

Thesis  
A:  
1928  
SRS

A SURVEY OF THE UNION FREE DISTRICT  
OF EBENEZER, NEW YORK  
by  
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I

**GENERAL STATEMENT**

## GENERAL STATEMENT

The school district of Ebenezer is the union free district, number one, of the township of West Seneca, Erie County, New York. The township is divided into nine school districts; six are common school districts and three are union free districts. West Seneca has no incorporated village. A study of the accompanying map, however, shows three settlements, each one located in one of the three union free districts. They are known as Ebenezer, located in District #1, Gardenville, located in district #2, and West Seneca located in district #3. The union schools of these three districts are located within the above mentioned centers of population, about two miles apart. Each of these schools have complete elementary and high school departments.

This study is concerned with the school district #1 in general and the free union school of Ebenezer in particular.

The settlement called Ebenezer is about three miles southeast of the City of Buffalo and may be reached by trolley car via Seneca Street or Via Clinton Street and Union Road. The community has a Post Office, a State Bank, several stores and public garages. The population consists largely of commuters, employed in Buffalo. This shows that the educational needs of the community are practically those of a large city.

In 1924, the district was re-organized as a union free district according to the laws of New York State. The district obtained permission to establish a high school department; a

freshman class consisting of five pupils was instructed that year by the supervising principal, in the basement of the school. The school has added since, one additional year of high school instruction each year, and offers now a four year academic course.

In 1926, the building was enlarged and some features essential to modern education were introduced. The school now has a gymnasium which can be used as an auditorium, an equipped shop for manual arts, and facilities for teaching a course in home-making. In September 1927, one year of kindergarten training was also added. A study of the score card of the school plant brings out the fact that building and equipment are satisfactory for the type of service given by the school.

In order to determine future educational needs of a community, one must make a comparative study of the population over a period of several years, and decide upon possible future increases by basing them on increases in the past. Population records for the district, of past years, were not available. It is, therefore, impossible to cover this particular phase of the survey.

Another index for future educational needs of a community is the percentage increase of enrolment over a period of years. Table #1 shows the enrolment over a period of five years and the percentages of increase.

TABLE # 1.

## ENROLMENT AND PERCENTAGE INCREASES FROM 1923 TO 1927.

<u>Year</u>	<u>Enrolment Ele. Sch.</u>	<u>High School</u>	<u>Total</u>	<u>Increase Ele. Sch.</u>	<u>High School</u>	<u>Total</u>
1923-24	270	-----	270	-----	-----	-----
1924-25	295	-----	295	9 %	-----	9 %
1925-26	301	43	344	2 %	-----	14.2%
1926-27	349	45	394	14 %	4 %	13. %
1927-28	340	60	406	-2.6%	25 %	2 %

If the figures in table # 1, are considered of value as an index to future educational needs of the community, the present school plant will be satisfactory as an elementary school for several years. As to the high school department, it is believed that the present service, if continued, will attract a number of pupils not exceeding the capacity of this department. A study of the holding power of the school seems to indicate that the present curriculum does not appeal to a large percentage of the children above the compulsory school age. A study of the ability to support education does not warrant what Dr. Strayer calls a "Comprehensive High School." Moreover, a study of the accompanying map shows three schools two miles apart, that struggle to support three independent high school departments. The only sensible thing to do is to pool their efforts for the support of one central high

school, a school that could be of service to a larger percentage of the population of the three districts. A perusal of article 6-C of the Educational Law of New York State indicates a very favorable attitude of the state toward such undertaking.

Map of the Town of West Seneca.



Buffalo

#9

Chicktown

Cayuga Creek

Buffalo Creek

Clinton St.

W.F.S. #2

Grandville

Clinton St.

#2

#8

Seneca St.

W.S.H.S. #3

Craymont Sub.D.

Center Ave.

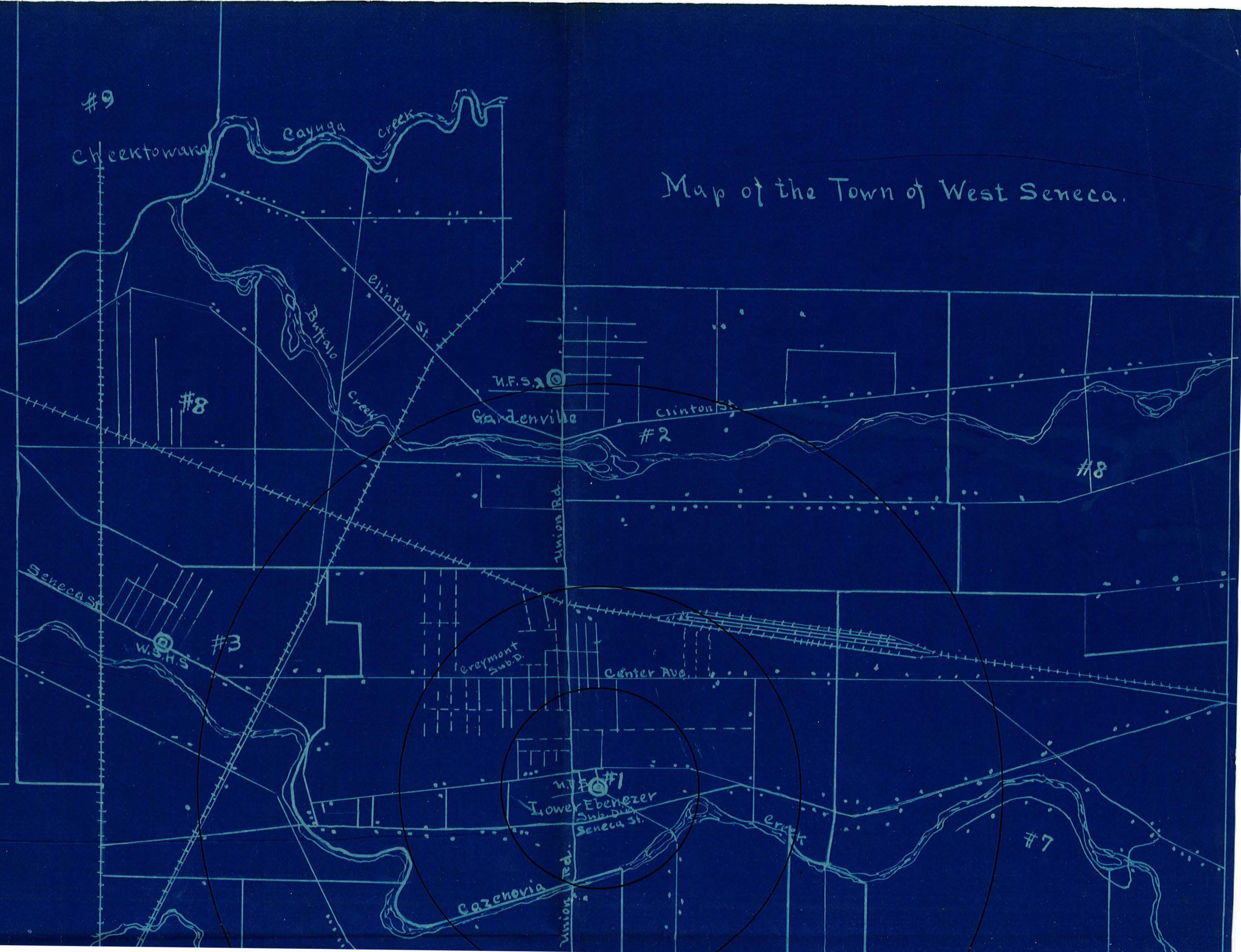
W.F.S. #1

Lower Ebenezer Sub.D. Seneca St.

Cazenovia

Creek

#7





Buffalo

Seneca St

W.S.H.S #3

Craymont Sub.D.

Center Ave.

W.P.O. #1  
Lower Ebenezer  
Sub.D.  
Seneca St.

Creek

#7

Cazenovia

Union Rd.

Lackawanna

#5

#4

#6

#8

East Hamburg

1 mile



II

SCHOOL CONTROL AND MANAGEMENT

## SCHOOL CONTROL AND MANAGEMENT

The effective organization of the school system in a community is possible only by creating the right kind of machinery for the control and management of the school, and by enabling those charged with the control and management to develop an efficient school system, without unnecessary limitations upon their power. Responsibility must be in conjunction with power to act. A community may have a poorer school system than it wants because it has set up the wrong kind of machinery.

Students of educational administration are agreed upon general principles on which the organization for the conduct of the public school should be based.

The elective system is recognized as the most acceptable in creating school boards or committees. Cubberly makes this statement: "In small cities, there is no question but that election at large by popular vote is the more desirable method, and even for large cities, experience seems to indicate that the results are about equally satisfactory." (Cubberly E.P. Public School Administration, p. 95.)

The number of members on the board should be small, five to seven. Only one member should usually be elected for a given year so as to provide a continuous board. A board of five or seven is now generally regarded as the most desirable size for all, but perhaps the very largest cities (Ibid.p.92) From three to five years would seem to be the most desirable length of term for school board membership. Where the board

consists of three or five, one should be elected each year, and for a three or five year term. In case of a board of seven members, the election of one, two, two, and two each succeeding year would seem most desirable. (Ibid. p.98).

It is accepted as a general principle that a school board should not be paid for its services.

The members should not only be honest and intelligent, but should have an active interest in public schools and a desire to improve their effectiveness. They must have vision. Successful business men usually make good board members.

There is little need for many standing committees. If a board is small, action can best be taken by the committee as a whole. If there must be committees, three on teachers, building, and finance are best.

The school board's function is legislative, not executive. Its work is to judge on proposals and to determine the general policy of the school system.

The board can best perform its duty to the school and the taxpayers by hiring an administrator who is a technically trained educational expert, and giving him full power to carry out the educational policies of the board, and holding him fully responsible for the results accomplished.

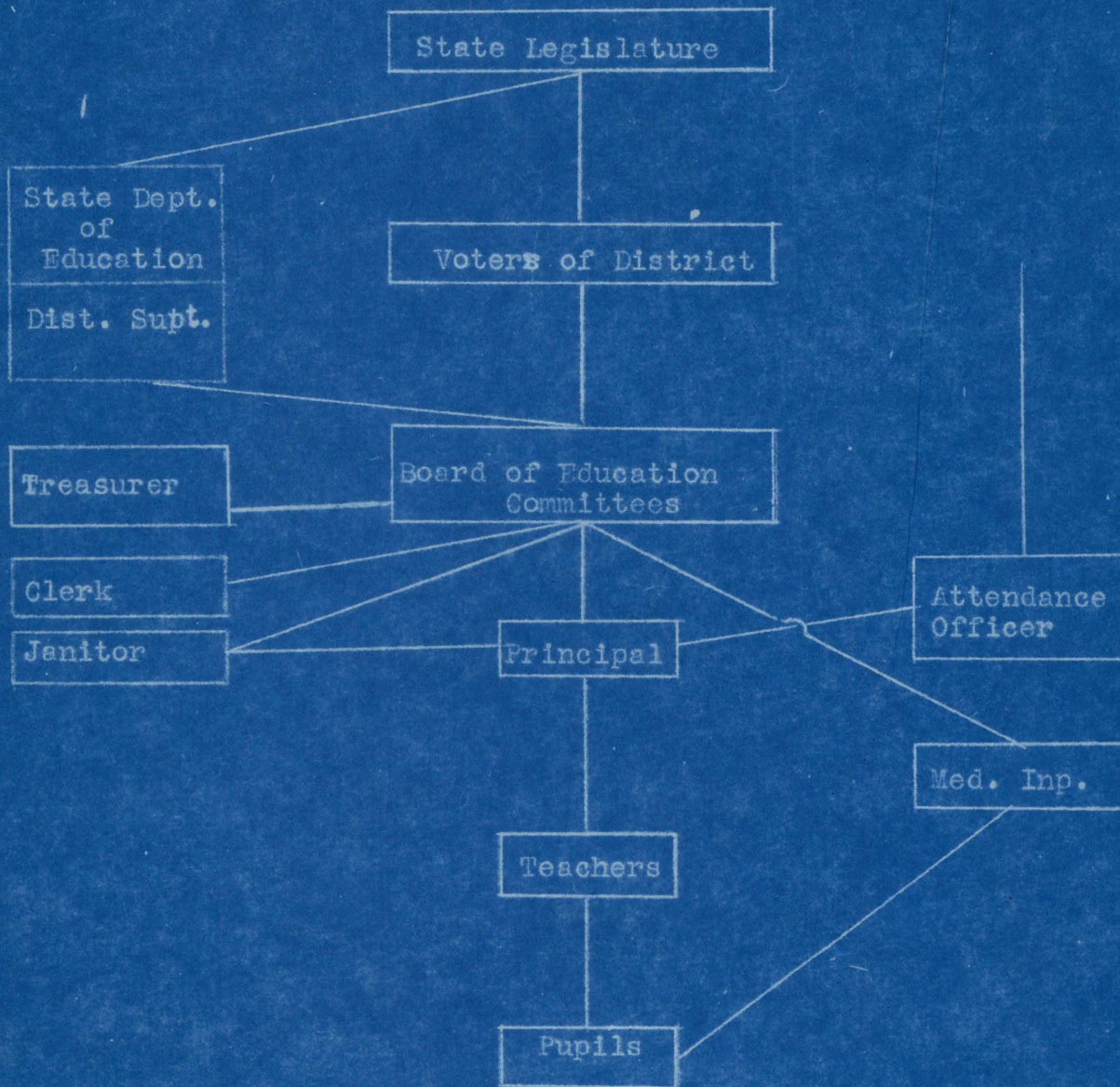
Ebenezer has a school board consisting of seven members elected by popular vote at the annual school election. The board is unpaid. Its members are business men. It has three standing committees, - building and ground, purchasing, and auditing. The board is financially independent. It votes

on the budget, levies the school tax, and hires the teachers on recommendation of the supervising principal. There seems to be little interference on the part of the board in strictly educational matters.

