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FLORIDA SCHOOL BULLETIN

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## An Educational Survey of

 Gadsden County Florida

ISSUED BY
STATE DEPARTMENT OF PUBLIC INSTRUCTION TALLAHASSEE, FLORIDA

University of Walisconsin



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## FOREWORD

During the first part of the school year 1925-1926 an intensive study of the schools of Gadsden County was made under the direction of Mr. R. M. Evans, State Supervisor of Elementary Schools.

The results of the study are deemed worthy of publication; hence the issuance of this bulletin by the Department of Public Instruction of Florida.

Very respectfully,<br>W. S. CAWTHON,<br>State Superintendent of Public Instruction.

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## INTRODUCTION

Upon the invitation of County Superintendent, C. H. Gray, and the Board of Public Instruction for Gadsden County, Florida, a survey of the white schools of that county was carried on during the month of November and the first week in December, 1925, by the State Supervisor of Elementary Schools, assisted by the State Inspector of Rural Schools and principals, teachers and sehool officials of Gadsden County.

It was the original intention of those conducting the survey to make exhaustive inquiries into the operation of the whole system of county schools, white and colored, but it soon became evident that such a survey would require more time than was available for the work, so it was decided to confine the undertaking to the white schools of the county, and to place a major part of the emphasis of the survey upon the results of instruction in the elementary grades.

## Purposes of the Survey

An earnest desire on the part of the County Superintendent of Gadsden County to know how effectively his schools were being conducted, and what measures might be adopted to bring about improvements where needed, led him and his County Board to ask the State Department of Public Instruction to make a survey of the schools of that county, and, as above indicated, this work was carried on soon after the opening of the schools in the fall of 1925.

The following general purposes were decided upon before the survey was begun, and were as closely adhered to as possible in the actual work of the undertaking :

1. To determine how well the schools of the County are administered and supervised.
2. To tell how well the schools of the County are keeping their pupils in school.
3. To tell how well the pupils of the County are progressing through their grades.
4. To determine the preparation, experience, and general fitness for their work of the teachers of the County.
j. To find how well teachers are being paid for their work.
5. To measure both the teaching product of the schools and the ability of pupils to do school work.
6. To compare the teaching product in rural schools with that in town schools.
7. To determine how well the buildings, grounds, equipment, and surroundings are adapted to school purposes.
8. To find the cost of elementary instruction per pupil in average daily attendance, and to determine whether the schools, as now conducted, are worthy of continuation.
9. To develop a program of consolidation of schools for the entire County, and to show the advantages and costs of the same.

## Scope of the Survey

Every white school in the county, both rural and urban, was visited by one or more members of the survey staff, the buildings, grounds and equipment observed and measured, and a battery of standard tests administered to all elementary pupils above the first grade, and in a few cases to high school pupils. The examination of no school was accomplished in less than one day, and in some of the larger schools as much as three or four days was required.

The test papers were scored by members of the survey staff and by teachers and advanced high school pupils under the direct supervision of members of the survey staff. The teachers and pupils are to be commended for their careful and painstaking work in scoring papers. The members of the Quincy Teacher-Training class, accompanied members of the survey staff to other schools, and rendered valuable service by their assistance wherever they went.

The County Superintendent was untiring in his work, and the success of the undertaking is largely due to his energy and perseverance throughout the entire time the survey was being made.

The County Board of Public Instruction is to be commended for furnishing all the standard tests used in the survey.

## CHAPTER I.

## Gadsden County.

Gadsden County is located on the eastern side of the Apalachicola River, touches Decatur County, Georgia, on the north, Leon County on the east and Liberty and Leon Counties on the south. Jackson County lies to the west across the Apalachicola River.

The land in this county is high and rolling, the red clay hills that characterize southwestern Georgia extending into Gadsden and the two or three counties near it on the east. The land which has not been cleared is wooded with pine and hardwood timber, and the creek and river bottom lands are very fertile.

Of the 345,600 acres in the area of Gadsden County, 58,479 acres are in farms, and 33,608 acres are in actual cultivation, but there are 287,121 acres of wild lands that have never been cleared.

According to the State census of 1925 there were in Gadsden County 22,643 people, of whom 8,953 were white and 13,690 were colored.* Of the white population only 44 persons are of foreign birth, 76 are natives of Western States, 183 of Middle States, and 72 of Eastern States, while 2,544 are from neighboring Southern States, and 6,078 are natives of Florida. 11.1 per cent of the population of Gadsden County in 1925 lived in towns of 2,500 population or more, and 88.9 lived in villages and rural communities.

Table I. Increase in population for Gadsden County by periods since 1830:

Table I.

| Year | Population | Year | Population |
| :---: | :---: | :---: | :---: |
| 1830 | 4,895 | 1895 | 13,693 |
| 1840 | 5,992 | 1900 | 15,294 |
| 1850 | 8,784 | 1905 | 16,511 |
| 1860 | 9,396 | 1910 | 22,198 |
| 1870 | 9,802 | 1915 | 22,989 |
| 1880 | 12,169 | 1920 | 23,539 |
| 1885 | 11,209 | 1925 | 24,935 |
| 1890 | 11,894 |  |  |

The total assessed tax valuation of Gadsden County in 1925 was $\$ 4,646,417$, the total millage for county purposes being 24 , and for the State $101 / 2$.

Five railroads traverse the county, and a number of highways afford easy access to all parts of Florida and Southern Georgia. There are thirteen postoffices, five incorporated towns, and Quincy with a population of 2,771 is the county seat. The total of crop values for 1925 was $\$ 2,085,518$.

The estimated value of manufactures in 1925 was $\$ 800,000$, and large amounts of fuller's earth, clay, gravel, sand and limestone were mined.

From the data observed it will be seen that Gadsden County is one of the substantial counties of Florida, with a gradually increasing population of native American stock, devoted largely to agricultural pursuits, and in many respects typical of the population of other northern and western Florida counties.
*These figures do not include inmates of the State Hospital.


## CHAPTER II.

## The Present School Situation.

The general school law of Florida ${ }^{1}$ provides for a County Board of Public Instruction composed of three members, each elected for a term of two years, and for a County Superintendent of Public Instruction, ${ }^{\text {, elected }}$ for a term of four years, who shall serve as secretary to the County Board, and perform certain other prescribed duties of superintendence with reference to the County School System. The County Board "is constituted a body corporate," may hold title to school property, is directed to "locate and maintain schools'" wherever needed, to appoint supervisors, select sites for school houses, and is authorized to borrow money for school purposes.

The counties of Florida were originally divided into as many school districts as there were local schools, and each district had a local supervisor, appointed by the County Board, to look after the interests of the local school, but a few years ago the law was so changed as to allow districts to be formed into special tax districts for the purpose of assessing additional taxes for school purposes, and the one supervisor, appointed by the County Board, is under this new arrangement superseded by three Trustees elected by the people of the district for a period of two years. A special tax, not to exceed ten mills on the dollar, may be voted for a period of two years upon all property in a special-tax district.

The special-tax district has become very popular throughout the counties of Florida, and although the law states that the "powers of trustees ${ }^{3}$ shall not be those of control, but of supervision only," there seems to be a growing feeling of unrest in certain districts over this limit to local control, especially in some of the larger towns and cities.

Consolidation of school districts is provided for by law, and many districts are taking advantage of this law to increase the bounds of their districts, and to provide for larger and better schools.

What has been said about the machinery for the operation of the schools of Florida in general applies specifically to the schools of Gadsden County.

Table II, page 15, gives a view of the situation with reference to the school districts, special-tax and others, of the entire county. It will be noted that there are in the county seven one-teacher schools, five two-teacher schools, three three-teacher schools, one five-teacher school, one six-teacher school, two ten-teacher schools, one eleventeacher school, and one twenty-seven-teacher school. The locations of these schools, as well as of a few discontinued schools, are shown on the map of Gadsden County on page 12.

[^0]

GRETNA THREE-TEACHER SCHOOL

TABLE II.
General Characteristics of Gadsden County School Districts.

| NAME OF SCHOOL. |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Crossroads. | 1 | 1-7 | No | No | 120 |  |
| Hammock Creek. | 1 | 1-8 | No | No | 420 |  |
| Hopewell. | 1 | 1-7 | Yes | No | 140 | 6 |
| Pine ${ }^{\text {Grove }}$ | 1 | 1-8 | No | No | 120 |  |
| Flat Creek. | 1 | 1-8 | No | No | 120 |  |
| Edwards.. | 1 | 1-8 | No | No | 120 |  |
| Jamieson. | 1 | 1-8 | No | No | 160 |  |
| Sawdust. | 2 | 1-8 | No | No | 120 |  |
| Midway. | 2 | 1-8 | Yes | No | 140 | $\cdot 6$ |
| Federal Roads | 2 | 1-9 | Yes | No | 160 | 5 |
| Glory.. | 2 | 1-8 | Yes | Yes | 120 | 10 |
| Hardaway. | 2 | 1-6 | Yes | Yes | 160 | 10 |
| Sycamore. | 3 | 1-8 | Yes | No | 120 | 5 |
| Gretna. | 3 | 1-8 | Yes | No | 160 | 8 |
| Providence. | 3 | 1-8 | Yes | No | 120 | 4 |
| Mt. Pleasant | 5 | 1-9 | Yes | Yes | 160 | 10 |
| Concord. | 6 | 1-10 | Yes | Yes | 160 | 10 |
| Chattahoochee. | 10 | 1-12 | Yes | No | 160 | 10 |
| Greensboro. | 10 | 1-12 | Yes | Yes | 160 | 10 |
| Havana. | 11 | 1-12 | Yes | No | 160 | 10 |
| Quincy............. | 27 | 1-12 | Yes | No | 180 | 10 |

Reference. again to Table II will show the grades taught in each school, whether a given school is or is not in a special-tax district and whether a school is or is not a part of a consolidated district. The column next to the last indicates for each school the actual length of term in days, and the last column indicates the amount of millage voted in each special-tax district for school purposes.

It will be observed that five of the seven one-teacher schools have a length of term of only 120 days, that one has 140 days, and one 160 days. Only one one-teacher school, that at Hopewell, is in a special-tax district, and votes a millage for school purposes. Four of the two-teacher schools vote a millage for school purposes, and these four have school terms of 120 days, 140 days, 160 days and 160 days, respectively. The school at Glory has a term of only 120 days, while voting a ten-mill tax, but this seeming inconsistency can be accounted for by the fact that the millage was voted too late in the term to be available for school purposes this year. All three of the three-teacher schools vote a tax for school purposes, but only one of the three, that at Gretna, has a school term of as much as 160 days. The remaining six schools each has a maximum ten mills
special tax voted for its support. Mt. Pleasant, Concord and Greensboro are in consolidated school districts, but Chattahoochee, Havana and Quincy are not considered consolidated districts, though each of these schools receives pupils from other districts. Five of the lastnamed schools have a term of 160 days, while Quincy has 180 days for all grades, I-XII, both inclusive.

To summarize the data of Table Il we may say : there are nine schools in Gadsden County with a school term of only 120 days, two with 140 days, nine with 160 days, and one with 180 days. Fourteen of the twenty-one schools are located in special-tax districts and receive a special tax varying from four mills to ten mills on the dollar, and eight of the fourteen districts vote the maximum millage allowed by law. Only five schools are located in consolidated districts, and seven are not located in special-tax districts. One school has grades I-VI, both inclusive, two have grades I-IX, one grades I-X, and four grades I-XII.

The County Superintendent is the only person in the county designated as a supervisor of classroom instruction, and he is so busy with the administrative duties of his office that he cannot supervise the work of the schools except in a rather superficial manner. What is true of Gadsden County in this respect is also true of many of the other counties of Florida. Some counties have employed an attendance officer who does some supervising, and a few have secured a full-time supervisor, trained for the work, who devotes his or her whole time to visiting the schools and leading the inexperienced teachers to learn the technique of teaching. Such a supervisor is very much needed in Gadsden County, and the salary for such a position would be many times repaid by the better teaching that would necessarily follow the employment of such a person for the schools of the county.

## The Course of Study

The Course of Study for the Elementary Schools of Florida, prepared by a committee of twenty-seven well-known elementary teachers of the State, compiled and edited by a specialist in curriculum making, and authorized by the State Department of Public Instruction is in use in the Gadsden County schools.

The subjects of the Course of Study are divided into two classes: Major subjects and Minor subjects. In the language of the authors, "The major subjects are required while the minor may be required by local authorities where facilities for teaching them are offered."


MT. PLEASANT SCHOOL
Bonds have been voted for the erection of a modern consolidated school at Mt. Pleasant.

Major Subjects
(Required)
Reading
Language
Grammar
Arithmetic
Spelling
History
Geography
Health Education
Agriculture
Civics
Writing

Minor Subjects<br>(May be required)<br>Nature Study<br>Music<br>Drawing<br>Home Economics<br>Manual and Industrial Arts<br>Citizenship

All of the schools of Gadsden County attempt the teaching of reading, arithmetic, spelling, grammar, geography and history; but only in the larger town schools are all of the required subjects found. Due to small numbers of pupils in the sixth, seventh and eighth grades of the rural schools geography, history, physiology, civics and agriculture are given little or no attention in some schools, and the teaching of writing is very much neglected in rural and town schools alike.

In one or two of the larger town schools home economics, manual training, and drawing are taught, but music, nature study, and citizenship are almost completely ignored. The schools at Havana and Greensboro have Smith-Hughes agricultural high schools in connection with them, and expert teachers of agriculture are employed. In no school in the county is commercial work of any kind attempted. With the exception of the agricultural departments of high schools and home economics and manual training departments of other schools, the rural and town schools are alike attempting the same kind of work, viz: much oral and little silent reading; much formal arithmetic, but little that makes for actual contact with life situations; formal grammar, but little real language, and almost no leading of children to express their thoughts, impulses, and emotions in oral and written speech. The "next column" of spelling is assigned, but little effort seems to be made to teach children how to master the words they do not know. When we consider the nature of much of the teaching being done in Gadsden County we are not surprised that the boys and girls are not interested and leave school in great numbers at the very earliest opportunity.

Vitalized teaching, teaching that enters into the life experiences and activities of the boys and girls and awakens ambitions and aspirations for useful life careers is what is most needed in Gadsden County, and such teaching can not be made a reality until better prepared teachers can be secured by paying reasonable salaries for professional services.

## CHAPTER III.

## The Teachers of Gadsden County.

A good school system, be it local, urban, rural, county-wide, statewide, or nation-wide, is dependent upon a number of factors making for its success. Good buildings and equipment, a sufficient length of term, libraries and laboratories, a modern course of study, efficient administrators, all these and more are necessary, but all the other factors combined cannot make a good school system unless those who instruct our children in the classroom measure up to the best requirements of successful teachers. All who have thought about the matter will agree that the greatest educational need of our day, not in Gadsden County alone, not in Florida alone, but throughout the country as a whole, is better teachers.

This study may show that the teachers of Gadsden County are not much better and not much worse than the average teachers of the State and nation; but it is well for us to begin to examine concrete situations in order that we may plan to meet intelligently local needs as they are discovered; for, after all, it is through improvement of local conditions everywhere that state-wide and nation-wide improvement may be attained.

There are ninety-two white teachers employed in the public schools of Gadsden County-eleven men and eighty-one women. It will be seen from an inspection of Table III, page 20 that (a) there are more teachers 18 years old than of any other one age; (b) the median age for men is 28 years, and for women and men is 23 years; and (c) there are only sixteen teachers more than 30 years oldthirteen women and three men. The average age for men is 30.6 years, for women 24.4 years, and for both 25.2 years. Looked at from a percentage standpoint, $14 \%$ of all white teachers of Gadsden County are only 18 years old, $64 \%$ are not yet 25 , and only $36 \%$ are 25 or more, while only $17 \%$ are more than 30 years old. The average age for the State as a whole for 1924-1925, according to the State Superintendent's Biennial Report, was $3 \overline{5}$ for men and 26 for women, whereas Gadsden County's average is 30.6 for men and 24.2 for women.

Advance of years does not necessarily make good teachers, and in some cases beginners do better work than those who have had long years of experience, but there is no doubt in the mind of those who think about the matter that Gadsden County has far too many young and inexperienced teachers.

