; twelve boys thirty-four girls with an average between 80-89; while five boys and sixteen girls received 90 or above for an average. The second largest group employed in any one occupation was that of trade with thirty-nine individuals, of this group fifteen boys and three girls received an average grade in high school from 70-79; twelve boys and five girls received 80-89 for an average, while two boys and two girls received an average of 90 or above. Home-making employed the next largest group with thirty-seven girls, fourteen having an average grade from 70-79; twenty an average from 80-89 with three individuals in this group having 90 or above for their average. Manufacturing and mechanical industry stands fourth from the top with twenty-five boys. Four of the group fell in the 70-79 average; sixteen had an average between 80-89, while five had an average above 90. One notes that in each occupation the individuals were fairly well distributed in the three grade levels with the exception of agriculture and clerical occupations. These occupations did not have an individual in the lower average. This may be due in part to the fact that only a small number were employed in these occupations. Trade employed the largest group of individuals having the lowest mark as almost 50 per cent of this group had an average between 70-79. The majority of the individuals having the highest average school marks are employed in the professional service group, there being almost

one-fourth of this group making a grade of ninety or above, and more than 80 per cent having an average high school grade above eighty. There were twenty-one boys out of twenty-five or 84 per cent of the individuals employed in manufacturing and mechanical industry who received an average high school grade above eighty.

Improvement in The Curriculum. Revision of the curriculum of the school might be an important step in causing the graduates to take additional education work as well as preventing elimination before graduation. The curriculum does not ordinarily make enough provision for individual difference. For the most part it is built on requirements for college entrance with little thought for the students who do not want a college education. While attempting to prepare students for college entrance the school may fail to give the individual preparation for taking up citizenship duties in our complex civilization. Too long the high school has clung to the so-called cultural courses, justifying them by saying that they provide for a better appreciation of literature and art forgetting that very few people gain their livelihood or seek their recreation through such channels.[5] Even a large number of our professional people choose their hobbies from things they have learned in vocational classes rather than

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5 Frost, Wright Wilson, "Elimination From Jefferson County High Schools," unpublished Master's thesis, The University of Tennessee, Knoxville, 1935, p. 91.

from their Greek and Latin or from solving difficult mathematical equations.[6] If high school education is to be made more popular, it must be sold to the public. More vocational training and greater provision for individual differences with less standardization will permit great progress in this direction.

The Tennessee State Department of Education is making the way easy for such a program.[7] It is up to the administration of the high school to see to it that the curriculum is adapted to the needs of the greatest number of boys and girls. In the opinion of many educators when boys and girls, as well as their parents, are made to see that a high school education is really worth while, and when boys and girls become interested in their work in school, a long step will have been made in the direction of solving the problem of education. Not only will a better curriculum help solve the problem of education, but it will also do much to make high school graduates better fitted to meet the problems of life and make good citizens in the community.

With these thoughts as a basis the writer gave the graduate an opportunity to make suggestions in regard to items that needed improvement and also a chance to list additional subjects that might be added to the curriculum.

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6 Ibid., p. 92.
7 Loc. cit.

Table XXII presents these data and reveals the fact that eighteen individuals requested the addition of oral English. This might not necessitate the addition of a new course, but English courses might be taught so as to include emphasis on oral English. Spelling is also a subject which fourteen individuals stated should be stressed more than at present, as they felt the need for it in their present line of work. By the returns of the questionnaire it would seem that additional class room supervision should be provided there being eighteen graduates or more than one-twelfth of the total number of graduates listing this item for consideration. Seventeen individuals suggested the addition of physical education including a health program which might create a new department. Vocational and educational guidance, requested by twelve individuals, would call for the addition of an entirely different line of work. There were thirteen individuals who suggested a general shop course for boys and this could be taken care of by supplementing the industrial arts department. The home economics department could be augmented to take care of the request for a broader line of activities in this field. One item noted was the request by ten individuals for a longer lunch period in order that the pupils might be permitted to leave the school ground for their lunch or have sufficient time for lunch in the school cafeteria. In addition to the request discussed there were a number of other

TABLE XXII

ITEMS THAT NEED IMPROVEMENT AND THOSE TO BE ADDED TO THE HIGH SCHOOL CURRICULUM IN OPINION OF GRADUATES

Subject	Number of requests
Oral English	18
Additional supervision of class room instruction	18
Physical Education including a health program	17
Spelling	14
General Shop for boys	13
Vocational and Educational Guidance	12
Broader course in Home Economics	10
Longer lunch period	10
Bible	9
Geography	9
Business Arithmetic	8
Higher Mathematics	7
Music Appreciation	5
Fine Arts	5
Responsibility of homemaking	5
Economics	5
Business Administration	3

items that received consideration by some of the graduates. Consideration should be given to approximately 15 per cent of the graduates who stated that in their opinion the high school curriculum needed revision but they were not ready to say just what changes should be made.

In the light of this study it is definitely indicated that the topic of revision of the high school curriculum is deserving of further consideration and study.

CONCLUSIONS

As a result of the study of two hundred twelve graduates of Science Hill High School, Johnson City, Tennessee, covering the period of five years from 1927 to 1931 inclusive, certain general conclusions were arrived at.

1. The number of girls graduating exceeded the number of boys by 21.91 per cent over the five year period.

2. The number of girls graduating in any one year exceeded the number of boys. The minimum was 7.24 per cent in 1928 and the maximum was 26.92 per cent in 1929.