The first board was elected in 1924 when the district was changed from a common to a union free district. Three members were elected for three years, three for two years, and one for one year. After this all members are elected for a term of three years in the following order: one new member one year, three new members the next year, and three new members the third year.

As seen from the chart, the administrative organization is in the main a straight line organization. The straight line type of organization is considered best because it tends to fix responsibility.

Organization of the School System.



## SUMMARY

1. The right kind of machinery is necessary for the effective organization of a school system.
2. Organization should be based on accepted principles.
3. An elective system is recognized as the most satisfactory.
4. The number of members should be small. (3, 5, or 7.)
5. The term should be sufficiently long in order to build up a worthwhile educational policy.
6. Members should be honest and intelligent. The welfare of the children to be educated should be their greatest concern.
7. The functions of the board are legislative, not executive.
8. Executive power and responsibility should be delegated to a professional adviser, trained for that purpose.
9. A small board should act as a whole; standing committees are considered unnecessary.
10. The number of members of the board in Ebenezer seems large when compared with the size of the community. A board of five, one new member elected each year for a term of five years would be sufficient.
11. The board should continue to rely upon the supervising principal in all educational matters.
12. The community is to be commended for trying to build up its school system on accepted principles.

III

THE SCHOOL PLANT AND ITS EQUIPMENT



## THE SCHOOL PLANT AND ITS EQUIPMENT

New school functions demand modern school buildings and equipment. When the three R's were the only subjects taught in the public schools, the necessary equipment was simple. Now, the schoolwork has merely begun when the children have acquired knowledge in these fundamentals. Because of popular demand and legislative enactment, new objectives have been added. These, in turn, require a different type of school building and more equipment. Sound physiques and healthful habits of living are expected from school attendance. Well ventilated, properly heated and lighted classrooms equipped with desks and tables suited to the needs of growing children, rooms for health, and gymnasiums are essentials of a modern building. The building should be located on an adequate site, if playground activities are to be properly developed. According to Strayer and Engelhardt in "The Classroom Teacher", the minimum size for a site for an elementary school is three acres. High school sites should be still larger. Large plots are necessary in order to make future expansion possible. The purchase of large school sites when land is cheap requires less outlay than the purchase of additions to small plots after land has risen in value.

Worthy home membership, another objective of the modern school requires rooms and equipment essential in establishing high ideals in home-making.

Vocational efficiency is another educational objective. This means laboratories and shops with modern equipment. Such equipment is necessary if the child is to be given insight into occupational life.

The school must train the child for the worthy use of leisure time. In terms of school equipment, this means musical instruments, auditoriums with projecting and motion picture apparatus, a well stocked library suited to the needs of the children.

It is impossible to obtain a modern school plant by hit-or-miss methods. Modern school plants should be developed by methods similar to public utilities as gas, light and telephone companies which predict future demands by careful procedures. A school plant must possess certain characteristics if it is to meet modern standards. The Committee on School House Planning of the National Education Association (Report of Committee on School House Planning 1925, p.164) gives the following nine features:

1. Adaptation to educational needs
2. Safety
3. Healthfulness
4. Expansiveness
5. Flexibility
6. Convenience
7. Durability
8. Aesthetic fitness
9. Economy.

In order to find the degree to which the school building in Ebenezer meets the requirements of modern standards, the Strayer-Engelhardt Score Card was used. The basis for scoring

is one thousand points for a perfect building. Credit is allowed for items included on the score card, if it is considered that they are not needed in the community which the building to be scored serves. Experience resulting from applications of the score card, suggests the following classification of buildings:

Scores

- 900-1000 indicates a highly satisfactory degree of construction and equipment.
- 700- 900 is a fairly satisfactory rating. The score card should be studied in the light of its component parts. It may be raised by slight changes in the building.
- 600- 700 means considerable alterations in order to bring buildings to a satisfactory standard of efficiency.
- 500- 600 indicates that buildings should be abandoned for school purposes. Expenses for repairs would be excessive.

TABLE # 2.

## RESULTS OF THE SURVEY OF THE SCHOOL PLANT IN EBENEZER

<u>Scorer</u>	<u>Site</u>	<u>Building</u>	<u>Service System</u>	<u>Class Rooms</u>	<u>Special Rooms</u>	<u>Total</u>
I	105	134	256	276	98	869
II	95	128	260	247	108	838
III	105	136	257	279	103	880
Mean	102	133	258	267	103	862
Standard	125	165	280	290	140	1000
Deviation from Standard	18.4%	19%	8%	8%	26%	13.8%

The results <sup>of the survey</sup> of the school plant are given in table # 2 .

The plant was evaluated by three scorers. Their findings are tabulated under the main headings of the score card. According to table # 2 the school plant in Ebenezer is eighty-six percent perfect. As was stated before, seventy to ninety percent is a fairly satisfactory rating. If it is considered that, this school is supported by a rather small community and that it was scored with reference to a perfect city school plant, the school in Ebenezer may be judged as highly satisfactory. It must also be mentioned that comparatively little credit was given items on the score card which the plant did not possess, i.e. items which are considered not needed in the community in question. An average of fifty points only was added by the scorers for such items.

When a plant falls within the scores seven hundred to nine hundred, the score card should be studied in the light of its component parts. The greatest deviations from the standards are found in the items of "Special Rooms," "Building", and "Site".

The heading of special rooms includes three main types with several sub-types each.

A. Large Rooms for General Use

1. Play Room
2. Auditorium
3. Library
4. Gymnasium
5. Swimming Pool
6. Lunch Room

Average	Score	Standard
45		65
	Deviation	
	30%	

B. Rooms for School Officials		Score	
1. Officers'	Average	Standard	
2. Teachers'	24	35	
3. Medical Suite		Deviation	
4. Janitors'		30%	
C. Other Special Service Rooms		Score	
1. Household Arts	Average	Standard	
2. Industrial Arts	34	40	
3. General Science and Drawing		Deviation	
4. Store Rooms		15%	

It is evident that the greatest deviation is shown in the items A and B. When these items are further analyzed, it is found that playroom, library, and lunch room deviate about fifty percent from the standard, largely because of small size. These rooms could be used as store rooms. The gymnasium deviates about thirty percent from the standard, due to the fact that the water seeps through the floor. This has caused the wood to warp. This deficiency could be corrected by raising the floor about two feet. When analyzing item B, it is found that the office is too small and poorly located. The school has a room for medical purposes, which is, however, poorly equipped particularly for adolescent girls.

An examination of building and site revealed these deficiencies: The building lacks aesthetic balance, the entrances are too small, the stairways are somewhat narrow, the corridors have projections, the general color scheme is unpleasant. The site is too small. The drainage is not very satisfactory.

## SUMMARY

1. Modern civilization makes more and more demands on public education. Modern education in turn requires better school plants and equipment.
2. The school plant in Ebenezer rates 862 or about 86% perfect when scored by the use of the "Strayer-Engelhardt Score Card.
3. A score between 700 and 900 means that a school plant is fairly satisfactory when compared with an ideal city school plant.
4. Special rooms, building, and site were found to show the greatest deviations from standards.
5. The score could be raised by slight changes.
6. The scorers agreed that the plant is satisfactory as an elementary school in connection with a junior high school.

IV

SCHOOL CENSUS AND ATTENDANCE



## SCHOOL CENSUS AND ATTENDANCE

Compulsory education and attendance have for their purpose the giving to each child a proper educational and vocational equipment on the one side and of safeguarding and uplifting the state on the other. In order to conserve and to develop the intellectual resources of the state, a well planned system of recording the age groups affected by the compulsory attendance laws is necessary. Every state in the Union has passed compulsory school attendance laws, requiring all children to attend school full time to the age of fourteen years. The chief difficulty is not the lack of laws, but the fact that existing laws are not enforced. Non-attendance is still considered the weakest spot in the school system.

The obligation of public school authorities in the education of all children of school age is clearly defined by law. In New York State children must attend school the entire time school is in session between the ages of seven and sixteen, unless they are physically or mentally incompetent; or if, between fourteen and sixteen years of age, regularly employed under employment certificates issued by the local superintendent. This applies to cities of four thousand five hundred and more population having a superintendent. In districts under four thousand five hundred population, the compulsory school age is from eight to sixteen. Ebenezer comes under this provision.

According to the educational law, paragraph six hundred fifty-two, a school census must be taken in duplicate on the thirtieth day of August each year in all school districts.

One must be filed with the principal, the other with the district superintendent. The census includes the names of all children between the ages of five to eighteen years, day and year of birth, residence by street and number, and names of parents or guardians. A school census should include all children from birth to a period beyond compulsory age. This provision goes into effect in New York State in 1928.

The school census must be accurate because of the important bearing it has on many other phases of school development, such as:

1. Reduction of retardation due to late entrance into school.
2. Elimination of indifference on part of school children fostered by the hope of an early evasion of the law.
3. The diminution of early withdrawals as occur when age records are not properly kept and duly authenticated.
4. The combating of the industrial exploitation of children by unwise parents.
5. The creation of a minimum/<sup>of</sup>class disorganization due to late entrance.
6. The lightening of teachers' burdens which are otherwise greatly increased when the above-mentioned conditions prevail.

(Strayer and Engelhardt "The Classroom Teacher" p.279)

To provide for all children of the compulsory school age an enumerating sheet for recording school census data, is of great importance.

It should record for each child

1. Full name
2. Date of birth
3. Sex
4. Birthplace of child and father
5. Names of father and mother
6. Residence
7. School which the child attends, and all facts of employment if the child is not attending school.
8. If the child is not attending school because he or she is defective, this fact should be recorded.
9. The date of birth of each child should be verified by some authentic documentary evidence.

Only enumerators who are accurate and highly interested in educational progress should be permitted to do census work. A permanent continuing census record for each pupil should be kept in the superintendent's office. The facts from the enumerating sheet should be recorded on a permanent school census card, and so arranged as to permit a permanent census record of every child for the entire period of his life. This would assure the school system that every child is complying every year with state regulations. Retardation due to absence or late entrance would be reduced, and teachers would be relieved of many disciplinary problems due to late entrance, traceable to an inadequate census system. (Strayer and Engelhardt "The Classroom Teacher" pp.273-278)

In Ebenezer, the school census is taken at the prescribed time in accordance with the state law. In 1927, the principal of the school was hired to do the census work. The census list consists of several sheets of stationery of the Board of Education, fastened together. It is made out in duplicate and contains: name of child, date of birth, age of child, name of father or guardian, and residence.

In September, the registration of the school is checked against the list by the supervising principal and the attendance officer. The school board does not employ an attendance officer of its own. This responsibility rests with the Town Board of West Seneca, who hires an officer for the school districts of the town. If the duty of the officer is performed efficiently, this practice may be considered satisfactory, since it saves the school board this expense. Such practice, however, tends to divide responsibility.