TABLE III.
AGES OF GADSDEN COUNTY TEACHERS.

| Age- | Men | Women | Both |
| :---: | :---: | :---: | :---: |
| 17 |  |  |  |
|  | $\cdots$ | 13 | 13 |
| 19 |  | 4 | 4 |
| 20 | . | 9 | 9 |
| 21 |  | 7 | 7 |
| 22 |  | 9 | 9 |
| 23 | $\because$ | 7 | 9 |
| 24 | 1 | 7 | 8 |
| 25 |  | 2 | $\stackrel{1}{2}$ |
| 26 |  | 3 | 3 |
| 27 | 1 | 3 | 4 |
| 28 | $\because$ | 1 | 3 |
| 29 |  | $\because$ | $\because$ |
| 30 | 2 | 1 | 3 |
| 31 | . . | 1 | 1 |
| 32 | . | 2 | $\cdots$ |
| 33 | . | 2 | 2 |
| 34 | . | $\because$ | 2 |
| 35 | $\cdots$ | 1 | 1 |
| 36 ... | . | . | . |
| 37 |  |  |  |
| 38 | 1 | 1 | 2 |
| 39 ................................. | 1 | 1 | $\because$ |
| 40 ................................... . | . |  |  |
| 41 | $\cdots$ | 1 | 1 |
| 42 | . | . | . |
| 43 | . | . | . |
| 44 | $\ldots$ | . | $\cdots$ |
| 45 |  | . |  |
|  | 1 | $\cdots$ | 1 |
| 47 ................................. | . . | 1 |  |
| 48 | . | 1 | 1 |
| 49 | . | . | . |
| 50 51 | . | $\cdots$ | i |
| 51 | . | 1 | 1 |
| 52 ................................ | $\because$ | . | . |
| Totals . . . . . . . . . . . . . . . . . . . . | 11 | 81 | 92 |
| Med. Age . ....................... | 28 | 22 | 23 |
| Av. Age . . . . . . . . . . . . . . . . . . . . . | 30.6 | 24.4 | 252 |

Closely allied to the question of age of teachers is that of scholastic attainments, or, preparation for their work. Reference to Table IV, page 23 , will show that (a) of the seven teachers of one-teacher schools, only one has had as much as one year in college, (b) three have had four years each in high school, (c) two have completed the tenth grade only, (d) and that one has gone no higher than the eigthth grade. The record for two-teacher schools is not much better, but we find two teachers who have had some training above the high school. One teacher in a three-teacher school is a college graduate, but it is not until we come to the Chattahoochee, Greensboro, Havana and Quincy schools that we find any more graduates of four-year colleges. Reduced to a percentage basis, we find $17 \%$ of the white teachers of the County are holders of the bachelor's degree, $3 \%$ have spent three years in college or normal school, $30 \%$ have received two years training above high school, 6\% have had one year in college or normal school, $28 \%$ have had no training above the high school, and $16 \%$ have not yet finished high school. Of the teachers of strictly rural schools less than $1 \%$ are college graduates, and only $6 \%$ have had as much as two years in college or normal school.

When we compare the preparation of Gadsden County elementary teachers with the widely accepted standard of graduation from high school plus graduation from a standard two-year normal school we find only six out of thirty-four teachers outside the strictly urban communities and only twenty-three out of fifty-eight in urban communities, who can meet the requirement.

A glance at Table $V$ shows that $24 \%$ of all the County's white teachers are teaching for the first time, and that $18 \%$ have had only one year's experience, whereas only $10 \%$ have had ten years or more of teaching experience. $60 \%$ of the teachers of one-teacher schools, $22 \%$ of those in two-teacher schools, and $50 \%$ in three-teacher schools are without experience, and in a six-teacher school $50 \%$ of the teachers have not taught before. In the town schools the situation is somewhat better, but even here $17 \%$ of all teachers are without experience. Although not shown in Table V, the answers to questionnaires filled out by the teachers of the County brought out the fact that sixty-four teachers, or $70 \%$ of all, are serving in their present positions for the first time. The turnover of teachers in the country schools is practically $100 \%$ per annum, and in the towns approximately $50 \%$.

Table VI, page 25 , is self-explanatory, but it may be well to call attention to the large number of teachers holding the Graduate State Certificate. The granting of this certificate is conditioned upon professional training. Also, a rather large number of teachers hold the Florida First Grade Certificate, and this is commendable. The large number of Temporary Certificates shown is probably reduced by this time (June, 1926), inasmuch as the survey was made during the month of November, 1925, and teachers have had time to attend to the matter of certification.

It will be observed from Table VII, page 26, that the annual salaries of teachers range from less than $\$ 400$ to more than $\$ 2,000$, the latter being paid to principals of the larger town schools. The
one, two and three-teacher salaries are, of course, the lowest, and it is not surprising that for a salary of only about $\$ 1.00$ a day for the year around it is difficult to secure or retain teachers of any qualifications whatever.

## Outstanding Conditions.

A few outstanding conditions with reference to the teacher situation in Gadsden County are apparent as a result of this study.

1. There are a number of well-prepared and highly-efficient teachers working in the county.
2. There are entirely too many young and inexperienced teachers.
3. There is an appalling annual turnover of teachers, especially in the country schools.
4. Salaries are very low in the country districts.
5. The preparation of a large percentage of the teachers is far below generally accepted standards.
6. The children in the country schools deserve better opportunities for an education than are now being afforded them, and in order to give them better educational advantages, consolidation of the smaller schools to form larger and better ones should be effected at the earliest moment possible.


HARDAWAY TWO-TEACHER SCHOOL
TABLE IV.

| TYPE OF SCHOOL. |  |  |  |  |  |  |  |  |  | Number Holding Degrees. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  | B. S. | B.Ph. | A. B. | M. A. |
| One-Teacher | 0 | 0 | 0 | 1 | 3 | 0 | 2 | 0 | 1 | 0 | 0 | 0 |  |
| Two-Teacher | 0 | 0 | 1 | 1 | 3 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Three-Teacher | 1 | 0 | 1 | 2 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Mt. Pleasant | 0 | 0 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Concord | 0 | 0 | 1 | 0 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Chattahoochee | 2 | 0 | 2 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 0 |
| Greensboro | 1 | 0 | 2 | 0 | 6 | 0 | 2 | 0 | 0 | 1 | 0 | 1 | 0 |
| Havana | 2 | 0 | 6 | 0 | 3 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Quincy ............ | 8 | 3 | 11 | 1 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 7 | 0 |
| Totals ...... $\ldots$....\| | 14 | 3 | 27 | 6 | 26 |  | 6 | 4 |  | 5 | 0 | 10 | 0 |
| Percentages | 17\% | 3+\% | 30\% | 6+\% | 28\% | 4+\%\| | 6+\% | 4+\% | 1+\% |  |  |  |  |

TABLE V
EXPERIENCE IN TEACHING OF GADSDEN COUNTY TEACHERS.

| TYPE OF SCHOOL. |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| One-Teacher | 4 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 7 |
| Two-Teacher | 2 | 1 | 1 | 3 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 9 |
| Three-Teacher | 4 | 2 | 0 | 1 | 0 | 0 | 11 | 0 | 0 | 1 | 0 | 8 |
| Mt. Pleasant | 0 | 0 | 0 | 1 | 1 | 2 | $1)$ | 0 | 0 | 0 | 0 | 4 |
| Concord | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 6 |
| Chattahoochee | 1 | 2 | 2 | 0 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 9 |
| Greensboro | 1 | 2 | 3 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 11 |
| Havana | 2 | 2 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 2 | 2 | 11 |
| Quincy . . . . . . . . . . . . . . | 5 | 6 | 1 | 3 | 2 | 2 | 0 | 1 | 1 | 0 | 6 | 27 |
| Totals | 22 | 16 | 9 | 11 | 5 | 8 | 6 | 2 | 1 | 3 | 9 | 92 |
| Percentages | 24\% | $18 \%$ | $10 \%$ | 12\% | 5\% | 9\% | 6\% | 2\% | 1\% | 3\% | 10\% |  |

TABLE VI.
FLORIDA CERTIFICATES HELD BY GADSDEN COUNTY TEACHERS.

TABLE VII.

| SALARIES OF GADSDEN COUNTY TEACHERS. |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of School | $\begin{aligned} & \$ 250 \\ & \$ 399 \end{aligned}$ | $\begin{aligned} & \$ 400 \\ & \$ 549 \end{aligned}$ | $k 550$ <br> $\$ 699$ | $\begin{gathered} \$ 700 \\ \$ 849 \end{gathered}$ | $\$ 850$ | $\begin{gathered} \$ 1,000 \\ \$ 1,249 \end{gathered}$ | $\$ 1,250$ <br> $\$ 1,499$ | \$1,500 | \$1,750 | \$2,000 |  |
|  |  |  |  |  |  |  |  | \| \$1,749 | \| $\$ 1,999$ |  |  |
| Une-Teacher | 4 | 3 | , |  | . . | . . | .. | . . | .. | . | 7 |
| Two-Teacher | 1 | 4 | 3 | 1 | $\cdots$ | $\ldots$ | . | . | . | . | 9 |
| Three-Teacher | 3 | 2 | 2 | - | 1 | 1 | $\cdots$ | . | . |  | ${ }^{8}$ |
| Four-Six-Teacher | 1 | 3 | 2 | 2 | $\cdots$ | 1 | 1 | $\cdots$ | $\ldots$ |  | 10 |
| Other Schools . . | . | 9 | 12 | 14 | 8 | 6 | 2 | 3 | . | 3 | 57 |
| Totals . . . . . | 9 | 21 | 19 | 17 | 9 | 7 | 3 | 3 | $\cdots$ | 3 | . |

## CHAPTER IV.

The Pupils in the Schools.

## Enrollment

The efficiency of any school system is dependent in a large measure upon (a) how well the children are being held in the schools, and (b) upon how rapidly and how regularly they are advancing through their grades. Examination of the enrollment of pupils in any school system will reveal the fact that the lower classes are always larger than the higher ones, and that there is in almost every case a gradual decrease in numbers, grade by grade, from the lowest to the highest.

The general tendency, just described and which is prevalent in school systems almost universally, was found to exist to a marked degree in the schools of Gadsden County. An examination of Table VIII, page 28, will show the enrollments, grade by grade, of certain schools and groups of schools, and also the percentage each grade enrollment is of the total enrollment of that school or group of schools. A careful study of this table will reveal certain outstanding facts, among which the following are perhaps most worthy of attention:

1. In every case but one the enrollment in the first grade is higher than in any other grade, and in every case but three the corollment in the highest grade is less than that of any other grade.
2. In the group of one-teacher schools we find only four pupils, or $5.4 \%$ of all the pupils in those four schools, enrolled in the eighth grade, and the seventh and eighth grades combined have enrolled only eleven pupils, or $14.9 \%$.
3. In the two-teacher group there are only fifteen eighth grade pupils, or $5.8 \%$. In grades seven and eight there are only thirty-seven pupils, or $14 \%$, whereas there should be not less than forty-five or fifty pupils in these grades. (The three pupils of this group enrolled in the ninth grade, have later, we are glad to say, been enrolled in high schools of the county.)
4. In the three-teacher group there are twenty-one pupils, or $10.1 \%$ in the eighth grade. This showing is much better than that made by the one-teacher and two-teacher groups, and perhaps may indicate that the three-teacher schools have greater power for holding pupils than is possessed by the one and two-teacher groups. However, these three schools, with a combined enrollment of 206 pupils, should have more than twenty-one in the eighth grade.
enrollment by grades and pfrcentage of each to total enrollment.

5. The Mount Pleasant and Concord schools are doing some high school work, the former having just recently begun organization on the 6-3 plan, and the latter having maintained ninth and tenth grades for a number of years. In both of these schools it will be seen that there is a very small enrollment in seventh and eighth grades, and the small classes in high school grades makes the maintenance of the high school departments a very expensive proposition when looked at from the standpoint of per capita cost. The drawing and holding powers for high school pupils in the Mt. Pleasant school are as yet untried, and time alone can show whether the maintenance of a high school at this place can be justified from the standpoint of cost per pupil. Unless the community in and around Concord shall within the next year or two have a substantial increase in pupils of upper grade school ages, the maintenance of high school grades at this place will be too expensive to be continued.
6. Greensboro, Havana, Quincy and Chattahoochee each maintains a four-year high school. It will be noted that in these schools the number of pupils enrolled in the eighth grade is comparatively large, and inasmuch as Table VIII does not show the percentages of eighth grade pupils as compared with the enrollments in Grades 1-8, only, the following supplementary table is given :

Percent Eighth Grade
Enrollment is of the
School. Enrollment Eighth Grade. Enrollment Grades 1-8.

| Greensboro | 21 | 8.7 |
| :---: | :---: | :---: |
| Havana | 20 | 9.6 |
| Quincy | 50 | 9.8 |
| Chattahoochee | 17 | 7.0 |

These larger schools are thus seen to have a greater holding power for eighth grade pupils than is possessed by the smaller schools of the county, but in the matter of holding high school pupils reference to Table VIII, page 28, shows a condition far from satisfactory, the percentages of total enrollments found in the twelfth grades being $2.3 \%$ for Greensboro, $3.1 \%$ for Havana, $4.6 \%$ for Quincy and $1.4 \%$ for Chattahoochee.

Near the bottom of Table VIII is a summary by grades and percentages of all the white schools in Gadsden County, and below this are the enrollments and percentages, by grades, for the elementary and secondary schools of the entire State for the school year ending June 30, 1924.

A comparison of these two summaries is favorable to the schools of Gadsden County, but it must be remembered that the figures for the State as a whole include all schools, white and colored, while those for Gadsden County are for white schools only.

## Age-Grade Distribution

We now come to that part of this study which answers the question as to how rapidly pupils are advancing through the grades of the white schools of the county. It may be assumed that the average child of the county enters school at the age of six years, and with regular attendance upon school for not less than eight months per year, a good teacher, all necessary books and other equipment provided, and proper application to his school duties he will enter the succeeding grades according to the following schedule:

| Grade. | Age. |  | Grade. | Age. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 7 | years | 8 | 13 |  |
| 3 | 8 | $،$ | 9 | years |  |
| 4 | 9 | $،$ | 10 | 14 |  |
| 4 | 10 | $،$ | 11 | 16 |  |
| 5 | 11 | $،$ | 12 | 17 |  |
| 6 | 12 | $،$ |  |  |  |
| 7 |  |  |  |  |  |

As a matter of fact, however, the average pupil of Gadsden county falls far short of our expectations with reference to his advancement through the grades. Reference to Table IX, page 32, which is an age-grade distribution for the white schools of the entire county, brings out unmistakably certain facts with reference to the groups and schools represented.

It will be noted that enrollments by grades 1-12 are given, and that the ages of pupils are shown in the column at the extreme left. For the benefit of those not accustomed to reading tables of this kind, the following illustrations are given: "There are 25 pupils only five years old enrolled in the first grade"; "There are two pupils 14 years old in the second grade"; "There are seven pupils 16 years old in the twelfth grade," etc.

Inasmuch as for various reasons strict adherence to advancement, year by year, according to the schedule shown in another part of this study is not fair to certain pupils, Table IX, allows a range of two years for each grade, as for instance first grade includes pupils six to seven years old, grade two those seven to eight, etc. Heavy lines are drawn to enclose pupils who fall within the proper ages by grades, and these are said to be of normal age, while those falling above these heavy lines are said to be "under age" and those below are "over age" pupils. Total enrollments by years are shown in the column at the extreme right, while totals by grades follow the word "Totals'" just below the column of ages. It will be noted that the sums of these two totals are equal, and that the total number of pupils under consideration is 2,246 .

In the lower part of the table are totaled, by grades, the numbers of pupils "under age,' of "normal age," and "over age," and just below these are the percentages these members are of the total enrollments of the respective grades. At the extreme right are found totals of the "under age," "normal age" and "over age" pupils, and the percentages these are of the whole county enrollment.

The following are some of the outstanding conditions shown to exist in the schools of Gadsden County as revealed by this table :

1. There are 25 children in the first grade who are too young to be in school.
2. There is an astonishing range of ages for pupils in the same grades, the range in Grade 4 being from seven years to seventeen years, and in Grade 5 from eight years to eighteen years.
3. Only $52.1 \%$ of all are of normal age.
4. The great amount of over-ageness is alarming in the extreme.
5. The increase in per cent of over-ageness from the first grade, 21.9 , to the fifth, 50.5 , and its sudden drop at that point probably signifies that a great number of pupils have by the time they have reached this grade become discouraged and dropped out, leaving only the younger and brighter children in school.

Table IX is not of such a nature as to stir our pride in the schools of the county, but when we glance at Table $X$, page 33 , in which
TABLE IX.

| AGE. |  |  |  |  |  |  | 茄 |  | 苞 |  | ¢ <br> ¢ <br> ¢ | - | $\xrightarrow{\text { nity }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | 25 |  |  |  |  |  |  |  |  |  |  |  | 25 |
| 6 | 156 | 9 |  |  |  |  |  |  |  |  |  |  | 165 |
| 7 | 76 | 74 | 32 | 1 |  | ..... |  |  |  |  |  |  | 18:3 |
| 8 | 37 | 75 | 61 | 29 | 4 | 1 |  |  |  |  |  |  | 207 |
| 9 | 22 | 42 | 85 | $5{ }^{5}$ | 18 | 4 |  |  |  |  |  |  | 229 |
| 10 | 8 | 27 | 60 | 35 | 60 | 31 |  |  |  |  |  |  | 221 |
| 11 | + | 6 | 21 | 48 | 35 | 52 | 24 | 1 |  |  |  |  | 191 |
| 12 | 1 | 5 | 13 | 28 | 50 | 43 | 60 | 12 | 4 |  |  |  | 216 |
| 13 |  | 3 | 12 | 21 | 37 | 35 | 5 | 39 | 12 | 1 |  |  | 210 |
| 14 |  | $\because$ | 9 | 10 | 15 | 14 | 40 | 37 | 27 | 10 | 4 |  | 168 |
| 15 |  |  | 2 | $\pm$ | 9 | 16 | 33 | 38 | 21 | 26 | 10 | 3 | 162 |
| 16 |  |  |  | 1 | 5 | 5 | 13 | 22 | 18 | 27 | 26 | 7 | 124 |
| 17 |  |  |  | 2 | 1 | 1 | 6 | 15 | 6 | 12 | 21 | 17 | 81 |
| 18 |  |  |  |  | 2 | 2 | 2 | 8 | 2 | 6 | 11 | 10 | 43 |
| 19 |  |  |  |  |  |  | 1 |  | 3 | 2 | 4 |  | 17 |
| 20 |  |  |  |  |  |  |  |  | 1 |  |  | 2 | 3 |
| 21 |  |  |  |  |  |  | ... |  |  |  |  | 1 | 1 |
| Totals | *329 | 243 | 295 | 237 | 23 i | 204 | 229 | 12 | 94 | 84 | 76 | 4 | $\underline{22+6}$ |
| Under age. | 25 | 9 | 32 | 30 | 22 | 36 | 24 | 13 | 16 | 11 | 14 | 10 | 242 |
| Normal age.. | 232 | 149 | 146 | 93 | 95 | 95 | 110 | ${ }^{76}$ | 48 | 53 | 47 | 27 | 1171 |
| Over age.... | 72 | 85 | 117 | 114 | 119 | 73 | 95 | 83 | 30 | 20 | 15 | 9 | 833 |
| \% Under age. . | 76 | 40 | 10.9 | 127 | 93 | 17.6 | 105 | 76 | 170 | 131 | 184 | 213 | 108 |
| \% Nor. age.. | 705 | 61.3 | 50.0 | 39.2 | 402 | 466 | 480 | 383 | 51.1 | 631 | 619 | 513 | 521 |
| \% Over age... | 219 | 347 | 391 | 481 | 505 | 358 | 415 | 54.1 | 319 | 238 | 197 | 274 | 37.1 |

[^1]AGE. GRADE DISTRIBYTION-GADSDEN COINTY WHITE SCHOOLS.