3. More than 80 per cent of the girls included in this study were employed in two occupations. Thirty-seven or 17.45 per cent were employed in homemaking, while sixty-one or 52.14 per cent were employed in professional service. Forty-nine of the sixty-one were teachers.

4. Of the boys included in this study 78.9 per cent were employed in three occupations, namely, trade, professional service, and manufacturing and mechanical industry.

5. One hundred fifty or 70.75 per cent of the total number of individuals included in this study stated they had a chance for advancement in their present line of work.

6. One hundred seventy-four or 82.05 per cent of the individuals included in this study liked their present job. "Interest in work," "chance for advancement," "service to the

public," and "prepared for the work" are the four reasons most frequently given for liking their present occupation.

7. Contrary to the belief that the first born child is handicapped in his effort to obtain an education, this study presents evidence that the third born child in families of three or more finished college less frequently than any of the other children.

8. English was the favorite high school subject listed by the greatest number, and was also listed as the most useful subject.

9. While mathematics was the subject most disliked by the greatest number of individuals it was listed second as the most useful.

10. A larger percentage of the college graduates had an initial weekly wage higher than those in any other group.

11. The present weekly wage of the college graduate indicated a larger per cent of the individuals in the higher wage levels.

12. There were more individuals in the upper grade level employed in professional services than any other occupation, with trade having the largest number of persons in the lower bracket. The upper grade level was an average in all subjects of 90 or above while the lower bracket was an average of from 70-79.

13. The questionnaire returns indicate that in the

opinion of the graduates a number of items in connection with the high school need improvement and additional courses should be offered.

RECOMMENDATIONS

The superintendent of schools, the principal, and the Board of City School Commissioners should make a thorough investigation of the existing conditions in Science Hill High School in order to know how this school compares with the best high schools of today. It is necessary that a careful study be made of the needs of the school, and the authorities should understand the educational needs of the community since these needs will determine the basis of instruction and organization of the school. They should institute and carry out research, make comparisons between this and other schools of the state, and adopt methods which will bring about needed improvements.

A relatively higher degree of flexibility and specialization of the curriculum might help the pupil find what he is best fitted for and thereby minimize waste of time and effort. The first task of the school should be to discover the abilities and personal qualities of the pupils with a view to cultivating and developing these abilities to the highest possible degree. School activities may be determined upon and presented in the light of the interests, aspirations and aptitude of the pupils.

Before the school authorities can really know the conditions existing within their schools they must have adequate records, such records, completely and accurately kept are a part of the business and educational administration of every school. Schools need more information regarding the individual than they now have. All facts should be included which will help the principal and teachers to understand each individual pupil. Records should be uniform and should be kept so carefully that comparisons can be made with other schools.

From the returns of the questionnaire the following recommendations should receive consideration in preparing the high school curricula in the future.

1. Some consideration should be given to the fact that more than one-third of the individuals included in this study disliked mathematics.

2. The English courses could be revised in order that students might receive additional work in oral English, and spelling, both of which needs were indicated by a number of graduates.

3. The need for an adequate health and physical education program is definitely indicated.

4. The woodworking shop could be re-arranged so that a general shop course could be offered which would provide a wider range of industrial arts experiences.

5. A vocational and educational guidance program should

be provided for the benefit of all high school students.

6. In the light of the large numbers of girls engaged in homemaking who have expressed a desire for more work in this field the home economics department should offer broader and more practical courses.

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APPENDIX

Name Mr. / Mrs. / Miss _____ ge_____

Father / Guardian _____ Occupation _____

Is your mother employed? _____ Occupation _____

Number of children in family _____ Number older than you _____

Underscore subjects taken: high school-Typewriting-Shorthand-Cooking-Bookkeeping-Sewing-Shopwork-Mechanical drawing-Chemistry-Physics-Home Nursing.

Present occupation _____ Employer _____

What training period was required before you could perform your present job? _____

To what extent did your high school work prepare you for your present job? Check: Much_____ Little_____ None_____.

What subject in high school did you like best? _____

What subject in high school did you like least? _____

What high school subject do you think has been of greatest value to you? _____ List jobs previously held _____

_____

What was your beginning weekly wage? _____ Present weekly wage_____ Do you like your present job?____ Why? _____

Do you have a chance for advancement? _____

Have you attended school since you completed high school? _____

If so, how long?_____ Schools attended _____

What curriculum did you take? _____ College graduate? _____

List one or more subjects you think should be added to the high school curriculum _____ What year did you graduate from high school? _____ Remarks: _____

_____

Warren W. Simmons
409 Highland Ave.
Johnson City, Tenn.

February 22, 1935

Dear Graduate of Science Hill High School:

I am making an investigation pertaining to the Johnson City High School, and need your help in making it a success.

You will find enclosed a questionnaire, involving your work at the above school, with additional questions pertaining to your work since leaving this school. I will greatly appreciate your time and attention in filling out and returning this questionnaire in the stamped addressed envelope enclosed.

The information gathered in this way, will be used for writing a thesis for the Masters Degree at the University of Tennessee. Your cooperation will be a personal favor, as well as a service to education.

I assure you that the information as regards individuals will be treated as strictly confidential, and will be used only in tabulated records. Your promptness and cooperation will be appreciated.

Yours truly,

W. W. Simmons

WWS/o