The degree to which compulsory attendance is enforced may be judged to some extent by a comparison of enrolment and average daily attendance. School attendance for the United States was 78.8% of the total school enrolment in 1924.

(N.E.A. Research Bulletin, Vol. IV, p. 205, September 1926)

According to table # 3 Ebenezer has an average attendance of eighty-one percent for the school years 1924 to 1927. This is slightly higher than the average for the United States in 1924. The average attendance for the United States has steadily increased since 1880. The above mentioned bulletin gives these figures:

1880	.....	62.3%	1910	.....	72.0%
1890	.....	64.1%	1920	.....	74.8%
1900	.....	68.6%	1924	.....	78.8%

Another way of judging the degree to which attendance laws are enforced is to compare the census list of a given year with the number of children enrolled in that year. According to the census list, Ebenezer has four hundred eighty-nine children between the ages of five and eighteen years in 1927. In September

1927, four hundred six or eighty-nine percent of the children on the census list were registered in the school. This seems a reasonable high percentage when it is considered that according to the attendance law of New York State, the compulsory age is eight to sixteen for districts under four thousand five hundred population, while children between the ages of five and eighteen are on the census list.

This taken as an index would indicate fairly satisfactory enforcement of the attendance laws.

TABLE # 3.

ENROLMENT COMPARED WITH AVERAGE DAILY ATTENDANCE

Year	Enrolment	Average Daily Attendance	Percentage Average Daily Attendance is of Enrolment.
1924-25	295	256	80%
1925-26	344	286	83%
1926-27	394	311	80%
		Mean	81%

## SUMMARY

1. The school census is taken in accordance with the state law.
2. Hiring the principal or one interested in educational progress, to take the census, is a commendable practice.
3. A fair percentage of average daily attendance and a high percentage of registration indicate satisfactory enforcement of the attendance laws.
4. Modern methods and records are recommended. The census list should contain more information. Continuing individual records should be kept on file.
5. This study could have been improved if the census lists of former years had been available. Accurate and complete records are necessary for comparative studies.

AGE AND GRADE RELATIONSHIPS

## AGE AND GRADE RELATIONSHIPS

In March 1927, the union school in Ebenezer, New York had three hundred thirty-nine pupils enrolled in the grades one to eight. These pupils were between the ages of four years and eighteen years. There were one hundred sixty-seven boys and one hundred seventy-two girls in these grades.

In the school year 1926-27, this school afforded three years of high school education. There were enrolled forty-five pupils; nineteen were boys and twenty-six were girls. The distribution of all pupils according to grades is given in table # 4.

The efficiency of a school system depends to an extent upon the degree to which children are brought to school and the degree to which they are progressed through the school. If a pupil enters at the proper age (five years, nine months to seven years, three months for the first grade) he will be of normal age for his respective grades, if he progresses at the rate of one grade a year. If he enters later than normal age or if he repeats one grade, he becomes over-age unless he skips one or more grades.



TABLE # 4.

## DISTRIBUTION OF PUPILS ACCORDING TO GRADES

<u>Grades</u>	<u>Boys</u>	<u>Girls</u>	<u>Total</u>
I	19	33	52
II	21	27	48
III	20	15	35
IV	16	21	37
V	31	17	48
VI	20	22	42
VII	23	20	43
VIII	<u>17</u>	<u>17</u>	<u>34</u>
TOTAL	167	172	339

## DISTRIBUTION OF PUPILS IN HIGH SCHOOL

<u>Year</u>	<u>Boys</u>	<u>Girls</u>	<u>Total</u>
I	7	14	21
II	9	10	19
III	<u>3</u>	<u>2</u>	<u>5</u>
TOTAL	19	26	45
TOTAL ENROLLMENT	186	198	384

TABLE #5.

## TABLE SHOWING AGE CONDITION IN GRADES I - XI

Grades	<u>Percent Over Age</u>			<u>Percent Normal Age</u>			<u>Percent Under Age</u>		
	<u>Boys</u>	<u>Girls</u>	<u>Total</u>	<u>Boys</u>	<u>Girls</u>	<u>Total</u>	<u>Boys</u>	<u>Girls</u>	<u>Total</u>
I	37	21	27	53	61	58	11	18	15
II	33	33	33	67	67	67			
III	35	20	28	50	73	61	15	7	11
IV	62	43	52	38	38	38		19	10
V	61	59	60	39	41	40			
VI	55	41	48	45	59	52			
VII	67	55	56	39	45	42	4		2
VIII	65	59	62	29	35	32	6	6	6
TOTAL	51	40	45	45	53	49	4	7	6
IX	57	36	43	29	57	48	14	7	9
X	22	10	16	67	80	74	11	10	10
XI				100	100	100			
TOTAL	31	23	26	58	70	64	11	7	9

Total Percentage of Over Age, Under Age and Normal Age Pupils in Grades and High School Combined.

<u>Over Age</u>			<u>Normal Age</u>			<u>Under Age</u>		
<u>Boys</u>	<u>Girls</u>	<u>Total</u>	<u>Boys</u>	<u>Girls</u>	<u>Total</u>	<u>Boys</u>	<u>Girls</u>	<u>Total</u>
42	31.5	35.5	52	61	56.5	7.5	7	7

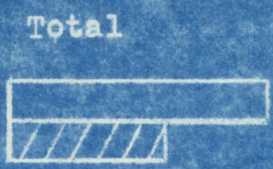
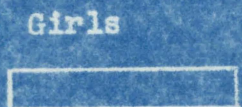
TABLE # 6.

PERCENTAGE OF OVER AGE, NORMAL AGE AND  
UNDER AGE PUPILS IN EBENEZER COMPARED  
WITH SIMILAR PERCENTAGES IN OTHER PLACES.

Town	<u>Over Age Percentage</u>	<u>Normal Age Percentage</u>	<u>Under Age Percentage</u>
Ebenezer, N.Y.	35.5	56.5	7.5
Springville, N.Y.	25	45	30
Amsterdam, N.Y.	49	23	28
Montclair, N.J.	22	62	16
Niagara, N.Y.	31	33	36
Elmira, N.Y.	38	28	34
Canton, Ohio	28	38	34
Dansville, N.Y.	28	34	38
Watertown, N.Y.	25	32	43
Rockford, Ill.	28	40	32
Forty-Two Cities	21	67	12

Chart # 2.

Percentage of Over-Age, Under-Age, and Normal-Age.



Ebenezer

A legend bar consisting of a solid top half and a hatched bottom half.

42 cities

Table # 6 indicates that Ebenezer has a fair percentage of normal age children in its school. The over age percentage, however, is high when compared with the other places. The under age percentage is low except in the first grade. The higher percentage in the first grade is due to the fact that children are sent to the first grade when they reach the age of five years. They seem to lose, however, this advantage as they go through the grades. In order to correct this condition, the school board has agreed to provide one year of kindergarten training beginning September 1927. The school must take care of children when sent by the parents provided they are five years old.

A study of table # 5 indicates that there is a lack of opportunity for the rapid advancement of the brighter children. It seems to be the policy of the school to hold the pupils back rather than to push them ahead. Opportunity for rapid progress should be given. Although it is impossible to have parallel classes in a school of this type, the pupils could be divided into homogenous groups which could be advanced according to abilities. It has also been found that the percentage of normal age girls is higher than that of normal age boys. The difference is greater for the high school pupils than for the pupils in the grades. The curriculum is perhaps, better suited for the girls than for the boys. An age grade study will not reveal all facts. It will throw light upon certain features; indicating that somewhere, readjustment is necessary.

TABLE # 7.

EXTENT OF OVERAGENESS AND UNDERAGENESS  
IN ELEMENTARY AND HIGH SCHOOL.

Yrs.	<u>Elementary School</u>						<u>High School</u>					
	Over Age			Under Age			Over Age			Under Age		
	<u>B</u>	<u>G</u>	<u>T</u>	<u>B</u>	<u>G</u>	<u>T</u>	<u>B</u>	<u>G</u>	<u>T</u>	<u>B</u>	<u>G</u>	<u>T</u>
$\frac{1}{2}$	25	30	55	7	10	17	4	3	7	2	2	4
1	18	16	34		2	2						
$1\frac{1}{2}$	14	14	28									
2	15	5	20									
$2\frac{1}{2}$	4	2	6									
3	4	1	5									
$3\frac{1}{2}$	2	0	2									
4	2	0	2									
$4\frac{1}{2}$	0	0	0									
5	1	0	1									
TOTAL	85	68	153	7	12	19	4	3	7	2	2	4

According to table # 7 the extent of overageness in the elementary school is from  $\frac{1}{2}$  to 5 years. Forty-two percent are more than one year over age for their respective grades. Underageness does not exceed one year. In the high school are no pupils found who are more than one-half year over or under age.

TABLE # 8.

## DISTRIBUTION OF MENTAL AGES

Grades	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	Total
Mental Ages												
5 years												2
6 "												22
7 "												27
8 "												30
9 "												30
10 "												33
11 "												33
12 "												39
13 "												37
14 "												29
15 "												12
16 "												19
17 "												13
18 "												11
TOTAL	34	44	35	35	46	37	41	30	16	16	3	337

Values in boxes indicate the number of pupils of standard mental age for the different grades. It is assumed that the normal mental age for a child six years old, chronologically, is six years. The normal mental age for the first grade then is six years, if six years is the chronological age at which children are admitted into the first grade.

TABLE # 9.

## # 8 SUMMARIZED

<u>Below Standard</u>	<u>Pupils</u>	<u>Percent</u>	<u>Total Percent</u>
One Year	17	5	
Two Years	4	2	7
<u>Above Standard</u>			
One Year	122	36	
Two Years	58	17	
Three Years	34	10	
Four Years	13	4	
Five Years	9	3	
Six Years	2	1	71
<u>Normal</u>	78	22	22

Table # 8 shows the distribution of the pupils according to their mental ages. Seven percent only are below standard for their grades, while seventy-one percent are above standard. One might draw the superficial conclusion from this table that the children in this school represent a group of high intelligence, and that the school is holding its pupils back to a still greater extent than was shown in another part of this study. That such conclusions would be unreasonable is found when we compare the mental ages with the chronological ages in the several grades. Tables # 8 and # 10 show that in grades where the mental ages are comparatively high, the percentage of overageness is also high. This indicates that a comparatively high mental age is due to a rather high chronological



Chart # 3.

Distribution of Mental Ages.



Below Standard.



Normal.



Above Standard.

age in the respective grades. It would furthermore indicate that the median intelligence quotients of the respective grades do, most likely, not exceed standards for these grades.

TABLE # 10.

## CHRONOLOGICAL AGE CONDITIONS IN GRADES I TO XI

<u>Grades</u>	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	Total
Percentage												
Under Age 15	0	11	10	0	0	2	6	9	10	0		7
Normal												
Age 57	67	61	38	40	52	42	32	48	74	100		56.5
Over Age 27	33	28	52	60	48	56	62	43	16	0		35.5

TABLE # 11.

## MENTAL AND CHRONOLOGICAL AGE CONDITIONS IN GRADES IV TO VIII

<u>Grade</u>	<u>Chronological Age High in relation to M.A.</u>	<u>Mental Age High in relation to Ch.A.</u>	<u>Number of Pupils</u>
IV	21 or 60%	5 or 14%	35
V	17 or 38%	11 or 24%	46
VI	12 or 32%	16 or 43%	37
VII	19 or 46%	11 or 27%	41
VIII	7 or 23%	20 or 66%	30
Average	40%	35%	

Forty percent of the pupils in these grades are at least eight months older chronologically than mentally.

Thirty-five percent of the pupils are mentally advanced and about twenty-five percent of the pupils have a mental age equal to their chronological age. Their intelligence quotient would be one hundred percent.

TABLE # 12.

## COEFFICIENTS OF CORRELATION BETWEEN CHRONOLOGICAL AGES AND MENTAL AGES IN GRADES IV TO VIII.

<u>Grade</u>	<u>Correlation</u>	<u>Number of Pupils</u>
IV	-0.444	35
V	-0.176	46
VI	-0.107	37
VII	-0.209	40
VIII	+0.291	30

A study of mental ages and chronological ages of the pupils in the grades IV to VIII indicates that the younger children are the brighter pupils in their respective grades. The coefficients of correlation are given in table # 12 .

In all grades except grade VIII, a negative correlation was found. Negative correlation was greatest in grade IV. It was also found that negative correlation is greatest in the extreme cases; the oldest pupils in a given grade tend to be lowest in mentality. In grade VIII, the older pupils tend to be the brighter ones.