TABLE $X$.
A Comparison of Gadsden County, Florida, Age Distributions With Virginia Standards and National Standards.

| Status of Pupils |  |  |  |  |  | 宫 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gadsden County | \% Under Age | 17.6 | 5.4 | 2.4 | 8.2 | 10.8 |
|  | \% Normal Age | 43.2 | 43.8 | 51.9 | 47.4 | 52.1 |
|  | \% Over Age | 39.2 | 50.8 | 45.7 | 44.4 | 37.1 |
| Virginia Standards | \% Under Age | 17.8 | 15.9 | 17.5 | 21.5 | 19.1 |
|  | \% Normal Age | 40.7 | 41.0 | 46.3 | 48.6 | 44.9 |
|  | \% Over Age | 41.5 | 43.2 | 36.2 | 29.9 | 36.0 |
| National Standards | \% Under Age | 3.4 | 3.0 | 3.4 | 5.4 | 4.3 |
|  | \% Normal Age .. | 35.3 | 33.5 | 38.8 | 46.6 | 40.4 |
|  | \% Over Age ..... | 61.3 | 63.5 | 57.8 | 48.0 | 55.3 |

the record for under-age, normal-age, and over-age percentages of that county are compared with the Virginia Standards and National Standards, we "breathe a little easier," and are convinced of the truth of the old saying that "misery loves company." Judged by Virginia Standards and National Standards, Gadsden County makes a very good showing, as for instance, it will be observed that in the matter of normal-age pupils the county has a larger percentage in each of the groups, but one, than is shown by the Virginia or National Standards, and with reference to the number of over-age pupils the Gadsden County record is better than the National Standard, but not so good as that of Virginia. It must be remembered, however, that these Virginia and National "standards" are not standards of excellence, but indicate how poor our schools are when an average is taken of all. It must also be remembered that the Gadsden County record is for white children only, while those of Virginia and the country as a whole include both white and negro pupils.

Table IX shows us that the schools of the county, as compared with what they should be, are in a deplorably backward condition, and it is urgently necessary that school officials and other public-spirited citizens "take stock" of the entire school situation and take such steps as are necessary to guarantee to every boy and girl the best of educational advantages.

## Steps Necessary to be Taken

1. Set eight months as the minimum school term.
2. Consolidate at the earkiest moment possible, Sawdust, Providence, Edwards, Pine Grove and Sycamore schools with Greensboro; Flat Creek with Greensboro or Chattahoochee; Cross

Roads with Quincy; Gretna with Mt. Pleasant or Quincy; Hammock Creek with Federal Roads; Hinson and Jamieson with Havana; and Glory, Old Mt. Pleasant and Hardaway with Mt. Pleasant; and make some provision for transporting the pupils at Hopewell to a good graded school.
3. Set higher standards for teachers and pay sufficient salaries to keep good teachers in the same positions from year to year.
4. Employ a full-time county supervisor who can take the data resulting from the "survey" and plan and execute a follow-up program.

## A Mental Age-Grade Distribution

Table IX was made by taking into account the chronological ages of the elementary pupils of Gadsden County, but it is possible to make a mental age-grade table for the same pupils provided we know their mental ages. By means of group intelligence tests the mental ages of 1,304 pupils of the county schools, grades $2-8$, were obtained, and Table XI, page 35 , was constructed.

Reference to Table XI will show that there is in this distribution a very wide range of abilities represented in the various classes. In the third grade, for instance, we find five pupils with mental ages as low as four years, and one pupil with a mental age of thirteen years. In the seventh grade we find mental ages ranging from eight years to eighteen years, or a difference of ten years between the lowest and the highest. In this table it must be remembered that the mentally over-age pupils are being retarded in their grades, and that the mentally under-age pupils have been unduly accelerated.

It will be noted that this Table, like Table IX, gives the numbers of under-age, normal-age and over-age pupils by grades, and that these numbers have been reduced to percentages of the total numbers of pupils by grades.

A great majority of pupils who were given the intelligence tests had never been given such tests before, and this writer believes that not only do pupils frequently raise their mental ages, and consequently their intelligence quotients (I. Q.'s) by repeated taking of such tests in various forms, but he is convinced by several years of experience with mental tests that intelligence tests measure native mental ability plus training in school subjects and experiences usually common to childhood. This being the case, we should not insist upon a too literal interpretation of the results shown by Table XI, though we must admit that the results here shown are in accord with the judgment of teachers in the cases of hundreds of children.

## Attendance

The regular attendance of pupils upon the daily sessions of the schools is essential if proper advancement through the grades is to be made. The teachers may be the best trained that money can provide, the buildings and equipment may be the very essence of perfection, but if the child is absent from school for a considerable part of the school term or attends irregularly, he will never secure a common school education.
TABLE XI.

| MENTAL AGES. | II | III | IV | $V$ | VI | VII | VIII | Totals. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $5 \ldots \ldots \ldots .$. | 29 | 4 |  |  |  |  |  | 33 |
| $6 \ldots . . . . . . .$. | 104 | 78 | 12 |  |  |  |  | 194 |
| 7 | 41 | 85 | 44 | 1 S | 5 |  |  | 193 |
| 8 | 4 | 54 | 73 | 44 | 14 | 3 | 1 | 193 |
| 9 | 4 | 17 | 38 | 50 | 25 | 16 | 4 | 154 |
| 10 |  | 8 | 26 | 47 | 5 | 25 | 4 | 115 |
| 11 |  | 1 | 6 |  | 39 | 46 | 23 | 136 |
| $12 \ldots . . . . . .$. |  | 0 | 2 | 11 | 25 | 39 | 33 | 110 |
| $13 \ldots \ldots \ldots$. |  | 1 | 0 | 5 | 20 |  | 24 | 79 |
| 14 |  |  |  |  | 10 | 13 | 16 | 39 |
| 15 |  |  |  |  | 5 | 11 | 18 | 34 |
| 16 |  |  |  |  |  | 0 | 9 | 9 |
| 17 |  |  |  |  |  | 4 | 6 | 10 |
| 18 |  |  |  |  |  | 1 | 4 | 5 |
| 19 |  |  |  |  |  |  |  |  |
| 20 |  |  |  |  |  |  |  |  |
| Totals | 182 | 248 | 201 | 196 | 148 | 187 | 142 | 1304 |
| Under age....... | 133 | 167 | 129 | 112 | 49 | 90 | 65 |  |
| Normal age...... | 45 | 71 | 64 | 68 | 64 | 68 | 40 | . . . . |
| Over age........ | 4 | 10 | 8 | 16 | 35 | 29 | 37 |  |
| \% Under age.... | 731 | 673 | 642 | 57.1 | 331 | 48.1 |  |  |
| \% Normal age... | 24.1 | 286 28 | 318 4 | 347 | 432 | 36.4 | 281 | . |
| \% Over age..... | 41 | 28 | 40 | 82 | 237 | 155 | 26.1 |  |



GADSDEN COUNTY HIGH SCHOOL, QUINCY

Table XII, page 38, shows the number of pupils present and the number absent, grade by grade, and school by school, on the days the tests were given in the county survey, and the column to the extreme right gives percentages of absence for grades $2-8$ for that particular day. Inasmuch as this table represents one or more day's attendance during the early fall it gives us an excellent crosssectional view of the attendance in the schools of the entire county for that time of the year. It will be observed that four schools had no absences, but, as stated in the footnote, this may be for the reason that absentees were not counted in making up the enrollment sheets in those schools.

It will be noted that schools having a small enrollment, as a rule, have the largest number of absentees, though the schools at Greensboro and Havana have $18 \%$ and $15 \%$, respectively. Quincy, with the largest enrollment of any school in the county, had only $3 \%$ of absence at the time of the survey.

It will be remembered that the survey was made in the month of November, and attendance is usually better at that time than in the spring when children of rural sections are often kept out of school to assist with work on the farms. This being the case, we must conclude from the showing made by Table XII that attendance upon the schools of the county is far below what ought to be expected. This' phase of the situation no doubt has much to do with the overageness, discussed elsewhere, found to be so prevalent in Gadsden County schools. Attendance should be more stressed than it seems to be at the present time, and the attendance laws should be rigorously enforced.
TABLE XII.
ATTENDANCE ON DAY OF TESTING.


## CHAPTER V. <br> Resulits of Instruction Measured.

## General Statement

"The influences of a good school in a community are many. Most people, however, measure the influence of the school and its value to the community by the more manifest and least intangible standards of measurement. If the school moves on smoothly, if the children like the teachers, and if their interest in community welfare is apparent, the school is pronounced first-class; and no effort is made to ascertain if the children are being trained as they should, or if the things they are learning are the things they should know'.' But if Starch's ${ }^{2}$ definition that "education is the production of useful changes in human beings'' is to be accepted as a true statement, and theses 1 and 2 of McCall that: (1) "Whatever exists at all, exists in some amount'", and (2) 'anything that exists in amount can be measured" are worthy of consideration, we are forced to the conclusion that some definite objective measurements of the results of instruction are necessary.

Within the last ten or fifteen years definite quantitative standards known as "standard tests" have been devised for the purpose of comparing the results obtained in one school or school system with those in another, or with the mean or median scores, as the case may be, of thousands of children throughout the country. If thousands of fifth grade children, for instance, are given a well selected list of questions in arithmetic, and make an average score on that test we assume that such average score is the mark that average fifth grade children make, and we call this average score the "standard" or "norm" for that particular test.

Fairly reliable group tests have been perfected in all the fundamental elementary school subjects, so in selecting a battery of tests a wise choice of materials will have much to do with the accuracy of final results.

## The Tests Used ${ }^{4}$

Table XIII, page 40, gives in concrete form the names of the tests given in the educational survey of Gadsden County, the grades in which each test was given, and the number of pupils in one-teacher, two-teacher, three-teacher, etc., schools taking the tests. It will be noted that 8275 separate tests were used, the number of tests given to each child depending upon his grade; the lower grades having the fewest number, and an increasing number being given to the higher grades.

## The Pupils Tested

Table XIV, page 41, gives the numbers of pupils tested in the various classes of schools and in the various grades of those schools. It will be noted that a total of 1,741 pupils were tested.

[^2]TABLE XIII．
white pupils tested in various subjects in the gadsden county survey．

| SUBJECT | NAME OF TEST USED． |  | Number of Pupils Tested in |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | $\begin{aligned} & \text { 荡 } \\ & \text { W. } \\ & \text { © } \\ & \text { H. } \end{aligned}$ |  | （ |  | 斵 | 感 | \％ |
| Reading | Thorndike－McCall Reading Scale， Form I | 3－12 | 62 | 126 | 105 | 85 | 78 | 154 | 180 | 189 | 490 | 1，469 |
| Spelling． | Twenty－three words from Buck－ ingham＇s Extension Ayres＇ Spelling Scale | 3－8 | 62 | 126 | 105 | 85 | 66 | 158 | 147 | 149 | 368 | 1，264 |
| Arithmetic． | Woody－McCall Mixed Funda－ mentals | 3－8 | 62 | 126 | 105 | 85 | 54 | 156 | 147 | 149 | 368 | 1，252 |
| Writing ．． Language | Stone＇s Reasoning Test．．． | 5－8 | 37 | 72 | 58 | 63 | 46 | 88 | 90 | 95 | 237 | 786 |
|  | Ayres＇Scale in Hardwriting | 4－8 | 49 | 101 | 81 | 72 | 43 | 120 | 113 | 125 | 297 | 1.001 |
|  | Trabue＇s Language Scale， Form C | 4－8 | 49 | 101 | 81 | 72 | 43 | 120 | 113 | 125 | 297 | 1，001 |
| General Ability | Illinois General Intelligence Scale，Form I | 4－8 | 49 | 101 | 81 | 72 | 55 | 120 | 113 | 125 | 297 | 1，013 |
|  | Haggerty＇s Intelligence Scale，Sigma 1 | 2－3 | 37 | 45 | 32 | 31 | 38 | 76 | 58 | 36 | 136 | 489 |
|  | Total number tests used |  | 407 | 798 | 648 | 565 | 423 | 990 | 961 | 993 | 2，490 | 8，275 |

TABLE XIV.
White Pupils Tested in Gadsden

|  | II | III | IV | v | VI | VII | VIII | IX | X | XI | XII | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| One-Teacher Schools. | 14 | 23 | 12 | 13 | 12 | 7 | 5 |  |  |  |  | 86 |  |
| 5 Two-Teacher Schools. | 20 | 25 | 29 | 27 | 13 | 16 | 13 | 3 |  |  |  | 146 |  |
| 3 Three-Teacher Schools | 8 | 24 | 23 | 14 | 20 | 13 | 11 |  |  |  |  | 113 |  |
| Mt. Pleasant. | 14 | 17 | 9 | 15 | 16 | 10 | 8 | 14 |  |  |  | 103 | 4 Teachers |
| Concord | 15 | 23 | 9 | 6 | 12 | 8 | 8 | 4 | 8 |  |  | 93 | 6 Teachers |
| Chattahoochee | 40 | 36 | 32 | 22 | 18 | 32 | 16 | 12 | 10 | 8 | 4 | 230 | 10 Teachers |
| Greensboro | 24 | 34 | 23 | 28 | 17 | 25 | 20 | 22 | 11 |  |  | 204 | 10 Teachers |
| Havana | 12 | 24 | 30 | 32 | 21 | 17 | 25 | 19 | 10 | 13 | 8 | 211 | 11 Teachers |
| Quincy ... | 65 | 71 | 60 | 53 | 66 | 69 | 49 | 22 | 43 | 40 | 17 | 555 | 27 Teachers |
| Totals | 212 | 277 | 227 | 210 | 195 | 197 | 155 | 96 | 82 | 61 | 29 | 1,741 |  |



GREENSBORO SMITH-HUGHES AGRICULTURAL SCHOOL
Location for proposed consolidation of Greensboro, Edwards, Providence, Sycamore, Sawdust, Flat Creek and Pine Grove Schools.

## TABLE XV.

Median T-scores in Reading for Gadsden County Schools. Thorn-dike-McCall Reading Scale, Form 1.

| GRADES |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | III | IV | v | VI | VII | VIII | IX | X | XI | XII |
|  |  |  |  |  |  |  |  |  |  |  |
| Schools ... | 29 | 36.5 | 37.5 | 44 | 45 | 47 |  |  |  |  |
| 5 Two-Teacher |  |  |  |  |  |  |  |  |  |  |
| Schools .... | 32 | 34.5 | 37 | 47 | 47 | 49 | 47 |  |  |  |
| 3 Three-Teacher |  | 34 | 38 | 43 |  | 53 |  |  |  |  |
| Sthools | 31 | 34 |  | 43 |  |  |  |  |  |  |
| Concord | 29 | 37 | 42 | 47 | 43 | 52 | 48 | 57 |  |  |
| Chattahoochee | 32 | 35 | 40 | 41 | 45 | 49 | 55 | 57 | 57 | 69 |
| Greensboro | 27.5 | 33 | 37.5 | 40 | 50 | 49 | 59 | 65 |  |  |
| Havana | 29 | 33.5 | 37 | 40 | 51 | 49 | 57 | 58 | 57 | 63 |
|  | 27.5 | 37 | 44 | 43 | 45 | 55 | 57 | 61 | 61 | 65 |
| Quincy ${ }^{\text {Hr. }}{ }^{1}$ | 36 | 37 | 38 | 45 | 53 | 56 |  |  |  |  |
| Thorndike-McCall standard scored for November ${ }^{2}$ | 31.6 | 38.0 | 43.2 | 49.4 | 54.7 | 58.9 |  | 62.4 | 63.8 | 65.7 |
| Gadsden County | 30 | 36 | 40 | 43 | 47 | 51 | 57 | 63 | 61 | 65 |

${ }^{1}$ Quincy has mid-year promotions.
${ }^{2}$ Norms for November calculated from June norms.

## Reading

In many respects reading is the most important of all school subjects. Thought-getting from the printed page lies at the very foundation of all later learning, and of all pleasure and profit to be derived from literary pursuits. In the words of Haggerty': "No single occupation rests so heavily upon the public schools as that of teaching the young people of the State to read the English language, the language of American politics and government, the language of American literature and of American social ideals. No achievement in other fields will compensate for failure here, and no mere knowledge of the simple words and sentences of the primary school readers will suffice. Young people should master the words and language structure involved in English sentences and paragraphs which are necessary to mature thought."