Inspection of intelligence quotients would not necessarily reveal these conditions. A pupil having a comparatively high mental age for instance, for a given grade would receive a low I.Q. in case his chronological age were also high. It would not, however, prove that his mentality is low when compared with other pupils of the same grade.

From this study, the conclusion might be made, that pupils should not be held back because of their low chronological age only.

TABLE # 13.

## GRADE LOCATION OF ALL THIRTEEN YEAR OLD BOYS AND GIRLS.

<u>Grade</u>	<u>Boys</u>		<u>Girls</u>		<u>Total</u>	
	<u>Number</u>	<u>Percentage</u>	<u>Number</u>	<u>Percentage</u>	<u>Number</u>	<u>Percentage</u>
IV	1	8	1	9	2	8
V	2	15	2	18	4	16.6
VI	3	24	3	27	6	24.6
VII	5	38	5	45	10	42
VIII	<u>2</u>	<u>15</u>	—	—	<u>2</u>	<u>8</u>
Total	13	100	11	100	24	100

TABLE # 14.

## GRADE LOCATION OF ALL TWELVE YEAR OLD BOYS AND GIRLS.

<u>Grade</u>	<u>Boys</u>		<u>Girls</u>		<u>Total</u>	
	<u>Number</u>	<u>Percentage</u>	<u>Number</u>	<u>Percentage</u>	<u>Number</u>	<u>Percentage</u>
III	1	4	0		1	2
IV	0		0		0	
V	8	29.6	3	16	11	24
VI	9	32.8	9	47	18	40
VII	8	29.6	6	32	14	30
VIII	<u>1</u>	<u>4</u>	<u>1</u>	<u>5</u>	<u>2</u>	<u>4</u>
Total	27	100	19	100	46	100

Inspection of tables #13 and #14 shows that thirteen-year-old boys and girls are found in grades IV to VIII. Pupils having made normal progress should be in grades VII and VIII.

Fifty percent of the thirteen-year-old pupils are where they belong. Fifty percent are retarded from one to three years. The percentage of overageness in this group is slightly higher than the percentage for twenty American cities. (46.7% according to Tampa Survey.) The percentage of over age girls is higher than that of over age boys in this group (55% and 47% respectively).

Twelve-year-old pupils are found in grades VII to VIII. These pupils should be in grades VI and VII. Seventy percent are of normal age for their grades. Twenty-six percent are of over age and four percent are ahead one grade. In this group, seventy-nine percent of the girls are of normal age. The percentage for the boys is lower (62%). The percentage of the pupils making rapid progress is low; four percent for boys and five percent for girls.

These tables indicate that the twelve-year-old pupils have a better chance to be of normal age than the thirteen-year-olds. The number of pupils in these two groups is too small, however, to make general conclusions.

Retardation in the school was still greater before standard tests were utilized as an aid in classification.

## SUMMARY

1. The efficiency of a school system depends upon the degree to which children are brought into the school and the degree to which they are progressed through the school.
2. Ebenezer has a fair percentage of normal age children.
3. The percentage of over age children is high; that of under age children is low.
4. More opportunity should be given for rapid advancement.
5. The relatively high mental age in the different grades is due to overageness in the respective grades rather than to high mentality.
6. The younger children tend to be the brighter ones in their respective grades. They should not be held back because of their youth.
7. The percentage of over age children among the thirteen-year-olds is high. Fifty percent in this group are retarded.







# AGE-GRADE TABLE

## FOR HIGH SCHOOLS

Compiled \_\_\_\_\_ Date \_\_\_\_\_

School \_\_\_\_\_

Ages Computed\* as of Sept. 1, 19\_\_

YEAR		FRESHMAN			SOPHOMORE			JUNIOR			SENIOR			GRADUATE			Total											
Minimum Credits for each half year																												
Age		NORMAL AGE LIMITS FOR ENTRANCE INTO EACH HALF YEAR GROUP																										
Age period includes all Students whose ages run from		13 yrs. 9 mos. to 14 yrs. 9 mos.	14 yrs. 3 mos. to 15 yrs. 3 mos.	14 yrs. 9 mos. to 15 yrs. 9 mos.	15 yrs. 3 mos. to 16 yrs. 3 mos.	15 yrs. 9 mos. to 16 yrs. 9 mos.	16 yrs. 3 mos. to 17 yrs. 3 mos.	16 yrs. 9 mos. to 17 yrs. 9 mos.	17 yrs. 3 mos. to 18 yrs. 3 mos.	17 yrs. 9 mos. to 18 yrs. 9 mos.	18 yrs. 3 mos. to 19 yrs. 3 mos.																	
		B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T	B	G	T
10 yrs.	9 yrs. 9 mos. to 10 yrs. 3 mos.																											
10½ yrs.	10 yrs. 3 mos. to 10 yrs. 9 mos.																											
11 yrs.	10 yrs. 9 mos. to 11 yrs. 3 mos.																											
11½ yrs.	11 yrs. 3 mos. to 11 yrs. 9 mos.																											
12 yrs.	11 yrs. 9 mos. to 12 yrs. 3 mos.																											
12½ yrs.	12 yrs. 3 mos. to 12 yrs. 9 mos.																											
13 yrs.	12 yrs. 9 mos. to 13 yrs. 3 mos.																											
13½ yrs.	13 yrs. 3 mos. to 13 yrs. 9 mos.				1	1	2																		1	1	2	
14 yrs.	13 yrs. 9 mos. to 14 yrs. 3 mos.				3	3																				3	3	
14½ yrs.	14 yrs. 3 mos. to 14 yrs. 9 mos.				2	3	5			1	1	2														3	4	7
15 yrs.	14 yrs. 9 mos. to 15 yrs. 3 mos.				2	2				1	1	2														1	3	4
15½ yrs.	15 yrs. 3 mos. to 15 yrs. 9 mos.				2	3	5			1	1	2														3	4	7
16 yrs.	15 yrs. 9 mos. to 16 yrs. 3 mos.				2	2				4	6	10			1	1										7	6	13
16½ yrs.	16 yrs. 3 mos. to 16 yrs. 9 mos.					1	1			2	2				1	1										2	2	4
17 yrs.	16 yrs. 9 mos. to 17 yrs. 3 mos.										1	1			2	1	3									2	2	4
17½ yrs.	17 yrs. 3 mos. to 17 yrs. 9 mos.					1	1																				1	1
18 yrs.	17 yrs. 9 mos. to 18 yrs. 3 mos.																											
18½ yrs.	18 yrs. 3 mos. to 18 yrs. 9 mos.																											
19 yrs.	18 yrs. 9 mos. to 19 yrs. 3 mos.																											
19½ yrs.	19 yrs. 3 mos. to 19 yrs. 9 mos.																											
20 yrs.	19 yrs. 9 mos. to 20 yrs. 3 mos.																											
20½ yrs.	20 yrs. 3 mos. to 20 yrs. 9 mos.																											
21 yrs.	20 yrs. 9 mos. to 21 yrs. 3 mos.																											
Total Number		7 14 21			9 10 19			3 2 5									19 26 45											
Number of normal age students		2 8 10			6 8 14			3 2 5						11 18 29														
Number of over-age students		4 5 9			2 1 3									6 6 12														
Number of under-age students		1 1 2			1 1 2									2 2 4														
Per cent of students of normal age		29 57 48			67 80 74			100 100 100						58 70 64														
Per cent of students over age		57 36 43			22 10 16									31 23 26														
Per cent of students under age		14 7 9			11 10 10									11 7 9														

\*Use Strayer-Engelhardt Age-Computation Table

VI

HOLDING POWER OF THE SCHOOL

## HOLDING POWER OF THE SCHOOL

A school is considered more successful if it can hold the pupils until they have completed the higher grades. This is an index of how well the school is adjusted to the needs of the community. The United States is now a nation of seventh graders. Ten years ago it was a nation of sixth graders. Every community must do its share to help to make it a nation of at least eighth graders. In New York State, the children attend the school on the average 8.59 years.

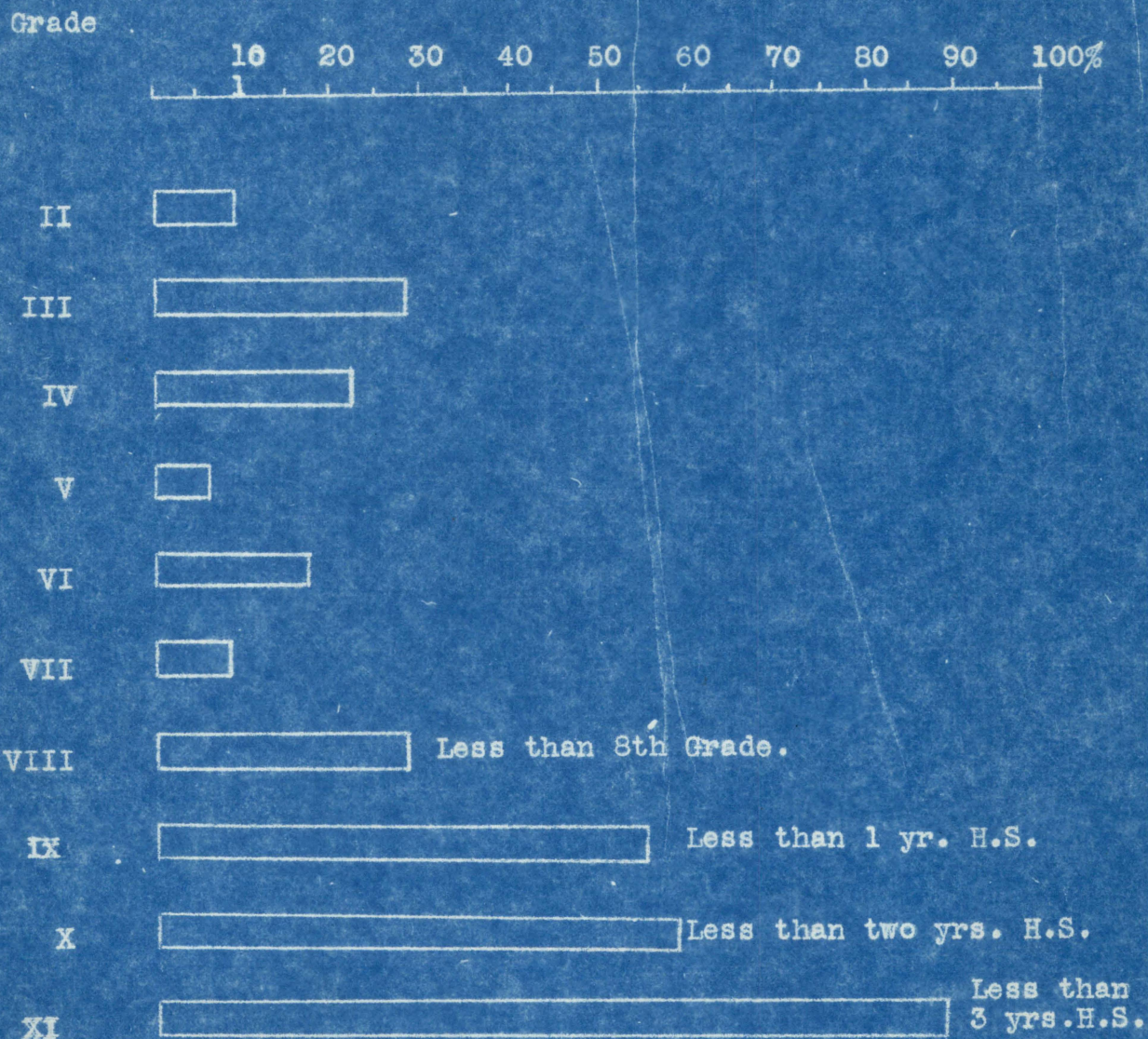
TABLE # 15.

SHOWING THE DIFFERENCE BETWEEN THE SEVEN YEAR OLDS  
WHICH REPRESENT THE LARGEST AGE GROUP OF THE SCHOOL  
AND THE ENROLMENT IN THE GRADES

<u>Grade</u>	<u>Enrolment</u>	<u>Difference from Greatest Age Group</u>	<u>Percentage Difference Is from Seven Year Olds</u>	<u>Education Secured</u>
I	52			
II	43	4	9	
III	34	13	27	
IV	36	11	23	
V	44	3	6	
VI	39	8	17	
VII	43	4	8	
VIII	34	13	27	Less than 8th grade
IX	21	26	55	Less than one year H.S.
X	19	28	59	Less than two years H.S.
XI	5	42	89	Less than three years H.S.