As stated elsewhere, the Thorndike-McCall Reading Scale, Form 1, was used. This test is so well known that it is unnecessary to reproduce it here, but it may be well to state that in administering this test and in scoring the papers-as was the case in all the other tests given-the greatest of care was taken to follow the printed directions absolutely, and without the least variation.

[^3]The question as to whether the median score or mean score was the more accurate expression of results was long considered before tabulations of findings were made in any of the tests, but it was finally decided to use the mean or average in most cases. However, for purposes of comparison the $T$ scores in reading are given in both ways as will be seen by referring to Tables XV-XVI, pages 43 and 44. Raw scores in reading were converted into $T$ scores by reference to Table I of the manual accompanying the tests. The $\mathbf{T}$ score may be defined as that score which an average twelve-year-old pupil would make upon a given test. By reference to Table III of the manual T scores can be converted into Reading Ages, and these can be used in securing Reading Quotients by means of the Formula :

$$
\text { Reading Quotient }=\frac{\text { Reading Age }}{\text { Chronological Age }} \times 100 \text { or R. } \mathrm{Q} .=\frac{\text { R. A. }}{\text { C. A. }} \times 100
$$

Reference to Table XV, page 43, in which median $T$ scores for the white schools are given will show the following results:

1. No grade in a one-teacher school is up to standard.
2. No grade in a two-teacher school is up to standard, though the third came within 4 of one point of reaching standard.
3. No grade in a three-teacher school is up to standard.
4. Almost every grade at MIt. Pleasant is a year or more below standard.

## TABLE XVI.

Mean T-Scores in Reading for Gadsden County Schools. Thorn-dike-McCall Reading Scale, Form 1.

| GRADES |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
| One-Teacher |  |  |  |  |  |  |  |  |  |  |

[^4]5. Concord is below standard in all grades.
6. Chattahoochee is up to standard in no grade though almost up in third; but badly below in all others.
7. Greensboro is below standard in all grades.
8. Havana is below standard in all grades.
9. The Quincy lower division is above standard in fifth grades and almost up in twelfth grade.
10. The Quincy higher division is, judged by a mid-year norm, up to standard in the third grade only.
11. Gadsden County is below standard in each and every grade.
12. There is not as much difference in scores of urban schools and rural schools as the differences in length of term and better facilities for teaching would lead one to expect.

Reference to Table XVI, page 44, in which mean T scores were used instead of median scores, will bring out no new facts with reference to the reading situation not shown by Table XV.

Figures 1 and 2, pages 47 and 48, give in graphical form the results shown in Table XVI.

The first graph in Figure 1 represents the mean T scores for a group of seven one-teacher schools. The vertical lines represent the grades, the numbers for which are given in the Roman numerals III-VIII, and the horizontal lines crossing the vertical represent the scores, seen in numbers reading upward, 10 to 70 , on the left-hand side of the figure. The unbroken black line represents the standard norms, and the broken line represents the scores actually made.

This graph in Figure 1 may be read as follows:

1. The average third grade pupil in this group made a score of 29.1, whereas, the standard norm is 31.6 .
2. The average fourth grade pupil of this group made a score of 36.5 , whereas, the standard norm is 38.0 .
3. The average fifth grade pupil in the group made a score of 40.2 , whereas, the standard norm for the grade is 43.2 .
4. The average sixth grade pupil of the group made a score of 45.9, but the standard norm is 49.4 .
5. The average pupil of the seventh grade in this group made a score of 46.4 , but the norm is 54.7 .
6. The average of eighth grade pupils of this group is 44.4 , but the standard norm is 58.9 .

The graphs for the other groups of schools, and the one for the county taken as a whole are read like the one described.

Table XVII, page 46, shows the results of county-wide testing programs carried on by members of the State Department of Public Instruction for Florida in six counties during the school year 19251926, and Figure 3, page 49, represents graphically the results of these testing programs. It will be observed that the grade norms in Table XVII are put in columns parallel to the grade scores, and that these are calculated for the month in which any set of tests was given.
TABLE XVII.

| AVERAGE T-SCORES, THORNDIKE-MCCALL REA DING SCALE, FORM 1, SIX FLORIDA COUNTIES. |
| :--- |


.-.. School Norms

Three 3-Teacher schools


Fig. I

Mean TScores in Reading Thorndike - Ms call Reading Scale Form I. Gadsden Co. Fla: Schools


Gadsden County


$$
\text { Fig. } 2
$$

Mean $T$ Scores in Reading
Thorndike-McCall Reading Scale. Form I Gadsden Co Fla. Schools





$$
\text { Fig. } 3
$$

Mean T Scores in Reading Six Florida Counties
Thorndike McCall Reading Scale Form I

A comparison of graphs in Figures 2 and 3 showing results of the reading tests in Gadsden County, indicates that in Figure 2 results are for the high school grades as well as for the elementary grades, while in Figure 3 they are for the first eight grades only.

The T score shows how well a pupil's reading score compares with the norm for his grade, but McCall ${ }^{1}$ claims that the use of this method alone encourages the school to retard pupils chronologically, either unconsciously or consciously, in order to give an appearance of high efficiency. Given a sufficient percentage of over-ageness or under-ageness, almost any school can appear efficient or inefficient, respectively, when compared with grade standards.

By means of the Reading Quotient it may be determined how well a pupil reads by a comparison of his reading score with the norm for his age. Again, McCall ${ }^{1}$ says, "showing as it does what the school has accomplished for the pupil by a given age rather than a given grade, the Reading Quotient has very great value, because the school cannot raise the Reading Quotient above 100 nor depress it below 100 by creating undue chronological retardation or acceleration respectively."

Table XVIII, page 50, gives the mean Reading Quotients for the

## TABLE XVIII.

Average Reading Quotients for Gadsden County Schools Thorn-dike-McCall Reading Scale, Form I.

GRADES.

| SCHOOLS | III | IV | V | VI | VII | VIII | IX | X | XI | XII |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 One-Teacher Schools.. | 69.4 | 92.7 | 82.1 | 92.3 | 88.7 | 72.0 |  |  |  |  |
| 5 Two-Teacher Schools.. | 85.4 | 75.0 | 80.4 | 89.6 | 80.2 | 77.0 | 72.9 |  |  |  |
| 3 Three-Teacher Schools | 79.8 | 77.3 | 79.5 | 89.8 | 79.1 | 85.6 |  |  |  |  |
| Mt. Pleasant | 63.6 | 65.6 | 86.6 | 82.4 | 77.2 | 73.6 | 85.1 |  |  |  |
| Concord | 78.4 | 81.3 | 84.0 | 97.0 | 85.1 | 91.6 | 79.7 | 90.4 |  |  |
| Chattahoochee | 83.3 | 84.1 | 85.4 | 84.0 | 86.5 | 86.2 | 88.6 | 94.9 | 87.8 | 90.3 |
| Greensboro | 77.1 | 84.0 | 84.0 | 86.6 | 92.4 | 92.9 | 94.9 | 104.5 |  |  |
| Havana | 86.2 | 89.8 | 87.4 | 82.9 | 96.7 | 84.4 | 97.6 | 90.6 | 90.8 | 98.5 |
| Quincy ................... $\{$ Lr. | 89.5 | 100.3 | 97.1 | 95.0 | 87.6 | 95.4 | 93.9 | 99.3 | 97.9 | 102.1 |
| Quincy.................... , Hr. | 94.5 | 92.0 | 89.0 | 100.3 | 92.2 | 96.1 |  |  |  |  |
| Gadsden Co. | 82.1 | 80.4 | 86.0 | 90.1 | 37.6 | 87.9 | 89.8 | 97.5 | 95.1 | 96.4 |
| Thorndike-McCall Standards | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 10 | 100 |
|  |  |  |  |  |  |  |  |  |  |  |

[^5]Gadsden County schools, and it is interesting to note that only three grades in the county, viz., the tenth grade at Greensboro and the higher fifth and the twelfth at Quincy reached or exceeded the norm of 100 , though of course there were, as was true also of the T scores shown in Table XVI, page 44, many individual pupils who scored higher than the norm.

It is a matter of interest to observe that the average county Reading Quotients increase in value from the lower grades through the higher, and especially is this increased in the high school grades. This result can probably be accounted for by the fact that the high school pupils are a "survival of the fittest," the poorer readers having dropped out of school while enrolled in the intermediate or grammar grades.

Table XIX, page 51, shows Reading Quotients worked out for six pupils. This illustration shows some of the best Reading Quotients and some of the poorest found in the county.

McCall's ${ }^{1}$ interpretations of T scores and Reading Quotients are of interest at this point.

TABLE XIX.
READING QUOTIENTS FOR SIX PUPILS, GADSDEN COUNTY SCHOOLS-THORNDIKE-MCCALL READING SCALE, FORM 1.

| Name | C. A. | Score | T-Score | Reading Age | Reading Quotient |
| :---: | :---: | :---: | :---: | :---: | :---: |
| M. H. | 180 mo . | 32 | 77 | 226 mo . | 126 |
| D. C. | 192 mo. | 29 | 65 | 192 mo . | 100 |
| K. H. | 192 mo . | 14 | 36 | 110 mo . | 57 |
| V. R. | 157 mo . | 2 | 26 | 82 mo . | 52 |
| G. T. | 127 mo . | 17 | 40 | 121 mo . | 95 |
| M. S. | 132 mo . | 28 | 61 | 181 mo . | 137 |

Reading Quotient $=\frac{\text { Reading Age }}{\text { Chronological Age }} \times 100$.

TABLE XX.

| A <br> T Score <br> of | ls exceeded by the <br> following per cent <br> of 12-year-olds | T <br> A Score <br> of | Is exceeded by the <br> following per cent <br> of 12-year-olds |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| 25 | 99 | 55 | 31 |
| 30 | 98 | 60 | 7 |
| 35 | 93 | 70 | 7 |
| 40 | 64 | 75 | 2 |
| 45 | 50 | 80 | 0.1 |
| 50 |  |  |  |

[^6]TABLE XXI.

| Reading Quotient | Per Cent of Pupils | Interpretation |
| :---: | :---: | :---: |
| Below 55. | ... 0.1 |  |
| 55 to 65... | .. 2.4 | Exceptionally inferior |
| 65 to 75. | . 8.0 | Very inferior |
| 75 to 85. | 13.5 | Inferior |
| 85 to 95. | 18.0 | Low average |
| 95 to 105. | 19.6 | Average |
| 105 to 115. | 17.0 | High average |
| 115 to 125. | . 10.5 | Superior |
| 125 to 135. | .... 5.8 | Very superior |
| 135 to 145. | ... 3.5 | Exceptionally superior |
| 145 up.. | ... 1.5 |  |

Reducing reading and other subject scores to a grade ability basis makes clear to the teacher and the pupil just the location the pupil's score gives him on a given test. In reading on the ThorndikeMcCall scale it is assumed that the average six-year-old child would make a score of zero, and McCall ${ }^{1}$ assigns a $T$ score of 22 for a score of zero. In like manner a child seven years old would be assumed to answer three questions, and receives a T score of 27 ; an average child of eight years answers eight questions (by actual testing) and receives a $T$ score of 31 ; a child of nine answers thirteen questions, and receives a $T$ score of 37 , etc. Hence, by assuming that the average child enters the first grade at the age of six, and by interpolating for the various months of the school year, we can work out a table for computing age and grade norms as follows:

TABLE XXII.
GRADE ABILITY IN READING.

| No. <br> Correct | Grade <br> Ability* | No. <br> Correct |
| :--- | ---: | :--- | | Grade |
| :---: |
| Ability | | No. |
| :---: |
| Correct |$\quad$| Grade |
| :---: |
| Ability |

* The number to left of the dash represents the grade; that to the right the month of grade.

1. McCall, Wm. A., "How to Measure in Education," pp. 72-73.

By making use of Table XXII we are able to work out grade ability in reading for as many individual pupils as we like. Table XXIII, page 54, shows the grade ability in reading for a class of twenty eighth grade pupils in one of the schools. By reference to this table we observe that pupil L. A. has a grade ability, as revealed by the reading test, of a pupil in the eighth month of the twelfth grade. On the other hand pupil R. M. has a grade ability of a pupil in the eighth month of the fourth grade. All the remaining pupils have grade abilities lying somewhere between these two, there being one pupil with eleventh grade ability, one with that of ninth, one with seventh, five with sixth and nine that have ability of fifth grade pupils. The black vertical line indicates the standard grade norm, and the black vertical broken line indicates the actual class grade norm.
TABLE XXIII.


It will be observed that:

1. There is a range of eight years in grade ability in this class.
2. Two pupils, L. A. and C. C., read like pupils in the upper high school grades.
3. Pupils L. P. and L. F., read with ninth grade ability.
4. The class norm is more than two years below standard.
5. Sixteen of the twenty pupils are below standard, and half of the whole class are three years below standard.

Spelling.
In planning a survey of the spelling abilities of Gadsden County children it was not easy to decide upon lists of words best adapted to this purpose. After serious thought on the subject, and examination of a number of lists used in various surveys, the plan used in the Educational Survey of the State of Virginia ${ }^{1}$ was selected as the one which, in the language of the author of the chapter on Spelling, would meet the requirements that it should: "(1) conform to the type of test used by Ayres, namely, a column test; (2) economize the time of pupils and examiner ; (3) contain words in the natural vocabulary of the children; (4) provide lists of words of equal difficulty for all the grades tested; (5) provoke in the smallest degree misunderstanding during dictation because of the examiner's or pupil's dialect; (6) cover the range of ability represented in grades three to seven, and (7) yield a body of results that would lend itself to the application of approved methods of statistical treatment."

The following list of words, with the column in Ayres' scale in which each is found, and the mid-year percentage standard of each is given. This list will be found to be identical with the Virginia list ${ }^{2}$ except that the first word in that list is omitted, and two words are added at the lower end of the column in order that there may be ten words for each of the grades three to eight in the elementary schools of Gadsden County.

> TABLE XXIV.
> WORD LIST.

| No. | Words | Mid-Year Percentage Standard |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | III | IV | V | VI | VII | VIII |
|  | was .............................H | 92 |  |  |  |  |  |
|  | foot ...............................I | 88 |  |  |  |  |  |
|  | happy ...........................J | 84 |  |  |  |  |  |
|  | could ............................................ | 79 | 92 |  |  |  |  |
| 5. | once ............................. L | 73 | 88 |  |  |  |  |
|  | pretty ..........................M | 66 | 84 | 92 |  |  |  |
|  | always ........................ $\mathbf{N}$ | 58 | 79 | 88 |  |  |  |
| 8. | uncle ........................... 0 | 50 | 73 | 84 | 92 |  |  |
|  | beautiful ...................... P | 42 | 66 | 79 | 88 |  |  |
| 10. | surprise ........................Q | 34 | 58 | 73 | 84 | 92 |  |
| 11. | vessel ..................................... |  | 50 | 66 | 79 | 88 |  |
| 12. | century ....................... $\mathrm{S}^{\text {S }}$ |  | 42 | 58 | 73 | 84 | 92 |
| 13. | invitation ....................T |  | 34 | 50 | 66 | 79 | 88 |
| 14. | necessary ....................U |  |  | 42 | 58 | 73 | 84 |
| 15. | experience ...................V |  |  | 34 | 50 | 66 | 79 |
|  | athletic ......................W |  |  |  | 42 | 58 | 73 |
|  | convenient ......................... X |  |  |  | 34 | 50 | 66 |
| 18. | decision ........................Y |  |  |  |  | 42 | 58 |
| 19. | recommend ................. Z |  |  |  |  | 34 | 50 |
| 20. | discipline .......................... |  |  |  |  |  | 42 |
|  | guarantee ..................AB |  |  |  |  |  | 34 |
|  | Average ................................ | 66.6 | 66.6 | 66.6 | 66.6 | 66.6 | 66.6 |



Note.-Inasmuch as an average of 66.6 is the mid-year norm for each and every grade, and these tests were given in November, a correction of 1.5 per month gives a November norm of 63.6.

1. Educational Survey Series, Vol. 8, page 92-1921.
2. Educational Survey Series, Vol. 8, page 93-1921.

Table XXV, page 57, gives the mean seores of certain schools and groups of schools in the county, and Figure 4, page 59, represents some of these scores graphically. A study of the table reveals the following facts:

1. Only two grades in the county are up to standard in spelling, viz., the eighth grade of the one-teacher schools, and the higher division of the third in Quincy. The eighth grade at Greensboro is only slightly below standard.
2. The showing as a whole is extremely unsatisfactory.
3. Of the sixty grade averages recorded, nine are two years or more below normal, eighteen are one and one-half or more years below normal, and thirty-six are one year or more below normal.
4. The scores for the county as a whole are one-half year to one and one-half years below standard.
5. With only a few exceptions the results in the town schools are not better than those in the rural schools.

TABLE XXV.
Mean Scores in Spelling, Gadsden County Schools. Buckingham Extension, Ayres' Spelling Scale.

GRADES

|  | III | IV | V | VI | VII | VIII |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 7 One-Teacher Schools | $48^{1}$ | 38 | 45 | 42 | 52 | 66 |
| 5 Two-Teacher Schools | 56 | 43 | 57 | 46 | 45 | 56 |
| 3 Three-Teacher Schools | 45 | 34 | 29 | 48 | 53 | 52 |
| Mt. Pleasant | 35 | 39 | 48 | 48 | 35 | 58 |
| Concord .... | 35 | 43 | 50 | 57 | 63 | 54 |
| Chattahoochee | 50 | 39 | 40 | 46 | 45 | 47 |
| Greensboro | 44 | 42 | 35 | 48 | 52 | 63 |
| Havana | 40 | 34 | 33 | 37 | 42 | 50 |
| Quincy ${ }^{\text {S }}$ Lr. | 30 | 54 | 49 | 50 | 47 | 59 |
| Quincy $\left\{\mathrm{Hr} \mathrm{r}^{2}\right.$ | 60 | 72 | 60 | 61 | 55 | 55 |
| Gadsden County | 44 | 45 | 44 | 49 | 49 | 55 |
| Grade Norms . . | 63.6 | 63.6 | 63.6 | 63.6 | 63.6 | 63.6 |

[^7]Figure 4, page 59, shows graphically the results of the spelling test. The diagonally-crossed columns represent the grades as shown at the bottom of the figure, and beside each of these is a blank column representing the grade norm. Values of scores are indicated from zero to 70, reading upward on the left side of the figure. Between the 60 and 70 marks of score measures-at 63.6 the standard norm is indicated.

The graph for one-teacher schools is read as follows:
In the one-teacher group of schools the standard score for all grades is 63.6 , but no grade in that group made a score equal to it. The third grade made a score of 48 , or 15.6 points below standard; the fourth grade made a score of 38 , or 25.6 points below standard; the fifth grade made a score of 45 , or 18.6 points below standard, ete.

The other figures representing spelling scores are to be read as indicated for the one-teacher group.

## Arithmetic.

1. Mixed Fundamentals.
2. Reasoning.

## Mixed Fundamentals

As elsewhere stated, the Woody-McCall tests in Mixed Fundamentals were given to all white pupils in grades three to eight, inclusive, and the Stone Reasoning tests were given to grades five to eight, inclusive.

The test in mixed fundamentals is what the name indicates, viz., examples in addition, subtraction, multiplication and division beginning with very simple examples, and advancing gradually to more difficult ones. A time limit of twenty minutes is allowed, and the work is of sufficient difficulty to prevent very many pupils, even of the higher grades, from finishing all the examples in the time allowed. These tests have been well standardized, and the results obtained ought to be a fair index of the accomplishment of pupils in this phase of arithmetic.

Table XXVI, page 60, and Figure 5, page 61, show in detail the results of testing in mixed fundamentals. It will be observed that Grade Ability (Gr. Ab.) scores-the first numher representing the grade and this with a dash followed by another number representing the month of the school year-have been placed opposite average scores in the columns parallel to the columns for grade averages. These grade ability scores are obtained by interpolating values for
gadsden county schools




Fig. 4
Spelling in Certain Gadsden County
Florida. Schools
Buckingham Extension ayres'Spellimg Scale
TABLE XXVI．
AVERAGE SCORES IN WOODY－MCCALL MIXED FCNDAMENTALS IN ARITHMETIC， GADSDEN COU NTY SCHOOLS．

| GRADES |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 匂 | $\underset{\sim}{4}$ | $B$ | $\underset{\sim}{4}$ | $>$ | $\underset{\substack{\text { ¢ }}}{\substack{\text { ¢ }}}$ | $\stackrel{ }{5}$ | ¢ | $\stackrel{\text { 㞻 }}{ }$ | ¢ | 灵 | 安 |
| 7 One－Teacher Schools． | 8.3 | ＊3－4 | 12.5 | 3－8 | 17.4 | 4－8 | 22.0 | 5－9 | 24.4 | 6－5 | 25.8 | 7－0 |
| 5 Two－Teacher Schools． | 8.7 | 3－5 | 13.7 | 4－2 | 17.2 | 4－8 | 19.9 | 5－5 | 24.6 | 6－6 | 26.2 | 7－2 |
| 3 Three－Teacher Schools | 6.8 | 3－2 | 11.1 | 3－7 | 14.1 | 4－2 | 21.0 | 5－7 | 32.0 | 9－5 | 24.5 | 6－6 |
| Mt．Pleasant | 5.1 | 2－7 | 11.0 | 3－7 | 15.1 | 4－4 | 18.1 | 5－2 | 22.7 | 6－0 | 22.7 | 6－0 |
| Concord | 6.9 | 3－0 | 15.5 | 4－5 | 19.0 | 5－3 | 21.6 | 5－8 | 22.9 | 6－1 | 26.9 | 7－4 |
| Chattahoochee | 7.5 | 3－3 | 13.4 | 3－9 | 17.1 | 4－8 | 18.8 | 5－3 | 22.1 | 5－9 | 24.5 | 6－6 |
| Greensboro | 7.6 | 3－3 | 12.5 | 3－8 | 18.2 | 5－2 | 23.8 | 6－4 | 23.0 | 6－1 | 25.8 | 7－0 |
| Havana | 7.0 | 3－2 | 9.8 | 3－6 | 14.5 | 4－3 | 18.0 | 5－2 | 22.1 | 5－9 | 25.6 | 6－9 |
| Quincy ${ }^{\text {Lr．}}$ | 5.4 | 2－7 | 13.9 | 4－2 | 16.4 | 4－7 | 20.9 | 5－7 | 25.8 | 7－0 | 26.4 | 7－3 |
| Quincy Hr | 10.6 | 3－7 | 16.3 | 4－6 | 22.5 | 6－0 | 24.9 | 6－8 | 27.1 | 7－6 | 26.5 | 7－3 |
| Gadsden County | 8.9 | 3－5 | 13.0 | 3－9 | 17.0 | 4－8 | 21.2 | 5－7 | 24.7 | 6－7 | 25.7 | 6－9 |
| Grade Norms（Nov．） | 7.3 | 3－2 | 13.5 | 4－2 | 18.2 | 5－2 | 22.7 | 6－0 | 26.2 | 7－2 | 28.0 | 8－2 |



Woody-MeCall Mixed Fundamentals
months of the school year between grade norms, as was done in reading (see page 52.) The table for mixed fundamentals is here given :

TABLE XXVII.
Grade Ability in Woody-McCall Mixed Fundamentals

| Score | $\begin{gathered} \text { Grade } \\ \text { Ability* } \end{gathered}$ | Score | Grade Ability |
| :---: | :---: | :---: | :---: |
| 0. | 2-0 | 18. | ... 5-2 |
| 1. | 2-1 | 19. | ... 5-3 |
| 2. | 2-2 | 20. | ... 5-5 |
| 3. | 2-3 | 21. | ... 5-7 |
| 4. | 2--5 | 22. | .. 5-9 |
| 5. | 2-7 | 23. | .. 6-1 |
| 6. | 2-8 | 24. | ... 6-4 |
| 7. | .3-2 | 25. | .. 6-8 |
| 8. | 3-4 | 26. | .. 7-1 |
| 9. | .3-5 | 27. | .. 7-6 |
| 10. | 3-6 | 28. | ... 8-2 |
| 11. | .3-7 | 29. | .. 8-5 |
| 12. | . $3-8$ | 30. | ... 8-8 |
| 13. | 3-9 | 31. | ... 9-1 |
| 14. | ..4-2 | 32. | .. 9-5 |
| 15. | 4-4 | 33. | 9-8 |
| 16. | .....4-6 | 34. | .10-1 |
| 17. | .....4-8 | 35. | .10-5 |

*The number before the dash indicates the grade and the number after it
the month of the grade.
An examination in detail of the scores in Table XXVI reveals the following facts:

1. The one-teacher group of schools is up to standard in the third grade only.
2. The two-teacher schools are up to standard in the third and fourth grades.
3. The three-teacher schools are above standard in the seventh grade.
4. Mt. Pleasant is below standard in all grades.
5. Concord is up to or above standard in third and fourth grades.
6. Chattahoochee equals the standard norm in the third grade, and almost reaches it in the fourth.
7. Greensboro reaches the standard in third, fifth, and sixth grades.
8. Havana reaches the standard in no grade.
9. Quincy lower divisions reach standard in the fourth grade only. The higher divisions reach mid-year standard norms in third, fourth, fifth, sixth and seventh grades.
10. Gadsden County reaches standard in the third grade only.

Figure 5, page 61, shows the distributions of scores by grades in the Woody-McCall mixed fundamentals, the lowest base line being so divided as to give all scores from 0 to 35 , and the columns in the
body of the figure show the number of pupils in the grade making certain scores as indicated on the scale to the left, the number on a horizontal line along the top of the column showing the number of pupils making a given score. The broken vertical lines running through the figures are the standard norm lines. One of the graphs, that for Grade VI, for instance, may be read and interpreted as follows:

1. Of the pupils in the sixth grade taking this test-

2. Only 55 pupils equaled or exceeded the grade norm in this subject, while 130 failed to reach the standard.
3. Scores ranging from 6 to 31 were made by members of this class.

The other graphs may be read and interpreted like this one.

## Reasoning

It was seen in our examination of results on testing on the fundamental operations in arithmetic that a number of grade averages in the county were up to normal and that the county average in one grade, the third, was up to standard, but the tests in reasoning, given to grades five to eight, were disappointing in the extreme.

Stone's Reasoning Test I, containing twelve problems having to do with everyday life situations were given, and a period of fifteen minutes was allowed the pupils in which to work as many problems as they could.

Table XXVIII, page 64, shows the average scores, grade by grade, made by the pupils in the various schools. The results are so poor that they are hardly worth analyzing. The seventh grade average for one-teacher schools is above normal, and the higher seventh grade at Quincy almost reached standard. Of course there were many individual pupils who were up to standard on this subject, but we cannot escape the conviction that teachers have been so concentrating their efforts on formal arithmetic that they have lost sight of problem solving and its contact with the situations of real life.

TABLE XXVIII.
Average Scores in Stone's Reasoning Test, Gadsden County Schools.

GRADES.

|  | V | VI | VII | VIII |
| :---: | :---: | :---: | :---: | :---: |
| 7 One-Teacher Schools | 1.3 | 1.5 | 6.8 | 2.7 |
| 5 Two-Teacher Schools. | 0.5 | 2.0 | 3.1 | 6.4 |
| 3 Three-Teacher School | 1.1 | 1.8 | 3.1 | 4.2 |
| Mt. Pleasant | 0.4 | 2.3 | 3.4 | 4.0 |
| Concord | 1.5 | 2.3 | 3.1 | 6.3 |
| Chattahoochee | 0.6 | 2.4 | 3.5 | 5.0 |
| Greensboro | 1.1 | 2.6 | 4.1 | 5.4 |
| Havana | 0.9 | 2.0 | 2.9 | 5.0 |
| Quincy.. | 2.3 | 3.3 | 4.1 | 6.5 |
| Gadsden County | 1.2 | 2.7 | 4.2 | 5.4 |
| Grade Norms. | 4.0 | 5.0 | 6.5 | 7.75 |

## Language

Grades four to eight, inclusive, were given Trabue's CompletionTest Language, Scale C. This test, as the name indicates, is one in which one or more words are omitted from each of a series of sentences. The test begins with very easy sentences, but is increasingly difficult from beginning to end. The pupils are given seven minutes in which to complete as many of the sentences as possible, and, although the test is considered an easy one, very few pupils, even of the upper elementary grades, are able to correctly complete all the sentences.

References to Table XXIX, page 65 , will show that, taken as a whole, the children tested made very good scores on this test. It will be noted that for the county as a whole the standard norms were equaled or exceeded by grades four and six, and that grades five, seven and eight are only slightly below normal.

By groups and by individual schools the results are as follows:

1. No grade in a one-teacher school reached the standard norm.
2. Grades seven and eight in the two-teacher schools are up to standard.
3. Grade seven in the three-teacher schools reached the standard norms.
4. No grade in the Mt. Pleasant school was up to standard.
5. The fourth and eighth grades of Concord each exceeded its norm by one point or more.
6. Chattahoochee reached the standard in the seventh grade.

## TABLE XXIX.

Average Scores in Trabue's Completion-Test Language, Scale C, Gadsden County, Fla., Schools. GRADES.

|  | IV | V | VI | VII | VIII |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 7 One-Teacher Schools. . | 75 | 8.6 | 10.5 | 12.0 | 11.4 |
| 5 Two-Teacher Schools. . | 6.4 | 90 | 10.1 | 12.4 | 13.6 |
| 3 Three-Teacher Schools | 7.8 | 88 | 10.7 | 12.5 | 13.1 |
| Mt. Pleasant | 5.1 | 9.3 | 10.7 | 11.4 | 12.3 |
| Concord | 92 | 8.7 | 10.5 | 11.0 | 14.4 |
| Chattahoochee | 7.5 | 8.6 | 10.1 | 12.6 | 12.7 |
| Greensboro | 73 | 9.7 | 11.4 | 12.3 | 124 |
| Havana | 7.6 | 10.1 | 9.8 | 11.2 | 14.1 |
| Quincy......... $\{$ Lr. | 9.1 | 98 | 11.9 | 11.7 | 12.7 |
| Quincy........ , Hr. | 99 | 10.2 | $15.1 \mid$ | 12.8 | 13.3 |
| Gadsden County | 8.3 | 9.5 | 11.5 | 12.2 | 13.1 |
| Grade Norms. for Fall | 8.0 | 10.0 | 11.4 | 12.4 | 13.4 |

TABLE XXX.
Percentile Scores for Trabue's Completion-Test, Scale C, Gadsden County, Florida Schools.

|  |  |  | V | VI | VII |
| :---: | :---: | :---: | :---: | :---: | ---: |
| Percentile | IV |  |  | VIII |  |
|  |  |  |  |  |  |
| High | 13.5 | 14.9 | 17.1 | 17.7 | 18.4 |
| 95 | 12.2 | 13.9 | 15.7 | 15.6 | 16.6 |
| 90 | 11.3 | 12.2 | 15.2 | 14.9 | 15.8 |
| 80 | 10.2 | 11.7 | 13.8 | 13.9 | 14.9 |
| 70 | 9.2 | 10.4 | 12.6 | 13.2 | 13.9 |
| 60 | 8.1 | 9.7 | 11.9 | 12.5 | 13.5 |
| $50^{*}$ | 7.4 | 9.1 | 11.1 | 11.7 | 13.0 |
| 40 | 6.8 | 8.6 | 10.4 | 11.3 | 12.0 |
| 30 | 5.8 | 8.0 | 9.6 | 10.5 | 11.4 |
| 20 | 5.2 | 7.0 | 8.2 | 9.3 | 10.8 |
| 10 | 3.4 | 5.7 | 7.5 | 8.5 | 9.9 |
| Low | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|  |  |  |  |  |  |

*IV Gr. $-50 \%$ made a score of 7.4 or less.
V Gr. $-50 \%$ made a score of 9.1 or less.
VI Gr. $-50 \%$ made a score of 11.1 or less.
VII Gr.- $50 \%$ made a score of 11.7 or less.
VIII Gr.- $50 \%$ made a score of 13.0 or less.
7. Greensboro reached the standard in the sixth grade, and missed it by only a tenth of a point in the seventh.
8. Havana is up to standard in the eighth grade only.
9. The lower divisions of Quincy are up to standard in the fourth, sixth and eighth grades, and almost up in the fifth.
10. The Quincy higher grades are up to mid-year standards in the fourth, sixth and seventh and almost up in the other two.
Table XXX, page 65, gives the results of the language completion test in terms of percentiles. The fifty percentile is the median, and the interpretation is that fifty per cent of a given class made that score, or less. In like manner it is understcod that ten per cent made the ten percentile score, or less, twenty per cent the twenty percentile score, or less, etc. Figure 6, page 67, represents the percentile scores in graphical form. It will be observed by reference to the graph for Grade IV, for instance, that the 10, 20,30 , etc., percentiles are indicated in ascending order, on the left side of the figure, and the scores for these percentiles each at the bottom of the figure, ranging from left to right. This graph is made by (1) securing a distribution of scores in the subject for a given class or grade, (2) getting the total number of scores, (3) getting the percentage a single score is of the total number of scores, (4) finding what per cent each score, plus all below it, is of the whole score by multiplying that score by the percentage a single score is of the total number of scores in the distribution, and (5) plotting the percentage obtained in the last step upon the graph paper as shown by the figure. It will be observed that a broken horizontal line leads from the percentile point to the curve, and that a broken vertical line leads from this point of contact to the base line, thus enabling us to read the score corresponding to any percentile point. The graph may be read just as Table XXX, viz. : "Ten per cent of the pupils made a score of 3.4 or less," etc.




## Fig. 6

Percentile Scores
Trabue's Completion Test Language scale c

## Handwriting

Handwriting specimens were secured from pupils of grades four to eight. A copy of the first part of Lincoln's Gettysburg address was put on the board by the examiner and the pupils were helped to understand the words, and to become more or less familiar with the passage. All pupils were provided with smooth-surfaced paper, and, where necessary, were allowed the use of pens and ink furnished by the examiner. In case the surface of the desk was uneven, a pupil was allowed to place a piece of cardboard or a thin book under his specimen paper. At a given signal all began to write, and in exactly two minutes they were told to stop. As soon as the specimens were dried they were taken up. Two persons were allowed to score each specimen for quality. The Gettysburg edition of the Ayres Scale, on which specimens of handwriting ranging in quality from 20 to 90 are recorded, was used. The first scorer would compare each specimen of a set with the scale and record her score on the back. The other scorer would place scores on the face of each specimen without having seen the score on the back. A third person calculated the rate or speed of writing by finding the total number of letters written on a given specimen (a process made easy by a scale devised for the purpose), and by dividing this number by two the number of letters written per minute was determined. The final score in quality for each specimen was obtained by averaging the two marks of the scorers.

Table XXXI, page 69, gives the average scores for schools and groups of schools in both speed and quality, and the Gadsden County averages are given just above the standard grade norms. Figure 7, page 70 , shows these same results graphically.