Chart# 4 .

Percentage- Difference Between The Seven-Year-Olds  
and The Enrolment in The Grades.



The seven year old pupils represent the largest age group in the school. Table # 15 shows the difference between this age group and the enrolment in the different grades. The elimination is large after the seventh grade. It indicates that very little effort has been made to hold these pupils in school. A gradual enrichment of the curriculum has been proposed in order to hold the pupils beyond the seventh grade.

The school board has agreed to provide manual training and mechanical drawing for the boys, and a course in home-making for the girls. To what extent such enrichment of the curriculum is feasible depends upon the ability of the community to pay.

TABLE # 16.

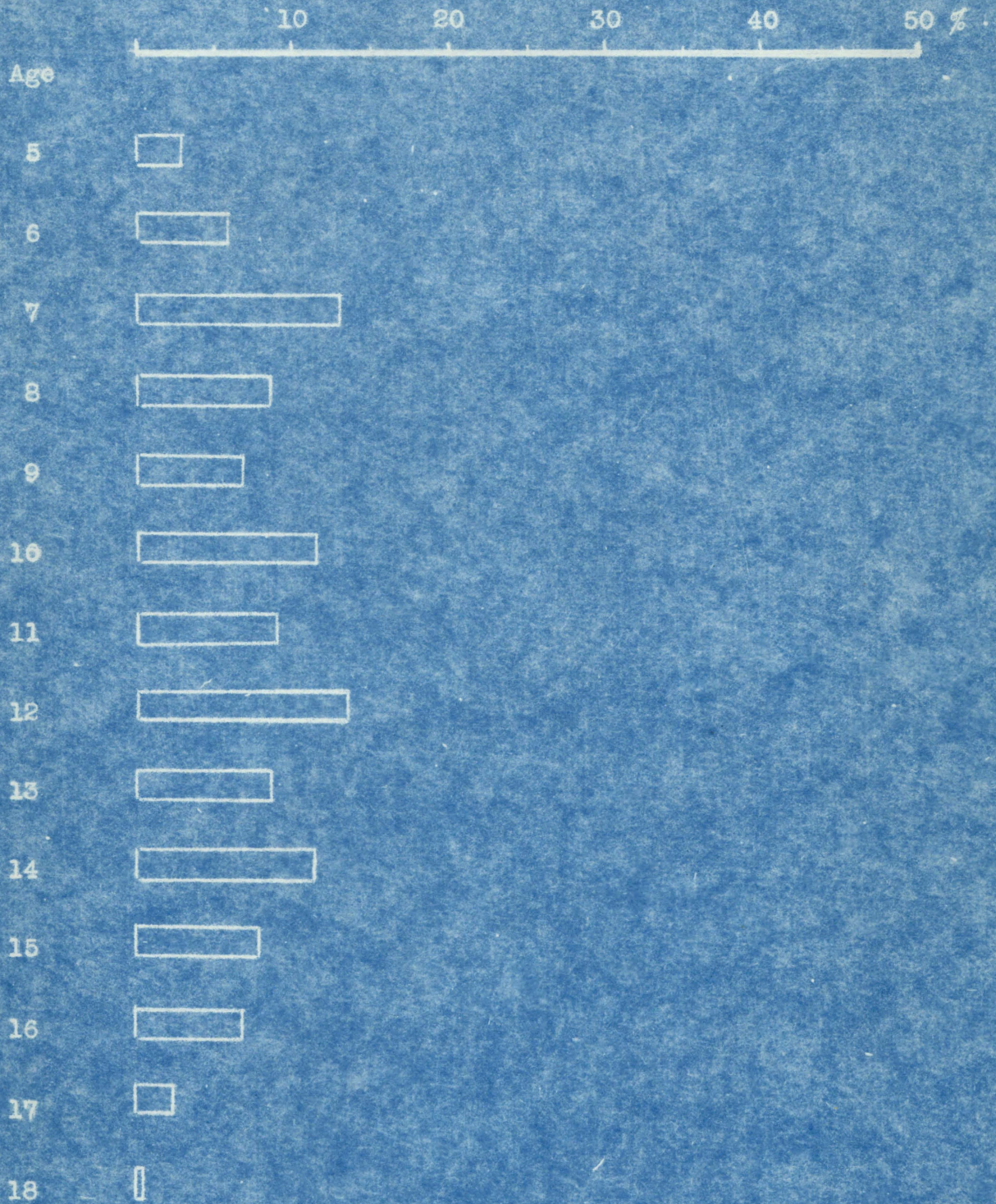
DISTRIBUTION OF PUPILS ACCORDING TO AGE GROUPS

<u>Age</u>	<u>Enrolment</u>	<u>Percentage of Enrolment in Each Age Group</u>
5	8	2 %
6	21	5
7	47	12
8	34	9
9	22	5.7
10	41	10.7
11	35	9.1
12	46	12
13	31	8
14	43	11
15	26	6.7
16	23	6
17	6	1.5
18	1	.26
Total	384	100.

Chart #5.

Distribution of Pupils According to Age-Groups.

Percentage of Enrolment in Each Age-Group.



According to table # 16 elimination is greatest after the fourteenth year, There is an elimination of almost fifty percent after the fourteenth year. This shows that the school has no attraction; no program suited to the needs of these older children. They leave school as soon as they reach the required age.

Inspection of the school census revealed the following numbers of children in the age groups from fourteen to seventeen years:

40 in the 14 year old group

32 in the 15 year old group

30 in the 16 year old group

24 in the 17 year old group

When these figures are compared with the enrolment according to ages, it is found that eighty-one percent of the fifteen year olds, seventy-six percent of the sixteen year olds, and twenty-five percent of the seventeen year olds are in school.

This indicates again that the school offers opportunity suited to the needs of children to the age of fourteen years, and through the eighth grade.

A study of the community's ability and effort leads to the conclusion that despite great effort on the part of the taxpayers, the school is giving opportunity to a relatively small percentage of its older children.



Since the ability to pay is not above the average, the community should make an effort to bring about a single and more efficient high school, supported by the districts of Ebenezer, Gardenville and West Seneca.

#### SUMMARY

1. Ebenezer is a community of seventh graders. It should help to raise the level of the nation by doing its share.
2. Elimination is large after the fourteenth year. This indicates that the school has no attraction for a large percentage of the older children.
3. The community should make an effort to bring about consolidation with the two nearby districts. The three districts have the resources to support one first rate high school.

VII

CLASSIFICATION OF PUPILS

## CLASSIFICATION OF PUPILS

Classification of pupils may be based on three main types of measurements. They are intelligence measurements, educational measurements and teacher's judgment.

There are two fundamental objectives of classification

- I. To put together those of equal educational status. Homogenous groups make more satisfactory progress, because such a group can be taught almost as one pupil. The needs of pupils in homogenous groups are practically the same.
- II. To put these together who will progress at equal rate. The best results can be obtained by periodic reclassification.

In order to reclassify the pupils of this school, these tests were given.

National Intelligence Test

Stanford Achievement Tests

(Primary and Advanced Form B)

Haggerty Intelligence Examination

Detroit First Grade Intelligence Test (Form A)

The Stanford Achievement Tests measure ability and achievement, in reading, arithmetic, science, history, literature, language usage, dictation and spelling. From these tests, the composite score of each pupil was obtained. The composite score in turn yielded the educational age of each pupil. The educational age of each child was used as one factor in reclassification. Mental age, educational age and pedagogical age

yielded the promotion age. The educational quotient for each pupil was found by dividing the educational age by the chronological age. The educational quotient of a pupil is 100% if the educational age in months is equal to the chronological age in months. If the chronological age is more, the educational quotient is less than 100 percent. If the chronological age is less, the educational quotient will be more than one hundred. The median educational quotient for all pupils in grades II to VIII was found to be 100.5.

#### CLASSIFICATION AND PLACEMENT TABLE

In order to make a classification table, the median of the educational ages of grades II and VIII were found. The median educational age for grade II is 91 months. The median educational age for grade VIII is 177 months. The difference is 86, or 86 months to be divided into six equal parts, because there are six grade intervals between grades II and VIII. In this school, each grade must lift the educational age of its pupils 14 months in one school year. This figure is larger than the one found by McCall in reclassifying a school. (W.A. McCall - "How to Measure in Education" page 46) (13.4 months).

The Ebenezer Free Union School has a yearly promotion plan. Since it was desired to change this plan to semi-annual promotion, it was necessary to make a table for this type of promotion. Grade II includes II B and II A. It was

considered that the median educational age for II B should be below the median for the whole group and the median for II A should be above that of the whole group. In establishing the median for II B, 3.5 was subtracted from 91 and a median of 87.5 was obtained. The medians for the other grades were found by adding seven months. To facilitate classification, the extremes of the grades were found and the range of the grades established. 3.5 was subtracted from 91 because the median for II B was estimated to be one-quarter of a year below the median for the grade III, on yearly promotion plan. Since a pupil has to make a progress of 14 months in one year, 3.5 months represents the progress of a grade in a quarter of a year.

It is desirable to base classification upon more than one factor. A combination of mental age and educational age and pedagogical age was used. The pedagogical age for each pupil was found as follows: Each grade teacher was asked to rank her pupils according to her judgment. The same pupils were then ranked according to their educational ages from high to low. In grade IV, the highest educational age was 138; the same pupil was ranked as first by his teacher. He received 138 as his pedagogical age. The third pupil in this grade according to educational age was ranked fourth by his teacher and he received 130 as his pedagogical age; 130 being the educational age of the fourth pupil according to educational age. In this manner, the pedagogical ages of all pupils were found.

Ed. A. plus M.A. plus Ped. Age = Promotion Age  
3 of each pupil

The classification of each pupil was based upon his promotion age.

TABLE # 17

RECLASSIFICATION TABLE FOR PRESENT PUPILS  
 PLACEMENT TABLE FOR FUTURE PUPILS OF EBENEZER UNION SCHOOL

<u>Grade</u>	<u>Educational Age</u>	<u>Educational Quotient</u>	<u>Grade</u>
II B	87.5 (est.)	100.5	Median
	91	"	Extreme
II A	94.5	"	Median
	98	"	Extreme
III B	101.5	"	Median
	105	"	Extreme
III A	108.5	"	Median
	112	"	Extreme
IV B	115.5	"	Median
	119	"	Extreme
IV A	122.5	"	Median
	126.5	"	Extreme
V B	130	"	Median
	134	"	Extreme
V A	137.5	"	Median
	141	"	Extreme
VI B	144.5	"	Median
	148	"	Extreme
VI A	152	"	Median
	155.5	"	Extreme

TABLE # 17 (Continued)

<u>Grade</u>	<u>Educational Age</u>	<u>Educational Quotient</u>	<u>Grade</u>
VII B	159	100.5	Median
	163	"	Extreme
VII A	166.5	"	Median
	170	"	Extreme
VIII B	173.5	"	Median
	177	"	Extreme
VIII A	180.5 (est.)	"	Median



## RULES USED IN RECLASSIFICATION

1. No pupil will be demoted or denied his normal promotion unless his promotion age falls below the median of the grade in which it is proposed to place him.
2. No pupil will be skipped over a grade whose promotion age does not exceed the median of the grade to which it is proposed to skip him.
3. No pupil will be skipped over more than one grade unless his educational quotient is above 100.5, the median educational quotient of all pupils in question.

The Medians were used as points of reference rather than High and Low Quartiles (McCall "How to Measure in Education.") in order to make reclassification less drastic and to avoid difficulties with parents. Another reason was the fact that the pupils in this school are required to grow fourteen months educationally in one school year.

TABLE # 18.