Analyses of results of speed and quality in handwriting as shown by Table XXXI, are extremely disappointing. Not a single grade in the county came up to standard, either in rate or quality, and the averages in all cases are so low as to give the impression that handwriting is being almost entirely neglected in the schools of the county. Early in the survey the examiners found that they must take pens and ink with them if they were to secure specimens of the writing of all the children, and in some cases even in the larger schools pens and ink had to be borrowed from other rooms before the test could be carried on.
TABLE XXXI.

| Speed and Quality in Handwriting, Gadsden Co., Fla., Schools. Ayers' Scale. (Average Scores.) |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | IV |  | v |  | VI |  | VII |  | VIII |  |
|  | Speed | Qual. | Speed | Qual. | Speed | Qual. | Speed | Qual. | Speed | Qual. |
| 7 One-Teacher Schools. | 23 | 27 | 36 | 30 | 44 | 36 | 53 | 39 | 58 | 62 |
| 5 Two-Teacher Schools. | 30 | 25 | 41 | 29 | 39 | 38 | 53 | 37 | 55 | 43 |
| 3 Three-Teacher Schools | 36 | 23 | 36 | 34 | 47 | 40 | 41 | 46 | 55 | 51 |
| Mt. Pleasant. | 29 | 30 | 43 | 29 | 38 | 34 | 49 | 37 | 46 | 38 |
| Concord..... | 29 | 29 | 40 | 33 | 44 | 34 | 45 | 43 | 44 | 61 |
| Chattahoochee | 33 | 31 | 44 | 34 | 55 | 32 | 48 | 40 | 68 | 41 |
| Greensboro. | 31 | 33 | 36 | 40 | 37 | 39 | 47 | 43 | 52 | 44 |
| Havana. | 48 | 30 | 40 | 37 | 52 | 35 | 60 | 41 | 60 | 48 |
|  | 34 | 33 | 35 | 34 | 58 | 35 | 61 | 41 | 65 | 48 |
| Quincy Hr . | 34 | 35 | 34 | 32 | 48 | 38 | 61 | 40 | 74 | 56 |
| Gadsden County | 41 | 31 | 40 | 33 | 49 | 38 | 57 | 41 | 65 | 48 |
| Standard Grade Norms | 56 | 46 | 64 | 50 | 71 | 54 | 76 | 58 | 80 | 62 |

Speed and Quality Combined


$$
\text { Fig. } 7
$$

Speed and Quality of Handwriting
Byres' Handwriting Scale

Figure 7 simply tells in graphical form the dismal story of poor handwriting. Graph 1 shows combined speed and quality, speed scores being found on the left vertical margin, and quality being shown below the base line. Ayers' standard scores are represented by unbroken lines, while the Gadsden County scores are shown by broken lines. Graph 2 shows the record for speed for grades four to eight, for the entire county, while Graph 3 shows the record for quality. In both of these graphs scores are indicated along the left vertical side of the figure, and grades along the base line. As in Graph 1, the solid curves show Ayers' standards, and broken lines indicate average grade scores.

We cannot too strongly urge that the teachers and school officials of the county begin a campaign in the schools for better handwriting, and that they persevere in this work until every child shall be able to write easily and legibly all ordinary school exercises.

## Results of Tests in Individual Schools

During the first week in March, 1925, upon the invitation of Mr. C. H. Gray, County Superintendent of Gadsden County, the writer made a series of five addresses to patrons of five different schools upon the results of the educational survey of the county. Night meetings were held, and each was well attended. The need for better schools through consolidation of the small schools to form larger ones was the central theme running through all these discourses, and the County Superintendent made strong pleas in behalf of the plans proposed. Patrons and other interested taxpayers asked questions and joined in the discussions, and there is every indication that public sentiment in the county is ready to demand better schools for the boys and girls. At each of the meetings graphs showing results of standard tests in the local school were drawn on the blackboard and explained, in detail, to the audience. Figure 8, page 72, is a copy of the graphs used in the meeting at Providence, and as these are similar to those already shown in this chapter, they need no explanation.


Spelling


Reasoning



Arithmetic


Speed in Writing


Quality in Writing


$$
\text { Fig } 8
$$

Results of Standard Tests in Providence School

## CHAPTER VI.

## Abllity and Accomplishment.

The discussion in the last chapter of the results of instruction in the Gadsden County schools brought out among other things the fact of the wide range of accomplishment of pupils in the various classes of the schools. A number of causes no doubt contribute to the success or failure of a pupil in his school work. Ambition to succeed, diligence in preparation of lessons, gocd health, and regularity in attendance are wonderful factors making for success, just as poor general health, irregularity in attendance, poor preparation of lessons, a poor curriculum, defective hearing, defective eyesight, etc., make it extremely hard for the pupil to make progress in his studies; but in recent years we have come to know that there is still another reason for success or failure which perhaps outweighs in its importance all the other causes combined. This other reason is native intelligence or general ability to do school work. Pressey ${ }^{1}$ calls this ability "capacity for profiting by instruction." Teachers are frequently aware that the abilities of the pupils in the same class are widely separated, but when the real extent of this range is brought out by means of tests of mental ability they are astounded at the results. Starch ${ }^{2}$ says: "This enormous range of ability and the resulting overlapping of successive grades is probably the most important single fact discovered with reference to education in the last decade."

## Tests of General Ability

Realizing the importance of general ability in all school accomplishment group intelligence tests were given to all pupils, grades two to eight, in the Gadsden County schools. The Haggerty Intelligence Examination, Delta 1, was given to grades two and three, and the Illinois General Intelligence Scale, Form 1, was given to grades four to eight.

The Haggerty Intelligence Examination, Delta 1, is made up of twelve exercises, six pre-exercises for practice only, and six that are to be graded. Very little writing is required to take this examination and the items, largely in the nature of pictures with which something is to be done, are interesting to young children. The skilful examiner soon wins the confidence of the group to whom the test is to be given, and the children enter into it as a wonderfully fascinating game.

Table XXXII, page 74, gives the number of pupils in grades two and three, by schools or groups of schools, who took the Haggerty Examination. The second column under each grade gives the median scores made, and the third column gives the grade norms for November.

[^8]TABLE XXXII．
Median Scores，Haggerty＇s Intelligence Examinations，Delta 1， Grades II and III，Gadsden Co．

| SCHOOLS． | Grade II． |  |  | Grade III． |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 或淢 | 烒罭 |
| 7 One－Teacher Schools． | 5 | 44.0 | 57＊ | 13 | 48.0 | 69＊ |
| 5 Two－Teacher Schools． | 26 | 44.0 | 57 | 23 | 590 | 69 |
| 3 Three－Teacher Schools． | 8 | 33.0 | 57 | 14 | 52.5 | 69 |
| Mt．Pleasant | 8 | 29.5 | 57 | 17 | 43.0 | 69 |
| Concord | 6 | 235 | 57 | 22 | 36.0 | 69 |
| Chattahoochee | 32 | 31.0 | 57 | 31 | 56.0 | 69 |
| Greensboro | 24 | 405 | 57 | 34 | 45.0 | 69 |
| Havana | 12 | 41.0 | 57 | 23 | 52.0 | 69 |
| Quincy ．．．．．．J Lr．．． | 37 | 260 | 57 | 35 | 51.0 | 69 |
| Quincy ．．．．．．．．． Hr ．．． | 29 | 46.0 | 57 | 36 | 65.0 | 69 |

＊Norm．for November

It will be noted that in no case is a median score for a grade up to standard，and in most cases the score is a year or more below standard． Individuals equaled or exceeded the norms as will be seen by reference to the following table，but taken as a whole the results are disap－ pointing．

## TABLE XXXIII.

## Scores Equal to or Exceeding Grade Norms; Haggerty Intelligence Examination Delta 1, Gadsden County Schools-Groups or Schools.

| GRADE II | GRADE III |
| :---: | :---: |
| 1-Teacher ...................................... | 1-Teacher ..... ................................ 2 |
| 2-Teacher ..................................... | 2-Teacher ...................................... 6 |
| 3-Teacher ..................................... | 3-Teacher ..................................... 2 |
| Mt. Pleasant ................................. | Mt. Pleasant ................................ 1 |
| Concord ........... .......................... | Concord ....................................... 0 |
| Chattahoochee .... ........................ | Chattahoochee ............................. 4 |
| Greensboro ....... ......................... | Greensboro .................................. 2 |
| Havana ......................................... | Havana ......................................... 1 |
| Quincy | Quincy ........................................ 15 |

The Illinois General Intelligence Scale is made up of seven separate tests, as follows : (1) analogies, (2) arithmetic problems, (3) sentence vocabulary, (4) substitution, (5) verbal ingenuity, (6) arithmetical ingenuity, and (7) synonyms-antonyms. It is not claimed for any group intelligence test that it measures all the capabilities and capacities of pupils, but the above-mentioned battery of tests ought to enable us to obtain a fair estimate of the ability of the pupil to do school work.

Each of the seven tests is timed, and all pupils start and stop at the same time. There are a sufficient number of exercises under each test to make it exceedingly difficult for a pupil to finish answering all in the time allowed, and the content of some of the tests is of gradually increasing difficulty from the first to the last. Pupils answer questions by underscoring the right word or number, crossing out a word or number, substituting a number for a symbol, and by working simple problems in arithmetic.

The scoring is highly objective, there being score cards with the right answers indicated opposite the numbers corresponding to the given exercises, and so with ordinary care on the part of the scorer results practically accurate ought to be obtained.

After the scores for the separate tests are obtained, these are recorded on a blank provided for that purpose on the cover page of the examination booklet, and the total recorded at the foot of the column. From this total raw score the mental age in years and half years is looked up in a table provided for that purpose in the Teacher's Handbook which accompanies the test, and recorded in a space provided for it beneath the total score.

The authors of the Illinois General Intelligence Scale interpret the values obtained to be distributed as follows:

## TABLE XXXIV.

| Degree of Brightness | Per cent of All Children included |
| :---: | :---: |
| "Near" genius or genius. | 1 |
| Very superior . . . . . . . | 6 |
| Superior ... | 13 |
| Normal or average. | 60 |
| Dull ........... | 13 |
| Border line | 6 |
| Feeble-minded | 1 |

The intelligence quotients for Gadsden County schools, grades four to eight are shown in the following table:

> TABLE XXXV.
I.Q.'s for Gadsden County

| Ranges | Cases |
| :---: | :---: |
| 140 and abo | 7 |
| 125-139 | 32 |
| 115-124 | 69 |
| 85-114 | 417 |
| 75-84 | 194 |
| 60-74 | 207 |
| Below 60 | 55 |
| Total | 971 |

Figure 9, page 77, shows in graphical form the data found in Table XXXV. It will be observed that of the 971 pupils in grades four to eight who were given the intelligence test $5.7 \%$ have intelligence quotients below $60 ; 21.3 \%$ between 60 and $74 ; 20 \%$ between 75 and 84 , and $42.9 \%$ between 85 and 114 , which constitutes the normal group. Above the normal group the numbers are smaller, there being only $6.1 \%$ having an I. Q. between 115 and $124,3.3 \%$ between 125 and 139 , and $0.7 \%$ at 140 or above.

Figure 10, page 78, shows the distributions of intelligence quotients in (1) three groups of rural elementary schools, and (2) three larger elementary schools. The symmetrical curve in each graph was plotted from the calculated per cent of all children included in the author's interpretation of I. Q. values, Table XXIV, column 3. The broken line in the first graph represents a group of one-teacher schools, the dotted line two-teacher schools, and the dash-dot line three-teacher schools. The curves in the second graph may be interpreted according to the legend as in the first. Along the base line in each of the graphs are given the ranges of the seven groups of intelligence quotients, and along the left margins are given the scales for cases reduced to a percentage basis.


Fig. 9
Illinois General Intelligence Scale
Grades 4-8


- Nor. curve
----।- Tar school
.0.0 2-Tchr. Set's.
Three Large Graded Schools


Fig. 10
A comparison of Intelligence
Quotients of Small and Large Schools
Gadsden County, Florida
Grades 4-B

By reference to the first graph in Figure 10, one readily observes that all three of these groups of schools make a very poor showing in general ability. The results for the one-teacher group may be read as follows:
(a) Seven per cent of the pupils in this group made a score of less than 60 .
(b) Forty-two per cent made a score of 60-74.
(c) Eight per cent made a score between 75 and 84 .
(d) Ten per cent made a score of 85-114.

In like manner the results for the other groups may be read and interpreted.

The three large elementary schools make a much better showing than the rural elementary schools. Here it will be observed that all three of the curves representing these schools follow more or less closely the outline of the normal curve. The dash-dot line represents the largest of the schools of the group and we find that this curve most nearly approximates the normal.

The question now arises as to why the large graded schools make so much better showing in intelligence or general ability than is made by the three groups of rural elementary schools. The tests given were intended to measure native ability as distinguished from abilities acquired as a result of attendance upon school, but this writer believes that group tests of mental ability measure not only native ability, but also acquired abilities gotten as a result of attendance upon a good school, and from contacts of every kind whatsoever intended to impart knowledge. It is possible that a process of selection is involved in this situation, and that the stimulation of social life in the towns influences, to some extent, the status of intelligence of the urban group. This then is the answer to our question: Other factors being equal, the larger schools, with longer terms, better teachers, and better facilities for instruction give greater opportunity for growth of general ability than is afforded by the rural elementary schools.

## Mental Age—Its Significance

In another part of this chapter we explained how to determine mental ages as a result of the giving of intelligence tests-but it is well just here to say something about the significance of mental age as related to success or failure in school work. The child comes into the world endowed with a certain amount of native intelligence -some with more than others-and this inherited gift is caused to grow and develop through life experiences as the body increases physically. If all children had an even start with equal gifts of native ability, and if this endowment of nature could grow equally well and at a uniform rate in each, all human beings would live on the same mental level; but unfortunately, or it may be fortunately, this condition of mental uniformity does not and cannot exist. Chronological age and mental age in the individual are frequently
wide apart, and it is not an uncommon thing to find a child eight years old chronologically whose mental age is on a level with average twelve-year-olds; or to find a child of fourteen whose mental age is only five or six. This overlapping of mental ability as expressed by differences in chronological and mental ages of school children is the greatest problem with which psychologists and teachers have to deal. The attempt to classify children according to chronological age only has filled classes with children with very wide ranges of general ability. Although opinion is divided upon the extent to which reclassification of children according to ability is wise, Starch ${ }^{2}$ in expressing the range of intelligence among school children and the possibility of classification according to ability says that-

By reference to Table XI, page 35, which is the mental age grade distribution of the white pupils of Gadsden County, grades 4-8, we see that the wide range of mental abilities characteristic of schools in general is found to a marked degree in these schools. In grade three, for instance, we find four pupils with mental ages as low as the five-year level and one as old mentally as the average thirteen-year-old child. In grade six we find a range in years of seven to fifteen, and in grades seven and eight, each a difference of ten years, or from eight to eighteen. No school can do justice to its children if the classes are filled'with pupils of widely varying abilities, so better teachers, better books, wider experience, and all those influences providing for the intellectual needs of the boys and girls should be furnished. The best results cannot be secured by teachers inexperienced in child nature and needs, or in the ordinary technique of testing and teaching. The employment of a county supervisor to assist the inexperienced teachers would work a transformation in the schools within the short space of a few years.

## Accomplishment and the Accomplishment Quotient

In Chapter V we discussed the pupil achievement in the elementary school subjects and compared the mean accomplishment of schools and groups of schools, grade by grade, with standard norms in these subjects, but it is now our purpose to inquire into the question of individual accomplishment of Gadsden County pupils, and to discover whether each pupil is achieving up to his ability in his school subjects.

1. Starch, Daniel-Educational Psychology, Page 39.

A certain pupil in grade six, we will say, has made an achievement score of 43 on reading, whereas the norm for his grade is 48 . Another pupil makes 56, or eight points above the standard score. The question now arises as to whether the pupil making the low score is working up to his ability in spite of his low mark, and also as to whether the boy making a score above normal has done his best. An attempt to answer this question has within the last few years caused Franzen' to advocate what he calls the "accomplishment quotient," which is in the words of Toops and Symonds ${ }^{3}$ "a measuring device for combining in an effective way the results of educational and mental tests into a measure of educational achievement relative to the pupil's capacity to progress." Under the name "achievement quotient" Monroe and Buckingham ${ }^{3}$ have proposed a similar scheme, and Pintner" has developed "a different statistical technique" to serve the same general purpose.

There is not absolute agreement among those who have proposed this device as to what may be the proper interpretation of its results, but all seem to agree that a comparison of the mental ability of a pupil with his actual achievement ought to give an index to the degree to which he has exerted himself to do his best.

The accomplishment quotient, in brief, is the result obtained by dividing the mental age of a pupil into his educational age. The educational age of an individual is determined by securing a composite of his scores in reading, arithmetic, spelling, etc., and looking up in an educational age table the age corresponding to the composite score. In obtaining the composite score the grade norms for reading, spelling, language completion, mixed fundamentals in arithmetic, and reasoning were employed, the unweighted norm seore in each being used, except that spelling was given only half its norm value."

The following samples from the tabulation sheets will show the scores for three pupils in the various subjects, the composite or educational seore, and the educational age, in months, as read from the table:

| Pupil. | Read | Spell. | Lang. | Mxd. F. | Reas. | Composite | Educational |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Score | Score | Score | Score | Score | Score | Age |
| P. Sc. | 43 | 10 | 6 | 18 | 2.4 | 74.4 | 101 |
| J. C. | 43 | 30 | 7 | 22 | 1.4 | 88.4 | 112 |
| H. T. | 45 | 90 | 11 | 21 | 1.0 | 123.0 | 146 |

1. Franzen, R., The Accomplishment Quotient, Teachers College Record, Vol. 21, No. 5, November, 1920, pp. 432-440.
2. Toops, Herbert A., and Symonds, P. M., What Shall We Expect of the A. Q.? Journal of Educational Psychology, December, 1922.
3. Monroe, W. S., and Buckingham, B. R., Illinois Examination, Teachers Handbook, University of Illinois, Bureau of Educational Research, July, 1920, p. 31.
4. Pintner, R., and Marshall, H. A., A Combined Mental Educational Survey, Journal of Educational Psychology, Vol. 12, No. 1, January, 1921, pp. 32-43.
5. It must be understood that a separate educational age table must be computed for each scheme of weighting of grade norms.
6. These pupils were selected at random as representative of all in the county, complete tabulation sheets for all are available.

## Now if we make use of the formula-

Educational Age
Accomplishment Quotient $=\frac{\text { Mental Age }}{}$
we shall be able to find the accomplishment quotient for each of these pupils, and this is tabulated as follows:

| Pupil | Mental <br> Age | Educational <br> Age | Accomplishment <br> Quotient |
| :--- | :---: | :---: | :---: |
| P. S. | 120 | 101 | 84 |
| J. C. | 108 | 112 | 104 |
| H. T. | 126 | 146 | 116 |

A more extended tabulation for these three pupils is now given: Pupil Grade C. A. M. A. I. Q. Compos. Educational Accm.

| P. S. | 5 | $12-0$ | $10-0$ | 83 | 74.4 | 101 | 84 |
| :--- | :--- | :--- | ---: | :--- | ---: | :--- | ---: |
| J. C. | 6 | $15-11$ | $9-0$ | 57 | 88.4 | 112 | 104 |
| H. T. | 5 | 13.0 | $10-6$ | 81 | 123.0 | 146 | 116 |

According to the data before us we find P. S. (a boy) in the fifth grade, twelve years old chronologically, but only ten years old mentally; his intelligence quotient (I. Q.) 83, and his composite score on tests is 74.4. His educational age is 101 months, but his accomplishment quotient is only 84 . Inasmuch as 100 is the normal accomplishment quotient, we are forced to the conclusion that this boy is making little effort to do his sehool work.
J. C. (a girl) is in the sixth grade, is fifteen years, eleven months old, chronologically, but her mental age is only nine years. She has an I. Q. of only 57 , but her composite score is 88.4 , her educational age 112 months, and her accomplishment quotient is 104 , or about normal. J. C.'s low mental age ran up her accomplishment quotient. If her mental score is correct she is accomplishing all that can be expected of her.
H. T. (a boy) is in the fifth grade, his chronological age is thirteen and his mental age ten years, six months. His $1 . Q$. is 81 , his composite score 123, his educational age 146 months and his accomplishment quotient 116. His accomplishment is far more than we might normally expect.

All the other hundreds of cases on the tabulation sheets could be analyzed as has been done in the case of these three pupils, but lack of space forbids even the publication of the tabulations. It would be well, however, for the teachers of next year to have this definite information with reference to the accomplishment of each of their pupils to the end that they may better adapt their work to the individual needs of their children.

## CHAPTER VII.

## Buildings, Grounds and Equipment.

One of the first essentials of a good school system is that it shall have attractive buildings, and neat, well-kept grounds.

In order to determine how well the schools of Gadsden County measure up to standards in the matter of school buildings, grounds, and equipment the survey staff measured every school by means of the Butterworth sehool-building score card. The actual seore of a typical one-teacher school is here reproduced in order to give a concrete illustration of the scope and nature of the score card. (See score card begiming on this page.) "The essential standard credit" and "additional credit" items are summaries of a great number of scores on these items, too numerous to be shown in this discussion.

Although the Butterworth score card was designed for use in oneteacher school buildings only, it was decided to use this card for scoring all the buildings in the county. The exclusive use of this card may be slightly unfair to some of the larger schools inasmuch as they have auditoriums, offices, laboratories, etc., not counted on this card, but for purposes of comparison it was thought that only those points should be considered that were applicable to all. The total scores, then, for some of the larger buildings may not be as great as they would have been had the Strayer-Englehardt score card been used in these cases, but this seeming injustice is possibly compensated for in having all the buildings measured by a common plan.

## THE SCORE

Note. In column 2 below place the credit allowed rach item as "essential standard credit": in column 4 place the "additional credit" allowed in terms of the standards and ralnes presented in the bulletin that is designed to accompany this scale. The various credits may be summarized in columns 3 and 5 under the different group headings. If additional credit is granted for items not given in the bulletin, these should be included at the bottom of this page under "Other Items."

|  | EssentialStandard Credit |  |  | Additional Credit |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | - 2 | 3 | 4 | 5 |
| I. The Classroom |  | 340 | 180 |  |  |
| 1. Size | 40 | 40 |  |  |  |
| 2. Shape | 20 | 20 |  |  |  |
| 3. Window placement | 35 | 0 |  |  |  |
| 4. Glass area | 30 | 10 |  |  |  |
| 5. Shades | 15 | 5 |  |  |  |
| 6. Floor | 15 | 5 |  |  |  |
| 7. Walls | 15 | 5 |  |  |  |
| 8. Color scheme | 20 | 0 |  |  |  |

The Score-(continued.)



Table XXXVI, page 87, shows comparisons of the actual scores of each building with the "essential standard scores." It will be noted that no Gadsden County building comes up to the required standard under any one of the five heads, and that the scores throughout are very low. The last column shows the total scores. Here we find the high school building at Quincy ranking first, with a score of 815 , but this building lacks 185 points of the 1,000 necessary for a school up to standard in every respect. The lowest score is that of Hammock-Creek building, and this goes down to 345. Figure 11 shows the scores of the school buildings in graphical form. The median score is 520 points, or only a few points above fifty per cent of the standard 1,000 points required for thoroughly modern, well-equipped school buildings. The median score for 1,438 one-teacher school buildings in the State of New York was 600.4 points, so it will be seen that the median score for Gadsden County is very low. It will be noted in Figure 11 that a heavy vertical line has been drawn through the score of 500 . This line shows which schools are not above the fifty per cent score, and which make a better showing.
"Experience resulting from the application of the score card to hundreds of school buildings in various sections of the United States suggests that a score of 900 to 1,000 points indicates a highly satisfactory degree of construction and equipment. In fact, in only a few minor respects does such a building deviate from acceptable standards.
"A rating between 700 and 900 points is fairly satisfactory. Such a rating should be studied in light of its component parts. Slight building alterations, the need for which will be indicated by the low score allowed on such items, will tend to raise considerably the score of a building in this group. A score of 500 to 700 points has meant that considerable alterations was needed before these buildings could be brought to a satisfactory standard of efficiency.
"When scores of buildings have fallen below 500 .points, it has been the universal judgment of those who have built the score card that speedy abandonment of those buildings for school purposes was the only justifiable course to be followed. In all instances where scores of 500 points or less have resulted, it has seemed that expenditures for repairs and reconstruction would be highly excessive. It has also seemed that there was little possibility, even with the expenditure of relatively large sums of money, to secure as a result of such repairs and reconstruction a building which was suitable for school purposes.' ${ }^{\prime *}$

If the above-quoted interpretation of school building scores is to be considered reliable-and it is to be so considered-then reference to Table XXXVI and Figure 11, page 88, will indicate that eleven of the school buildings of the county should be abandoned, and that eight others need to be very much improved before being considered

[^9]TABLE XXXVI.

## a Comparison of gadsden County building scores with

 ESSENTIAL STANDARD SCORES.|  | - |  |  |  |  |  | ¢ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Essential Scores |  | 340 | 80 | 255 | 155 | 170 | 1000 |
| Hammock Creek |  | 145 | 15 | 50 | 65 | 70 | 345 |
| Glory |  | 125 | 0 | 110 | 50 | 80 | 365 |
| Sawdust |  | 145 | 0 | 100 | 65 | 70 | 380 |
| Sycamore |  | 130 | $\overline{7}$ | 90 | 75 | 90 | 390 |
| Hopewell |  | 145 | 0 | (i0 | 105 | 85 | 395 |
| Federal Roads |  | 115 | 0 | 75 | 100 | 115 | 405 |
| Providence |  | 130 | 0 | 110 | 85 | 105 | 430 |
| Hardaway |  | 145 | 0 | 120 | 95 | 90 | 450 |
| Pine Grove |  | 175 | 0 | 65 | 125 | 105 | 470 |
| Crossroads |  | 150 | 0 | 95 | 125 | 130 | 500 |
| Edwards |  | 155 | 0 | 10\% | 120 | 120 | 500 |
| Mt. Pleasant |  | 210 | 0 | 105 | 75 | 130 | 520 |
| Gretna |  | 175 | 0 | 110 | 100 | 135 | 520 |
| Flat Creek |  | 180 | 30 | 110 | 105 | 115 | 540 |
| Havana El. |  | 190 | 0 | 145 | 130 | 135 | 620 |
| Concord |  | 250 | 25 | 120 | 125 | 140 | 660 |
| Greensboro |  | 250 | 35 | 120 | 130 | 140 | 675 |
| Quincy .El. |  | 235 | 35 | 145 | 150 | 120 | 685 |
| Jamieson |  | 257 | 20 | 175 | 140 | 100 | 692 |
| Midway |  | 305 | 50 | 155 | 130 | 115 | 755 |
| Havana H. S. |  | 275 | 45 | 160 | 145 | 135 | 760 |
| Chattahoochee |  | 275 | 60 | 220 | 130 | 110 | 795 |
| Quincy H. S. . |  | 290 | 55 | 200 | 140 | 130 | 815 |


| Schools | 1002003008000000 | $0^{\text {e S }} 600$ |  |
| :---: | :---: | :---: | :---: |
| Gadsden Co. H.S | \% | T010 |  |
| Chattahoochee | пип |  |  |
| Havana H.S. | Tomormorn | [1006 |  |
| Midway Jamieson | (1) | ח1mmole |  |
|  | W010 | [10] |  |
| Quincy Elementary |  | ¢ |  |
| Greensboro <br> Concord <br> Havana Elementary | प-70 | 7170 |  |
|  | (1171111111 | 1717 |  |
|  |  | 717] |  |
| Flat Creek Gretra Mt. Pleasant Edwards Crossroads | (19mmin |  |  |
|  | - |  |  |
|  | (171) |  |  |
|  | पापापापापापय |  |  |
|  | 9191MM |  |  |
|  |  |  |  |
| Hardaway | Whllime |  |  |
| Providence Federal Roads |  |  |  |
|  | (1) |  |  |
| Federal Roads <br> Hope well | सापापापाएक |  |  |
| Sycamore |  |  |  |
| Sawdust | पापापापय |  |  |
| Glory | (1) |  |  |
| Hammock Creen | к |  |  |

$$
\text { Fig. } 11
$$

School Building Scores
fit for school purposes. This leaves only four schools that approach fairly well the standards for modern school buildings, and even with these four a number of improvements are urgently needed.

In nearly every case where the school made a low score, the consolidation of that school with others has been advised, and such action is being considered. It would be extremely unwise to expend money for repairs or reconstruction before the whole matter of consolidation is investigated and decision made for or against that movement.

Figure 12, page 91, shows percentages that average scores of Gadsden County schools, on certain essential points, are of standard scores on these same points. It will be observed that while the scores on some items are fairly high that on others the percentage is very low. The scores on items under "The Building in General" and under "The Grounds" are fairly, satisfactory, but under "The Classroom," "Other Rooms, Etc.," and "General Service Equipment,'" many important items make very low scores.

There is perhaps no more important one item in all school planning than that of the proper amount and proper source of light. All who have made a study of the subject advise that the light should fall over the left shoulders of pupils, and that the glass area of windows should be not less than one-fifth of the floor area of a given room. In the matter of window placement we find the schools of the county make a score of only thirty-five per cent, and in proper amount of glass area sixty-six per cent. In many cases the windows are placed not only on three or four sides of the room, thus causing confusing crosslights, but so far below the ceiling as to allow an insufficient amount of light to enter the building. Of the twenty-three buildings scored, only five had unilateral lighting, and in some of these there was either not a sufficient amount of glass area or the windows were placed too far to the front.

Figure 12 shows that in the matter of window shades the score is only about forty per cent. A number of schools visited by the survey staff had either no shades or an insufficient number that were in bad condition. In some of the larger schools little attention seemed to have been paid to the proper placing and adjustment of window shades.

Color schemes for wall and ceiling score only twenty-five per cent, and interior decoration a like amount. A dingy, unattractive schoolroom has, no doubt, much to do with causing children to dislike school, and the desire to leave at the very earliest opportunity.

Few schools of Gadsden County have cloakrooms, closets, fuel rooms, or storerooms, and libraries are found in only a few of the larger schools. A sufficient number of patent single or double desks has been provided in almost every school, but in some the old "homemade" desk is still to be found. In the matter of placement of desks; much improvement could be made. Nothing creates the impression of disorder in a school room more quickly than the lack of proper placement of the furniture, yet in many of the schools of the county little or no effort seems to have been made to secure an harmonious
and orderly effect. On account of the poor lighting or for the sake of securing a lounging place against the walls, pupils move their desks to the sides of the room, leaving in some cases, a very wide aisle down the center. The desks should be securely fastened to the floor after having been arranged symmetrically.

In almost all the schools heat is secured by means of stoves, and wood is used for fuel. The heat is unevenly distributed and there is a tendency on the part of the children to huddle together near the stove on cold days. Cases of actual suffering from the cold were observed in some of the schools, and the disorder attendant upon the huddling of pupils near the stove made teaching almost impossible. Jacketed stoves, properly placed, would do much to relieve the poor heating condition in some of the schools.

The problem of facilities for drinking and washing is a serious one in some of the schools visited. Water is in some cases brought long distances from a so-called spring, which in reality is little more than a mudhole, and the common drinking dipper is still in use in some schools. In cases where the teachers reported that individual drinking cups were used, very poor arrangements were made to keep them in a sanitary condition. In a number of cases water is brought from the open well of a neighboring farmhouse, and it is feared that the well is in some cases located dangerously near horse lots and stables.

The matter of toilets is always a serious one for schools, and Gadsden County has her share of such problems. Efforts have been made to conform to the requirements of the State Board of Health in the construction of out-door toilets, but much yet remains to be done. In eight schools of the county no toilets are provided for boys, and in four schools even the girls have no toilet facilities. In the small schools and even in some of the larger ones, conditions in the toilets lead one to believe that the principals and teachers make little effort to regulate in the matters of cleanliness and sanitation. The number of toilets in which obscene writing is found is appalling. The toilets should be inspected daily, and obscene writing removed as soon as it appears. What is better is to inculcate in the minds of the children thoughts of purity and abhorrence for the low and filthy to such an extent that they will not be tempted to write the obscene. Outdoor toilets should be securely locked at night and when school is not in session.


Fig. 12
Per Cent that Mean Scores are of Essentrial Standard Scores for Buildings, Grounds, and Equipment

## CHAPTER VIII.

Financing the Schools.
Reference to the map on page 12 will show that there are now twenty-one white schools in the county, and that sixteen others have been discontinued because of consolidation with other schools. One school, that at Hinson, was not open at the time of the survey, but will reopen next year.
Table XXXVII, page 94, shows the approximate areas in square miles from which each of these schools draws its pupils and secures its local revenue for school purposes. It will be noted also that the assessed valuation for each district, the amount of local tax, the amount received from the county, the total amount of tax for school purposes, and the percentage the school tax is of the whole tax paid by an individual are found in this table. In the first column of Table XXXVII we find school districts varying in area from five square miles to forty-five square miles, and it is a matter of interest to note that the smaller units are those not having been organized as special tax districts. The assessed valuations are of course variable in amounts, but seem to be comparatively uniform throughout the county. Only one one-teacher school, that at Hopewell, is in a special tax district, but of the fourteen schools in special tax districts eight are levying the maximum of ten mills allowed by law.

Under the head of "Receipts from County" it may be well to state that the County Board attempts to distribute the funds at its disposal equally according to the needs of the various schools. The funds distributed by the Board are received from a county school tax, from the county's share of the State one mill tax and the interest on the State school fund both distributed to the counties upon the basis of average attendance of pupils. The "total receipts" for a given district consist of the local tax, if any, plus the amount appropriated by the county.

The last column of Table XXXVII shows the percentage the school tax of a given district is of the total tax in that district. It will be noted that the lowest percentage is 32 and the highest 57 . This percentage varies even in districts voting the full ten mill tax for the reason that varying amounts are necessary to retire issues of school bonds voted by the districts.