DISTRIBUTION OF CHANGES MADE IN RECLASSIFYING  
THE SCHOOL BY MEANS OF PROMOTION AGES

Amount of Change	Number of Pupils							<u>Total</u>
	<u>II</u>	<u>III</u>	<u>IV</u>	<u>V</u>	<u>VI</u>	<u>VII</u>	<u>VIII</u>	
Demoted four grades						1	2	3
Demoted three grades	1			1	1	5		8
Demoted two grades	3	2	3		3	8	3	22
Demoted one grade	7	4	5	5	10	10	5	46
No change	27	22	20	30	16	11	13	139
Promoted one grade	4	6	6	7	3	5	6	37
Promoted two grades	1	1	1	3	1			7
Promoted three grades	1				1	1		3
Promoted four grades					2		1	3
<b>Total</b>	<b>44</b>	<b>35</b>	<b>35</b>	<b>46</b>	<b>37</b>	<b>41</b>	<b>30</b>	<b>268</b>

Table # 18 leads to the following conclusions:

1. About 48% of the pupils are wrongly classified.
2. About 52% of the pupils are where they belong.
3. About 31% of the pupils are misplaced one grade.
4. About 17% of the pupils are misplaced two or more grades.
5. About 30% of the pupils are pushed ahead of the grades where they belong, while about eighteen percent are held back from the grades where they belong.

Table # 17 is based upon semi-annual promotion. The school, however, is using the annual promotion plan.

Chart# 6.

Classification of Pupils.



Correctly Placed,



Wrongly Placed,



Misplaced onegrade,



Misplaced two or more grades,



Pushed ahead of grade where they belong,



Held back from grade where they belong.

The high percentage of misplaced pupils is due to the fact that the school had yearly promotion, while the classification table was made out for half-yearly promotion. The pupils demoted one grade would not have been demoted if the yearly plan had been used. In this case, one hundred eighty-five pupils or sixty-nine percent would have been in grades where they belonged and thirty-one percent would have been misplaced. Only twelve percent would have been demoted while nineteen percent would have been promoted.

From the comparison of the two plans of classification (i.e. based upon annual or semi-annual promotion), it is obvious that the range between pupils' abilities is too large in the same grade on yearly promotion. The groups are too heterogenous to be taught effectively. The grades should be broken up into two groups; a rapid and a slow group. It is not possible to have two teachers for each grade in this school. The teacher in each grade, however, could do more efficient teaching if she would instruct her pupils as two homogenous groups.

RECLASSIFICATION BASED UPON EDUCATIONAL AGE COMPARED  
WITH RECLASSIFICATION BASED UPON PROMOTION AGE

In this study, reclassification was based upon the promotion age of each pupil in order to have three factors affecting the promotion rather than educational age alone. The question arose whether the difference is great enough to justify such a procedure or whether the educational age alone would secure practically the same results. In order to answer this question, the promotion ages of the pupils were compared with their educational ages. It was found that seventy-four cases or twenty-eight percent of the placements, varied when promotion age was used. It seems that this high percentage justifies the use of promotion age based upon educational age, pedagogical age and mental age, since the promotion age is composite of three variables.

Although the pedagogical age is based upon the teacher's judgment, which is thought of as inadequate and inaccurate, it was considered to be a valuable factor in classification, because there are significant segments in each pupil's make-up, which tests do not now measure. The teachers can weigh physical, emotional and social characteristics for which we have no satisfactory objective tests at present. Since improvement in these characteristics are aims in education, they ought to be considered in determining promotions.

Comparison of pedagogical ages and educational ages is of value for the teachers, since it tends to improve the teachers' judgments of pupils.

The pedagogical and educational ages of the pupils were compared by finding their correlation. The coefficient of correlation of the educational ages and pedagogical ages of the grades II to VIII were obtained. The coefficients of correlation for the several grades were found first. The median of the seven grades yielded these values.

Correlation between Pedagogical and Educational Age	Grade
.896	II
.711	III
.960	IV
.840	V
.827	VI
.827	VII
.827	VIII
Correlation for grades II to VIII	.841 (Rank Method)

It was found that the correlation for all grades except grade III was high. (.7 to 1 is considered high correlation.) In this school, the teachers' judgment is very reliable, due perhaps to the use of educational tests. It must be mentioned that the teachers' ranks were made independently of the Stanford Achievement Tests.

Mental tests and educational tests were not correlated. Inspection, however, revealed that in fifty-two of the above mentioned seventy-two cases affected by promotion age, mental age was the determining factor.

## SUMMARY

1. Two fundamental objectives of classification are: to arrange pupils into homogenous groups which can be instructed more advantageously, and progressed at an equal rate.
2. A combination of scores based upon mental age, educational age, and the teachers' judgment offers a satisfactory means for classification of pupils.
3. Semi-annual promotion is preferable to annual promotion, because educational ages are spread more when promotion is annual. This tends to make the groups less homogenous.
4. Teachers' judgment in this school appears very reliable, as is shown by the high correlation existing between their judgment and the educational ages of the pupils. It appears evident this is due to the frequent use of standard tests.
5. It is desirable to compare teachers' ranks with the educational scores, because it tends to improve teachers' judgment of their pupils.
6. A larger percentage of pupils in this school should be in the rapid progress group.
7. Classification tables are useful for placing new or transfer pupils. These pupils should be given achievement and mental tests. The average of the two scores, translated into educational ages should be used in their classification.

ИЗВЕЩАНИЕ

III



## ACHIEVEMENT

The final test of whether a school is efficient, is a measure of results. It is important to know to what extent satisfactory work is accomplished.

It was desired to compare the work done in reading and in arithmetic with standard norms in these subjects. The scores of the Stanford Achievement Test in reading and in arithmetic were used to judge the abilities of the pupils in these subjects. The scores of the pupils in grades II to VIII were used.

All the scores in these subjects were changed into subject ages. The median subject age for each grade was then found and these medians were compared with the grade norms. According to "Stanford Achievement Test Manual of Directions" the school year is considered to begin September 15. Thus a child in the fourth grade tested on September 15, would belong in grade 4.0. One tenth of a month is added for each month beyond September 15. The tests were given in February, therefore, five tenths of a grade were added to each grade. A child in the fourth grade, tested in February, was recorded as being in grade 4.5. Since the subject ages were used instead of the scores, the median subject ages were compared with the subject age norms of the grades in February.

The median reading age for grade VIII was found to be thirteen years. The grade VIII would be recorded as grade 8.5 in February. Since fourteen years and six months is the

subject age for grade 8.5, 14.6 was used as age norm for grade VIII. The subject age norms for the other grades were found by the same procedure. The results are summarized in table # .

TABLE # 19.

READING AND ARITHMETIC

Grade	II		III		IV		V		VI		VII		VIII	
	Re.	Ar.	Re.	Ar.	Re.	Ar.	Re.	Ar.	Re.	Ar.	Re.	Ar.	Re.	Ar.
Median Subject Ages in Months	88.5	95	107.5	110	121	127	135	146	142.5	161	148.5	159.5	156	198
Age norms in months	86	86	112	112	126	126	136	136	148	148	159	159	174	174
Difference	+2.5	+9	-4.5	-2	-5	+1	-1	+10	-5.5	+13	-10.5	+5	-14.5	+24

Mean difference in reading -5.5

Mean difference in arithmetic + 8.5

Table # 19 shows that all grades with the exception of Grade II are below standard in reading. Grades VII and VIII are 10.5 and 14.5 months below the standards for these grades.

In arithmetic, all grades except grade III are above standard. Grades VI and VIII are outstanding. Grade VI is thirteen months, and grade VIII is two years above standard.

It is evident that there is much stress placed upon teaching of arithmetic. This condition should be corrected. Less time should be used for arithmetic and more for reading.

#### SUMMARY

1. The school is below standard in teaching of reading.
2. The school is above standard in teaching of arithmetic.
3. More stress should be placed upon the teaching of reading.

No school can afford to stress the teaching of one subject more than the teaching of another when fundamentals are concerned. Reading power is necessary for progress in nearly all the other subjects.

IR

EXPAND YOURS

## SCHOOL FINANCING AND SCHOOL COSTS

School officials are confronted with the task of educating an ever increasing number of pupils; extending to them an improved and enriched service, and at the same time, of keeping the costs within the community's ability to pay.

The taxpayer is interested in how much and why school expenditures have increased. He often overlooks the fact that there is a difference between real and seeming increase. Real increases exist when more dollars of the same value are spent for identical service or equipment. Such increases are justified only when the service and equipment cannot be obtained at the old rate. Seeming increases may be due to rendering service of equal quality to a larger number of pupils; to purchasing higher quality of service or equipment or to decrease in purchasing power of the dollar. The school board is justified in asking such increases until the community tells it to lower the quality of service or equipment or not to admit additional children.

Increases are studied best on the following four items: current expense, debt service, capital outlay and total expenditure.

Current expense is the expenditure above earning for running the school system.

Debt service includes the payment of interest and amounts for retiring bonds.

Capital outlay is the expenditure for building and

equipment, things lasting more than one year.

Total expenditure is the sum expended for the three items.

Increases stated in totals do not take into account increased enrolment or decreased purchasing power of the dollar. These increases are misleading. Increases per pupil in average daily attendance are more satisfactory for comparison since they allow for increased number of pupils.

The three divisions of the school expenditures increased in the years from 1924 to 1927 as follows:

	<u>Percentage of Increase</u>
In 1925-26	
Current expense increased	10
Debt service decreased	8
Capital outlay increased	900
Total expenditure increased	25.8
In 1926-27	
Current expense increased	45
Debt service increased	410
Capital outlay increased	22080
Total expenditure increased	614

Percentages are based on expenditures in 1924-25 taken as one hundred percent. The increases in succeeding years are due to employing additional teachers and development of an academic department. In 1924-1925, the school started with one year high school. Since then one year has been added every year. The school has its first senior class this year. Educational cost per pupil in average daily attendance in high school is higher as compared with the cost per pupil in the grades. The increases in the expenditures, especially debt service, and capital outlay will be more normal for the next few years. The increase of cost per pupil in average daily attendance in 1926-1927

over 1924-1925, based on current expense, is fifteen dollars or 19.4 percent. Because of the abnormal increase of capital outlay and debt service, the per pupil increase for these items was considered to be of little value. The increase in capital outlay in 1926-1927 can not be charged entirely to actual school cost for that year, because it was due to the erection of a new building and to new equipment. Buildings and equipment are used more than one year. This increase in capital outlay, however, indicates a willingness of the taxpayers to improve educational facilities of the community.

Research bulletin of N.E.A. November 1926 Volume 4, No. 5, states that every additional day's attendance in high schools costs approximately two and one-half times as much as an additional day's attendance in elementary schools.



TABLE # 20.

## SCHOOL EXPENDITURES AND INCREASES

1924 to 1927

Year	1924-25	1925-26	1926-27	
Item of Expenditure				
<u>Current Expense</u>				
Amount	\$19762.40	\$21885.28	\$28696.15	Increase in per pupil cost since 1924 \$15 or 19.4% (based on av. daily atten.)
Percent Increase	-----	10%	45%	
Pupil Cost (A.D.A.)	\$ 77.2	\$ 76.	\$ 92.2	
<u>Department Service</u>				
Amount	\$ 6144.81	\$ 5650.00	\$31326.13	
Percent Increase	-----	minus 8%	410%	
<u>Capital Outlay</u>				
Amount	\$ 582.27	\$5815.88	\$129137.12	
Percent Increase	-----	900%	22080%	
<u>Total Expenditure</u>				
Amount	\$26489.48	\$33351.16	\$189159.40	
Percent Increase	-----	25.8%	614%	

## REAL SCHOOL COSTS

There exists a difference between school costs and school expenditures. All moneys paid out by school authorities are school expenditures. Money paid for a building in one year is not a school cost for that year. The building cost for that year is the part used up or depreciated in that year. Interest lost on a paid up building constitutes school costs. Certain expenditures, depreciation charges and lost interest charges constitute real cost. Depreciation is usually considered as two percent of the building at the beginning of the year. (Report of the Educational Finance Inquiry Commission, Vol.I) Depreciation of five percent in equipment is standard throughout the country. The value of school land is considered constant. Under these considerations, the real cost based on average daily attendance is given in table # 21 .

The real cost per pupil based on average daily attendance was one hundred thirty-three dollars in 1926-27. In order to find loss of interest, the indebtedness was subtracted from the value of the site and the building at the beginning of the year. The difference was credited with five percent interest.

TABLE # 21.