It may be of interest at this point to call attention to the items of taxation, State, county and school district, required or allowed in Florida. These items do not include city or municipal taxes.

| State Tax | $\begin{aligned} & \text { Mills } \\ & \text { on Dol. } \end{aligned}$ | county Tax | Mills on Dol. |
| :---: | :---: | :---: | :---: |
| General revenue | 3.5 | (ieneral school | 10.0 |
| State School tax. | 1.0 | Roads and bridges. | 5.5 |
| Pensions | 3.0 | Fine and forfeiture. | 3.5 |
| Board of Health | . 5 | Publicity | 1.5 |
| Federal Aid for Roads. | 1.0 | Bonds (Court Hous |  |
| Prisons | . 25 | etc.) | 1.5 |
| Tick Eradication | . 5 | General revenue | 2.0 |
| Free Text books. | . 75 |  |  |
|  |  | Total | . 24.0 |

## Total

10.50

Table XXXVIII, page 95 , shows expenditures for teachers' salaries and for other purposes, enrollment and average daily attendance of pupils in the white schools of the County, and the expenditure per pupil in average daily attendance computed upon the basis of the school year and also reduced to cost per day. The item of "teachers' salaries" needs no comment at this place, but it should be explained that "other expenses" includes equipment, furniture, janitorial service, supplies, fuel, cost of transporting pupils, etc. Enrollment and average daily attendance are placed in parallel columns, and it may be noted that the percentage of attendance varies from 50 at Midway to 91 at Hopewell. The cost per pupil in average daily attendance is here confined to the item of "instruction" alone for the reason that this item of cost was practically the only one in a number of schools, and it was thought best to have comparative costs based upon the same items. Again the varying lengths of school terms from six months to nine months made the reduction of costs to a daily basis fairer to all pupils being considered.

It will be noted by reference to the last column of Table XXXVIII that the daily cost per pupil in average daily attendance varies from eleven cents in the school at Federal Roads to as high as thirty-six cents at Gretna. In the larger schools it is as low as eighteen cents at Havana and as high as twenty-three at Quincy.

The following conclusions and recommendations are appropriate at this place :

1. Not enough money is being received for school purposes upon the present assessed valuation of $\$ 4,646,417$ for the nearly 300,000 acres of land and other tangible wealth of Gadsden County.
2. The varying sizes of special tax districts and the inequality of distribution of values in these districts makes equality of opportunity for the boys and girls of the county impossible unless the county can furnish more funds to supplement district funds.
3. The present special tax districts should be abolished, and one district made up of the entire county should be formed.
4. All taxable property should be assessed at a uniform valuation of not less than 50 per cent of its actual value.
5. The special tax district made up of the entire county should vote the maximum millage for school purposes, and the funds so secured should be administered in such a way as to give equality of opportunity to every boy and girl.

Figure 13, page 96, shows how each dollar in taxes paid by a citizen in a special tax district levying the maximum millage and retiring bonds for construction of school buildings is distributed.
area. Valitation, special tax millage and income gadsiden cointy, florida. schools.


[^10]TABLE XXXVIII.
Expenditures for Teachers' Salaries, Etc., Enrollment, Average
Daily Attendance and Cost of Instruction Per Pupil in Average Daily Attendance Gadsden Co. Schools.

| Schools |  |  | $\begin{aligned} & \text { \# } \\ & \text { D } \\ & \text { E } \\ & \text { O} \\ & \text { 漛 } \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Crossroads | \$ 360 | \$ 2 | 21 | 14 | \$25.72 | 21c |
| Edwards | 360 | 2 | 25 | 17 | 21.20 | 18c |
| Flat Creek | 420 | 2 | 32 | 21 | 20.00 | 16 c |
| Hammock Creek | 385 | 2 | 22 | 15 | 25.67 | 21c |
| Pine Grove. . | 360 | 2 | 22 | 15 | 24.00 | 20c |
| Hopewell | 420 | 140 | 11 | 10 | 42.00 | 30c |
| Jamieson | 360 | 2 | 27 | 23 | 15.65 | 13c |
| Sawdust | 590 | 2 | 42 | 26 | 22.70 | 19c |
| Midway | 1,060 | 560 | 60 | 30 | 35.33 | 22c |
| Hardaway | 1,280 | 500 | 71 | 57 | 22.45 | 14c |
| Glory | 880 | 2 | 47 | 31 | 28.40 | 24c |
| Federal Roads. | 1,110 | 260 | 90 | 65 | 17.10 | 11c |
| Sycamore | 1,470 | 50 | 115 | 77 | 19.10 | 14c |
| Providence | 960 | 30 | 59 | 45 | 21.33 | 18c |
| Gretna | 2,010 | 200 | 52 | 35 | 57.43 | 36c |
| Mt. Pleasant | 3,660 | 930 | 159 | 127 | 28.80 | 18c |
| Concord | 3,260 | 100 | 146 | 121 | 26.94 | 17c |
| Chattahoochee | 7,540 | 650 | 352 | 241 | 31.29 | 19 c |
| Greensboro | 7,145 | 800 | 355 | 239 | 29.90 | 19c |
| Havana | 6,798 | 3,000 | 325 | 236 | 28.80 | 18c |
| Quincy ....... | 26,000 | 5,000 | 750 | 620 | 41.93 | 23c |



## CHAPTER IX.

## A Proposed Plan of Consolidation of Schools.

Reference to the map on page 12, will show a great number of discontinued one-teacher schools. In 1904 there were thirty-five white schools in Gadsden County, and in 1925 this number had been reduced to twenty-two. This reduction in the number of schools is not due to a decreased school enrollment, as will be shown by Table XXXVIII, but is a result of consolidation of small schools to form larger ones.

## TABLE XXXIX.

The Number of Schools and School Enrollment, Gadsden County'. 1903 to 1925.

| Year | No. Schools | Enrollme | Year | No. Schools | Enrollment |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1904. | 35 | 1.522 | 1915 | 29 | 1.841 |
| 1905 | 32 | 1,553 | 1916 | 28 | 2,090 |
| 1906 | 31 | 1.489 | 1917 | 28 | 2.082 |
| 1907. | 30 | 1,569 | 1918 | 29 | 2.155 |
| 1908 | 33 | 1.607 | 1919. | 29 | 2.099 |
| 1909 | 32 | 1.812 | 1920. | 29 | 2.342 |
| 1910 | 31 | 1.713 | 1921. | 30 | 2,463 |
| 1911. | 28 | 1.680 | 1922 | 30 | 2.611 |
| 1912. | 29 | 1.686 | 1923. | 28 | 2.748 |
| 1913. | 29 | 1.747 | 1924. | 27 | 2.672 |
| 1914. | 29 | 1.815 | 1925 | 2 | 2.797 |

It will be observed from Table XXXIX that the number of schools in 1924 was twenty-seven, but that in 1925 the number was twentytwo. This sudden drop in the number of schools at a time when the enrollment is increasing indicates an awakened sentiment on the part of Gadsden County citizens for consolidation of schools.

The educational survey carried on in the fall of 1925 has revealed some of the points of strength and weakness in the schools as they exist to-day, and it is the purpose of this chapter to point the way to a reorganization of the schools of the county to the end that every boy and every girl may have opportunity to receive a good elementary school education, and that high school training may be placed within easy reach of all.

It was pointed out in Chapter III that the qualifications, experience. and salaries of teachers in the one-teacher, two-teacher, and threeteacher schools are far from satisfactory ; and in Chapter IV the agegrade distribution and attendance of these same schools, and in lesser measure for all the schools, leaves much to be desired. To summarize the situation in the weaker schools of the county, we may say that the typical country child is taught:

1. Biemial Reports of State Superiutendent of I'ublic Instruction 1904-1925.
2. By a young woman eighteen to twenty-three years old, with little preparation for her work, and little knowledge of the fundamental requirements of her position;
3. For six months in the year;
4. In a building possessing none of the essentials and conveniences of a modern school structure.
5. The meager facts of the common school branches in a dry and uninteresting fashion.
6. With no supplies worthy of mention, and
7. Amid surroundings, sanitary and otherwise, not conducive to development of the best in his nature.

## The Proposed Plan

The people of the county realize that the children in some of the schools are not receiving that instruction and training which is the natural right of every boy and girl, and have already begun to consolidate schools, and thereby secure longer terms, better teachers, better supervision of instruction, more attractive surroundings, a wider and more enriched course of study, improved sanitary conditions, and a broader outlook upon life through a wider range of acquaintance and friendships than is possible in the little community schools.

The work of consolidation already begun should be carried on without delay until every boy and girl in the county shall be enrolled in a school equal to the best to be found in Florida or any other State.
Reference to the map on page 99 will show the scope of the proposed consolidation, and the extent of the territory to be embraced in each school district. Taken up one at a time, we advise the following:

1. Make Greensboro a great agricultural high school center by transporting to that school the children from Edwards, Providence, Sawdust, Pine Grove, Sycamore, and Flat Creek.
2. Encourage and help in every way possible the consolidated district made up of Glory, Mt. Pleasant, ILardaway, New Smyrna, and Old Mt. Pleasant, and develop in this agricultural center another strong high school.
3. Transport the children of Gretna either to Mt. Pleasant or Quincy.
4. Transport the children of Crossroads to Quincy, and continue the transportation of children from Shady Grove to Quincy.
5. Consolidate with Havana the schools now located at Jamieson and at Hinson.
6. Continue the school at Concord as it now is, but with the idea of transporting grades seven to ten to Havana at some time in the future should the enrollments in these grades not justify the expense of high school teachers.
7. Continue, for the present at least, the two-teacher school at Midway.

8. Unite Hammock Creek school with that at Federal Roads and erect at this place a modern building of three or four rooms.
9. Transport the children of Hopewell to a good school even though it may be an expensive undertaking.
10. Do not organize any more high schools for the present, but help pupils who finish the elementary grades to go to one of the high schools already in operation.
11. Set eight months as a minimum term for all of the abovementioned schools.
12. Set $\$ 800$ as the minimum salary for teachers of these schools, but provide that the operation of this minimum scale be not compulsory until July, 1930.
13. Require that after July 1, 1930, no new teacher be employed in any of these schools who shall not have received at least two years of training, above graduation from a high school, in an approved teacher's college or normal school.
14. Erect no new school building not planned by competent architects, and meeting in detail all the requirements of modern school structures.
The benefits to be derived from adoption of the proposed countywide plan of consolidation of schools cannot be questioned, but how can the increased costs incident to the operation of this plan be met?

In answering this question we shall first show just what the costs of operating the schools of each proposed group are under the present plan, and then indicate what the estimated costs will be under the proposed plan. Tables XL-XLIV show the present enrollments and present costs, school by school, for the various groups and the estimated costs under the proposed plan: In arriving at the number of teachers needed for any given group, the total number of pupils is clivided by 35 , it being assumed that no teacher ought to attempt to teach more than 35 or 40 pupils. It was estimated that a good school truck could be operated for $\$ 100$ per month, and that not more than one trip a day would be made by each truck. It was also estimated that 25 or 30 pupils would constitute a load for a truck. Teachers' salaries were placed on a flat rate of $\$ 100$ per month for a term of eight months except that in Group III, where a large number of high school teachers are employed, the.average was made $\$ 120$ per month for a nine months' term. No special provision was made for an increased amount for principals' salaries for the reason that the proposed minimum of $\$ 100$ per month for a term of eight months would not become operative as a requirement until July 1, 1930, and it was thought this matter would adjust itself before that time.

Under "other expenses, estimated" are cost of fuel, supplies, janitor service, etc.

Table XLIV gives total costs for all of the schools being considered both under the present plan and the proposed plan. It will be noted that the new plan will cost $\$ 24,726$ more than the old, and it is now necessary that we show where the funds are to be obtained for meeting this increased cost.

The assessed valuation of all property, personal and real, in Gadsden County for 1925 was $\$ 4,646,417$, and this amount is perhaps far below fifty per cent of the real values of the county. But let us assume that the present values are correct, and let us find a way to finance the schools without raising tax values a single dollar. The plan is as follows:

1. Abolish all special tax school districts in the county.
2. Form the whole of Gadsden County into one special tax district.
3. Vote the maximum of ten mills upon every dollar of the present county valuation.
4. Administer the funds so received and those received from the State one-mill tax and from the interest on the State School Fund, equitably, according to the needs of the individual schools.

Under this plan the income for the schools of Gadsden County. based upon 1925 valuations, would be as follows:

1. Receivable from County School Tax .......... \$ 46,464.17
2. Receivable from County Special Tax District.... 46,464.17
3. Received from State One-Mill Tax . .............. 13,723.70
4. Received from Interest on State School Fund .... 3,753.75
\$110,405.79
The above receipts do not, of course, include Smith-Hughes or other funds received by certain schools from the National Government, but under expenses mentioned elsewhere the costs of the County Superintendent's office were not considered, so these items will tend to balance each other, and we find our proposed plan can be financed, provided, the county can be organized as one special tax district and the maximum millage for such districts voted on all property, personal and real, in the county. If assessed values could be increased to a fifty per cent basis, the income for school purposes under the proposed plan would be approximately $\$ 183,000$ annually; and under the present plan of operation approximately $\$ 117,000$ could be raised.

## TABLE XL.

Enrollment and Costs Under the Costs Under the Proposed Plan Present Plan

| Group I | $\begin{aligned} & \text { Enroll. } \\ & \text { 1925-26 } \end{aligned}$ | $\begin{gathered} \text { Cost } \\ 1925-26 \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Greensboro | 355 | \$ $\mathbf{7 , 9 4 5}$ |  |  |
| Edwards | 25 | 362 |  |  |
| Providence | 59 | 990 |  |  |
| Pine Grove | 22 | 362 |  |  |
| Sawdust | 42 | 592 | 19 Teachers at $\$ 800$. | \$15,200 |
| Sycamore | 115 | 1,530 | 10 Trucks at \$800. | 8,000 |
| Flat Creck | 32 | 422 | Other expenses (est.) | 1,000 |
| Total | 650 | \$12,203 | Total | . $\$ 24,200$ |

TABLE XII.


TABLE XLII.

| Enrollment and Costs Under the Present Plan |  |  | Costs Under the Proposed Plan |  |
| :---: | :---: | :---: | :---: | :---: |
| Group III | Enroll. | Cost |  |  |
|  | 1925-26 | 1925-26 | 28 Teachers at \$1,080. | . \$30,240 |
| Quincy | 750 | \$31,000 | 1 Truck at \$900. | 900 |
| Crossroads | 21 | 362 | Other expenses (est.) | 2,000 |
| Total | 771 | \$31,362 | Total | \$33,140 |
| Enrollment and Costs Under the XLII-Con.) |  |  |  |  |
|  |  |  |  |  |
| Group IV | Plan |  | Costs Under the Proposed Plan |  |
|  | Enroll. | $\begin{gathered} \text { Cost } \\ 1925-26 \end{gathered}$ |  |  |
| Havana | 325 | \$ 7,098 | 10 Teachers at $\$ 800$. | . 8 8,000 |
| Hinson )* |  |  | 2 Trucks at \$800 | 1,600 |
| Jamieson | 27 | 362 | Other expenses (est.) | 500 |
| Total | 352 | \$ 7,460 | Total | 0,100 |


| Enrollment Present Plan |  |  | Costs Under the Proposed Plan |  |
| :---: | :---: | :---: | :---: | :---: |
| Group V | Enroll. | Cost |  |  |
|  | 1925-26 | 1925-26 | 3 Teachers at $\$ 800$. | 2,400 |
| Hammock Creek | 22 | \$ 387 | 1 Truck at $\$ 800$. | 800 |
| Federal Roads | 90 | 1,370 | Other expenses (est.) | 200 |
| Total | 112 | \$ 1.757 | Total |  |

TABLE XLIII.



[^11]
## TABLE XLIII- (Con.)



In the light of the above figures which are taken from the records for 1925 of the State Comptroller's office, and from the Report of the State Equalizer of Taxes for 1923-24, it is evident that Gadsden County is abundantly able to support her schools as is suggested in our proposed plan; and should the citizens and school officials of the county adopt this or some similar plan for equalizing opportunity for the boys and girls of the county, future generations will profit by the increased school advantages made possible by that act, and such a spirit of educated leadership and refinement will ensue as can never be measured by cost in dollars and cents.


BROWN SPRINGS NEGRO SCHOOL (Abandoned 1925)


GRETNA NEGRO SCHOOL
One of the four Julius Rosenwald schools inthe Colunty.


## $8905683098 ?$

## |||||||||||||||| b89056830987a




[^0]:    1. Sec. 15, p. 14, Comp. School Laws of Fla., 1925.
    2. Secs. 119-121, np. 43-45, Comp. School Laws of Fla., 1925.
    3. Sec. 198, p. 66, Comp. School Laws of Fla., 1925.
    4. Sec. 210, p. 72, Comp. School Laws of Fla., 1925.
[^1]:    * Tata for four suhenls missiug for firnt (irade

[^2]:    1. "Measuring Results of Instruction," ty T. K. Sisk, I’ublic School Survey of Oconee Co. S. C., June, 1923.
    2. Starch, Daniei, Educational Psychology, page 1.
    3. MrCall, Wm. A, "How to Measure in Education," pp. 3 and 4.
    4. Although intelligence tests are mentioned in the table, these will be treated in another chapter.
[^3]:    1. Haggerty, M. E. Educational Achievement, New York School Survey1922.
[^4]:    ${ }^{1}$ Quincy has mid-year promotions.
    ${ }^{2}$ Norms for November calculated from June norms.

[^5]:    1. McCall, Wm. A., "How to Measure in Education," page 75.
[^6]:    1. McCall, Wm. A., "How to Measure in Education," pp. 74-75.
[^7]:    ${ }^{1}$ About 14 points makes a year's difference in ability.
    ${ }^{2}$ Norm for higher divisions 66.6.

[^8]:    1. Pressey, Sidney L., Introduction to the Use of Standard Tests, Page 168.
    2. Starch, Daniel-Educational Psychology, Page 39.
[^9]:    *General report on School Buildings and Grounds of Delaware, Bulletin of Service Citizens of Delaware, Vol. 1, No. 3. pp. 195-196.

[^10]:    * Building burned. Pupils attended Havana for the year.

[^11]:    * Havana and Hinson combined for year 1925-192(f.