## REAL COST BASED ON AVERAGE DAILY ATTENDANCE

1926 - 1927

<u>Item</u>	<u>Amount</u>	<u>Per Pupil Cost</u>
Cash disbursement for which no property equivalent remained		
Current Expense	\$28696.15	\$92.20
Interest on Indebtedness	8776.13	28.20
Loss of Interest on invested money	<u>2166.00</u>	<u>7.00</u>
TOTAL	\$39638.28	\$127.40
Depreciation in School Property		
Building	\$ 1460.00	\$ 4.70
Equipment	<u>318.50</u>	<u>1.00</u>
TOTAL	\$ 1778.50	\$ 5.70
TOTAL REAL COST	\$41416.78	\$133.10

## ITEMS OF SCHOOL EXPENDITURES

School expenditures are divided into eight general classes:

- (1) general control
- (2) instruction
- (3) operation of school plant
- (4) maintenance of school plant
- (5) auxiliary of school plant
- (6) fixed charges
- (7) debt service
- (8) capital outlay

(1) Under general control are included all expenses that are chargeable directly to the Board of Education.

(2) Under instructional services are included salaries of supervisors, principals and teachers; also supplies used in teaching. This item does not include any expense for equipment.

(3) Operation of plant includes wages of janitor and employees who keep the building in proper condition for the use of teachers and pupils. It includes cost of fuel, light and power, water, cleaning supplies and any other supplies which are used in or about the building. It includes the general care of the school ground, mowing the lawn, cleaning the walks or caring for flowers or shrubs.

(4) Under maintenance of plant are charged all repairs and replacements. In short, any expense that is intended for the upkeep of the property should be charged to maintenance.

(5) Auxiliary agencies includes expenditures, the purposes of which are to supplement the regular school work, such as expenses for library, medical inspection, school nurses, health service, recreation, provision of lunches,

transportation of pupils.

(6) Under fixed charges are included the district's contribution to teachers' pension fund, the rent of school property, insurance on buildings or other equipment and taxes where charged against school property for such purposes as building and maintaining sewers, street pavement, etc.

The above six items of expenditures constitute the current expenses of running the school system. Comparisons may be justly made between school systems, in so far as expenditures for these purposes are concerned.

Capital outlay and debt service should be omitted in comparing financial statements of different school systems.

These items are of interest to show what communities are doing in the way of enlarging school plants or of constructing new buildings, and in determining to what extent borrowed capital is used.

TABLE # 22.

PER PUPIL COST

BASED ON

AVERAGE DAILY ATTENDANCE  
AND  
CURRENT EXPENSE

1924 - 1927

<u>Year</u>	<u>Current Expense</u>	<u>Average Daily Attendance</u>	<u>Per Pupil</u>
1924-25	\$19762.40	256	\$72.20
1925-26	21885.28	286	76.50
1926-27	28696.15	311	92.20

TABLE # 23.

PER PUPIL IN DISTRICTS WITH HIGH SCHOOL  
DEPARTMENTS FOR NEW YORK STATE

<u>Year</u>	<u>Per Pupil Cost</u>
1919-20	\$63.69
1920-21	79.15
1921-22	80.51
1922-23	92.87
1924-25	96.84

This table shows that Ebenezer falls below the average amount paid in 1924-25. If we assume that there has been a similar increase from 1925 to 1927 as there was in the preceding years in this type of schools throughout the state,

Ebenezer's per pupil cost based on current expense falls far below the average.

In the two school years 1925-26 and 1926-27, seventy-four percent of the total current expense was paid out for teachers' salaries in Ebenezer. According to "The Educational Finance Inquiry Commission's report on Elementary School Cost in the State of New York" seventy-three percent was found to be the average percentage. (The Financing of Education in the State of New York by the Educational Finance Inquiry Commission, Vol. I).

## RELATIVE COSTS IN ELEMENTARY AND HIGH SCHOOL

Accounts for elementary and high schools are not segregated. The salary ratio formula has been found to offer a convenient means for apportioning costs to the two educational branches. (The Financing of Education in the State of New York by the Educational Finance Inquiry Commission, Vol. I)

The salary ratio formula states that the amount of money spent for teachers' salaries bears a close and constant relationship to the total current expense in each division of the school system. In order to find the total expenditure for the elementary school, the total expenditure is multiplied by the salaries of elementary teachers divided by the salaries of the teachers in both divisions.

TABLE # 24.

### TEACHERS' SALARIES

<u>Year</u>	<u>Elementary Teachers</u>	<u>High School Teachers</u>	<u>Total</u>
1924-25	\$12,485.00		\$12,485.00
1925-26	11,807.50	\$2700.00	14,507.50
No. of teachers	9	2	11
1926-27	13,180.00	5380.00	18,560.00
No. of teachers	11	4	15



TABLE # 25.

CURRENT EXPENSES FOR HIGH SCHOOL AND ELEMENTARY SCHOOL

<u>Year</u>	<u>Elementary School</u>	<u>High School</u>	<u>Total</u>
1924-25			\$20,837.83
1925-26	\$17,727.07	\$4158.21	21,885.29
Percentage	81.	19.	100.
1926-27	20,374.26	8321.89	28,696.15
Percentage	71.	29.	100.

Salary Ratio =  $\frac{\text{Elementary Teachers' Salary}}{\text{Total Salary}}$

1925-26	$\frac{11807.50}{14507.50}$	•	81%
1926-27	$\frac{13180}{18560}$	•	71%

In 1925-26, eighty-one percent of the total current expense was used for elementary school and nineteen percent was used for the high school. In 1926-27, the percentage of the total current expense for the high school increased twenty-nine percent. This is due to the fact that the number of teachers in the high school was increased. The school in that year offered three years high school education.

PER PUPIL COST OF CURRENT EXPENSE  
BASED ON AVERAGE DAILY ATTENDANCE

In 1925-26, the per pupil cost in the high school was one hundred thirty dollars (\$130.00) and in 1926-27 it increased to two hundred twenty-five dollars (\$225.00). Additional teachers and equipment and relatively small classes account for this increase. It is of interest to compare these costs with per pupil costs of similar schools. In the school year ending 1921, three year union schools showed expenses for high schools as follows:

Average	\$199.00
High	\$1132.00
Low	34.00

(Financing of Education in the State of New York, Vol. I, P. 63)

Ebenezer falls below the average in 1925 and somewhat above the average in 1926. The per pupil cost in high schools of small communities tends to be greater than that in cities, due to teachers' salaries and comparatively small classes. As stated before, the salary ratio was used for segregating elementary costs. This formula is the best means yet devised for the purpose for the state as a whole. It does not, however,

necessarily give absolute values when applied to individual school systems; it is a fair approximation.

TABLE # 26.

PER PUPIL COST OF CURRENT EXPENSE  
BASED ON AVERAGE DAILY ATTENDANCE

Year	Average Daily Attendance		Per Pupil Cost	
	Elementary School	High School	Elementary School	High School
1924-25	256	0	\$81.39	0
1925-26	254	32	70.00	\$130.00
1926-27	274	37	74.00	225.00

(Average daily attendance is found by dividing aggregate number of days of attendance by the actual number of days school was in session excluding holidays.)

TABLE # 27.

PER PUPIL COST IN TERMS OF TEACHERS' SALARIES  
AND AVERAGE DAILY ATTENDANCE

<u>Year</u>	<u>Teachers' Salaries</u>		<u>Average Daily Attendance</u>		<u>Per Pupil Cost</u>	
	<u>Elem.</u>	<u>High</u>	<u>Elem.</u>	<u>High</u>	<u>Elem.</u>	<u>High</u>
1924-25	\$12485.00		256		\$48.77	
1925-26	11807.50	\$2700.00	254	32	47.00	\$84.40
1926-27	13180.00	5380.00	274	37	48.10	145.00

The per pupil cost based on teachers' salaries and average daily attendance was found to be forty-seven dollars (\$47.00) in 1925 and forty-eight dollars (\$48.00) in 1926 in the elementary school. The average cost for Union schools with two and three years high schools is forty-eight dollars and forty-six dollars respectively. (Financy Inquiry, p 57.) This shows that Ebenezer pays the average amount of money for this service and should expect average results for expenditure.

In the two school years from 1925 - 1927, the per pupil cost based on teachers' salaries and average daily attendance was \$84.40 and \$145.00 respectively for the high school. \$145.00 is high when compared with villages over 4,500 the only values given for small schools in the Finance Inquiry, p 65.

## SUMMARY

1. When comparing increases in school costs, one must distinguish between real and seeming increases.
2. Increases are best studied when based upon current expense, debt service, capital outlay and total expenditure.
3. To allow for increased number of pupils, studies of increases in cost should be based upon the number of pupils in average daily attendance.
4. Current expense increased 19.4 percent in 1926 over 1924.
5. Increases due to new buildings should not be charged to any one year; not all school expenditures in any one year constitute the school cost for that year.
6. School authorities usually do not consider lost interest on money invested and depreciation of school property. These items must be included in order to find the real cost per pupil.
7. Ebenezer had a real cost of \$133.00 per pupil in average daily attendance in 1926-27.
8. The per pupil cost based on current expense was \$92.20. This is below the average cost for similar schools in New York State (\$96.34 in 1924-25)(The University of the State of New York Bulletin, No. 870, p 110)
9. Ebenezer paid about the average percentage of its current expense for teachers' salaries, 74 percent as compared with 73 percent in New York State.

10. The relative cost in the elementary and high school was found by the use of the salary ratio formula. In 1926-27, seventy-one percent of the current expense was used for the elementary school and twenty-nine percent for the high school. The percentage used for the high school is higher than the median paid in New York State (twenty-three percent)

11. The per pupil cost based upon current expense is higher in the high school than the average cost for similar schools (\$225.00 as compared with \$199.00)

12. Ebenezer has an average per pupil cost in the elementary school when based upon teachers' salaries. The per pupil cost in the high school, however, is high.

RESOURCES

X

## SCHOOL REVENUES

The American public school is supported by public taxation.

We are coming to recognize that the public school is the greatest productive institution. Most of our wealth would be impossible without the trained intelligence for which the school lays the foundation. Part of this wealth should be set aside for the maintenance of this institution. This principle has only recently been accepted. Less than a century ago, it was considered a heresy to tax one man's property to educate the children of his neighbor. Today the local school tax is levied everywhere as a matter of course. Practically all states aid in the support of the schools through money raised by taxation. The federal government is slowly increasing its share of support by contributing money raised through national taxation.

The principle has been recognized that every dollar of the nation's wealth, no matter where it exists, should bear its just share in educating the nation's children, no matter where they live.



Receipts for school purposes may be divided into two groups: revenue receipts and non-revenue receipts. Revenue receipts do not increase school indebtedness or deplete school property. Such revenues come from federal government, from the state, from the county, from the local community, through taxation, from interest on money and from miscellaneous sources. Examples of non-revenue receipts are those from sale of property, sale of supplies, bond issues, short term loans, insurance adjustments and miscellaneous sources.

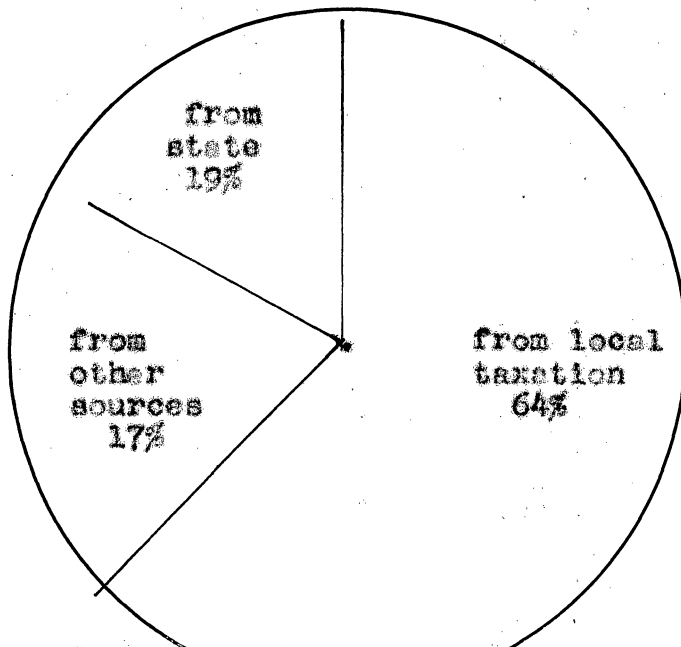
TABLE # 28.  
SCHOOL RECEIPTS  
1926 - 1927

<u>Revenue Receipts</u>	<u>Amount</u>	<u>Percentage of total</u>
State	\$10,098.87	5
Local Taxation	<u>34,991.72</u>	<u>17</u>
TOTAL	\$45,090.59	22
 <u>Non-Revenue Receipts</u>		
Sale of Bonds	\$148,128.54	73
Insurance Adjustments	147.96	
Miscellaneous	<u>9,296.67</u>	<u>—</u>
TOTAL	\$157,573.17	78
GRAND TOTAL RECEIPT	\$202,663.67	

During the year 1926-1927, the total receipts amounted to \$202,663.67. Of this amount 73 percent was raised by selling bonds. These bonds were sold in order to pay for enlarging and equipping the building. The percentages could not very well be used for comparison with receipts of other communities because of the large sum received through selling of bonds. In order to obtain satisfactory percentages, this amount should be omitted. The total income without this money would be \$54,535.13. Of this sum, \$45,090.59 or 83 percent are revenue receipts and \$9,444.54 or 17 percent are non-revenue receipts. \$10,098.87 or 19 percent was paid by the state and \$34,991.72 or 64 percent by local taxation.

CHART # 7.

DERIVATION OF SCHOOL RECEIPT DOLLAR



(assessed valuation \$2,915,120.00  
school tax rate \$12.00 per \$1000.00  
assessed valuation)

## FEDERAL AND STATE SUBVENTIONS

Three-fourths of the funds used to support public education in the State of New York are raised by local taxation, i.e. by the school districts, the villages and the cities. A comparatively small amount only is furnished by the federal government, the remainder is supplied by the state. Ninety-nine out of every one hundred dollars used for school purposes is raised by taxation; one percent only comes from other sources. In 1922, local political subdivisions paid seventy-seven percent of the school cost. Ebenezer raised eighty-one percent of the money for school purposes in 1926-27. When the shares supplied by the state and the community are based upon current expense only, it is found that the state paid thirty-five percent of the total current expense. When the amounts paid by state and the community are based upon real school cost for the year 1926-27, the percentages for state and community are twenty-four and seventy-six percent, respectively. This approximates the average very closely.

### Federal Aid

Communities of the class to which Ebenezer belongs do not receive federal aid directly because federal money is distributed on the basis of sharing salary costs of teachers and supervisors of special subjects (vocational and agricultural in nature).

### State Aid

The state government is responsible for providing schools for all children. In practice the states, however, delegate to the local school districts most of this duty. This policy is wise and satisfactory so long as communities can and are willing to meet this responsibility; otherwise the responsibility for providing all children with a good common school education falls to the state government. It is the policy in New York State to help poor districts on the one hand and to encourage others to provide first rate schools. The state contributes enough money to poor districts to assure at least forty-three dollars (\$43.00) for every pupil when the districts are unable to raise this amount by levying a reasonable tax on taxable property. Districts receive additional money from the state by making a reasonable effort on their own resources.

Thirteen criteria are used in distributing state money to localities:-

1. The school district per se
2. The employment of a superintendent
3. The number of licensed teachers employed
4. The population of the district
5. The assessed valuation of property of the district
6. The maintenance of a high school
7. The number of non-resident students attending high school
8. The aggregate daily attendance in the high school
9. The maintenance of a teachers' training class
10. Aggregate daily attendance in training class
11. Amount spent for books, apparatus, etc
12. Length of school term.
13. Salaries of teachers

All criteria except 1, 9 and 10 apply to Ebenezer.

Districts are classed according to table # 29 .

TABLE # 29.

<u>Assessed Valuation</u>	<u>District Quota</u>
Less than \$10,000.00	\$200.00
\$20,000.00 - \$40,000.00	175.00
\$40,000.00 - \$60,000.00	150.00
Over \$60,000.00	125.00

In 1926-27, the assessed valuation for Ebenezer was \$2,915,120.00. Its district quota therefore was \$125.00.

As a district maintaining an academic department, Ebenezer received \$350.00 and \$200.00 for each year of academic instruction; \$50.00 per non-resident pupil from districts not maintaining academic departments; \$18.00, an amount paid to every school district plus \$2.00 for every licensed teacher. Every union free district maintaining an academic department is granted up to \$250.00 depending upon available funds. Three quotas:- "the district quota", the "additional teachers' quota" account for ninety-one percent of the total state subventions. This entire amount goes to the paying of teachers' salaries. (Financing of Public Education in the State of New York, by the Educational Finance Inquiry Commission, Vol. I, p. 100)

#### MONEY RAISED BY LOCAL TAXATION

The school district of Ebenezer raises money for school purposes by levying a school tax. In 1926, the tax rate for this purpose was twelve dollars (\$12.00) per thousand dollars assessed valuation and yielded \$34,981.44. The amount to be raised is based upon the budget of the previous year. The school clerk appointed by the board, makes the budget.

## SUMMARY

1. The public school is a productive institution and should be supported by public money.
2. Not counting the money raised by the sale of bonds, Ebenezer obtained sixty-four percent of the money for school purposes for the year 1926-1927 from local taxation, nineteen percent from the state, and seventeen percent from other sources.
3. Districts, villages and cities in New York State raise seventy-five percent of the money for education. Ebenezer paid eighty-one percent of its school cost.
4. The amount of money furnished by the federal government is relatively small.
5. Out of every hundred dollars spent for school purposes, ninety-nine dollars is raised by taxation.
6. New York has a complicated system of distributing school money. It is the policy of the state to help poor districts on the one side and to encourage others to provide first rate schools.
7. Of the money given by the state, ninety-one percent goes to the paying of teachers' salaries.
8. The amount of money received from the state could be increased in Ebenezer by enriching the curriculum. This would involve adding of special subjects and hiring of teachers of these subjects. The justification of the increased expenditure involved for the community must be based on a study of the community's ability to pay for education.

XI

ABILITY TO PAY FOR EDUCATION



## ABILITY TO PAY FOR EDUCATION

Ability of a community to provide satisfactory educational facilities depends a great deal upon taxable property, or amount of wealth behind every pupil in average daily attendance. Some districts would require a higher tax than the constitutional limit permits in order to maintain high grade school systems. Other districts are so rich that first rate schools are possible on a low tax rate. In New York State, the full valuation of real property per pupil in average daily attendance varies from \$71,159.00 to \$1,377.00. The latter district would have to levy fifty-three times as high a tax as the first. (Research Bulletin Vol. IV, No. 4, September 1926 N.E.A.) On this basis, Ebenezer had \$14,572.00 or about ten times as much real wealth behind every child in average daily attendance during the school year 1926-1927, as the poorest district in the state. This amount, however, is only one-half of the average wealth behind each child in that state.

Ability to pay for education is usually found by dividing economic resources by the number of children in a community. The assumption is made that the ability to support schools and the number of children in a community vary in a direct ratio. Harold F. Clark in "The Effect of Population upon the Ability to Support Education." (School of Education Bulletin, University of Indiana, September 1925, Bloomington p. 29) challenges this assumption. He emphasizes the importance of the ratio of adult to child population as a factor in determining a community's ability to support education.

He states that beginning with a reasonable number of children, doubling that number reduces to one-fourth the amount of education that can be supplied to each child, because

1. additional children have to be fed and clothed,
2. a larger percentage of children makes a larger percentage of non producing people,
3. a larger percentage of children makes a smaller percentage of people in the most productive ages.

He develops a formula, the use of which it is contended, in connection with figures for per capita wealth, provides a more adequate measure of ability to support education than any other. The formula uses the ratio of two adults to one child as the standard ratio. Communities are compared or measured by this ratio as a reference point. The formula is  $\frac{x^2}{4}$ ;  $x$  is the ratio of the number of adults to each child. This ratio is squared and divided by 4. A community having this standard ratio of adults to children; two adults to one child, uses the formula as follows  $\frac{x^2}{4}$  or  $\frac{4}{4} = 1$ . This value is multiplied by the per capita wealth of the community in order to obtain the standard ability to pay for education. If a community has one adult to one child, the ratio is  $\frac{x^2}{4}$  or  $\frac{1}{4}$  or .25. This multiplied by the per capita wealth yields the community's ability to pay. This formula takes into account varying percentages of children that populations with similar per capita wealth have, and so seeks to correct per capita wealth as a measure of ability to support education.

The assumption is made that doubling the number of children reduces a community's ability to educate each child to one-fourth; the formula has some support from previous investigations.

The United States' ability to support education is considered as 1.00. All states or communities may be compared with this standard.

The application of this formula is shown in table # 30 .

TABLE # 30

States	Ratio of Adults to Children	Ratio Squared	$\frac{x^2}{4}$	Per Capita Wealth	Standard Ability	Index of Ability
1	2	3	4	5	6	7
					4 multiplied by 5	
New York	1.68	2.82	.75	\$3550.38	2520.77	1.85
Alabama	.95	.90	.23	1240.74	285.37	.21
California	2.08	4.33	1.08	4283.18	4625.83	3.41
United States	1.35	1.82	.46	2945.13	1354.76	1.00
Ebenezer	2.1	4.4	1.1	\$1799.00	1978.9	1.4

Ebenezer

Approximate Population	2000
Adults	1340
Children	640
Real Wealth	\$3,598,913.00
Per Capita Wealth	1,799.00
Ratio of Adults to Children	2.1
Standard Ability to Pay	\$1,978.90
Index of Ability	1.4

Index of ability is obtained by dividing ability of Ebenezer  
by ability of U.S.A. 1978.9 divided by 1354.76 = 1.4.

According to table #30 Ebenezer's ability to pay for education is about forty percent higher than that of the United States and about forty-five percent lower than that of New York State. The index of ability for Ebenezer would be less than 1.4 if the number of children in the age groups from 0 to 5 and 18 to 20 had been available. The indices for the states in the table are based on ages from 0 to 20. All persons between these ages are considered as children. The index for Ebenezer is based upon ages from 5 to 17. This makes the ratio of adult to child population more than it actually is and renders the ability to pay also higher than it should be. According to these figures, Ebenezer's ability to pay for education does not rank high when compared with that of the state. These figures also indicate that Ebenezer is making an effort to support its school. Another way to test a community's ability to pay is to compare school expenditures with other municipal expenditures. Ebenezer had a tax rate of twelve dollars per thousand dollars assessed valuation and raised \$34,981.44 for school purposes in 1926-27. The tax rate for other purposes was \$16.80 per thousand dollars and yielded \$83,955.50. The community used forty-three percent of its taxes for school purposes. In 1924 the percentage of state and local taxes spent for schools was 37.6 for United States and 36.21 for New York State. This shows that the Community spent more than the average percentage of its taxes for school purposes.

In 1926, the value of school property per pupil enrolled was five hundred forty-eight dollars in Ebenezer. According to "Research Bulletin N.E.A. Vol.V, No. 4, September 1927, p.204," the average value per pupil enrolled was one hundred seventy-three dollars for United States and two hundred ninety dollars for New York State in 1925. This shows that Ebenezer has about twice as much school property per pupil as New York State. This justifies the conclusion that the community's effort to support education is great when compared with its ability to pay.

According to "Research Bulletin of the N.E.A. Vol.IV, No. 5, November 1926", the value of property used by public elementary and high schools was 1.2 percent <sup>of the</sup> value of all tangible property in the United States. When the school property of Ebenezer in 1926 - 1927 is compared with the real wealth of the community, it is found that about six percent of its real wealth is used by the public school.

Whether this expenditure is justified can be answered only when compared with the service rendered. The study of expenditures shows a high per pupil cost in the high school department. It is this department that causes the high percentage of cost in general. The three districts of Gardenville, West Seneca and Ebenezer maintain high school departments. These schools are not more than two miles from each other. A study of the two schools supported by Gardenville and by West Seneca would, no doubt, show a similar high per pupil

cost in these departments. The three districts could combine their efforts and establish one high school with enriched curriculum, increased attendance, more efficient service, with the same amount of effort on the part of the taxpayers.

#### SUMMARY

1. Ability of Ebenezer to pay for education is slightly greater than that for the United States and less than that for New York State.
2. The value of school property per pupil is about twice as much as that of New York State.
3. Ebenezer uses a larger percentage of its taxes for school purposes than the United States or New York State.
4. Effort and willingness on part of taxpayers is commendable when compared with ability to pay.
5. Effort of a community must be directed intelligently in order to obtain the greatest return for money expended
6. Since the per pupil cost in the high school department is high, the question of how to reduce this cost should be raised.
7. Three communities, not more than two miles apart are maintaining high school departments in connection with their elementary schools. Not one of them is able to offer service to a large percentage of their children

above the age of fourteen years.

8. With combined effort these communities could establish one high school with enriched curriculum. Such a school would attract a larger percentage of children that now leave school when they reach the age of fourteen years, and would render service to a larger percentage of the population.



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