DEPARTMENT OF THE INTERIOR
BUREAU OF EDUCATION

BULLETIN, 1921, No. 25

A SCHOOL BUILDING PROGRAM FOR ATHENS, GEORGIA

By

ALICE BARROWS FERNANDEZ

SPECIALIST IN INDUSTRIAL AND ECONOMIC RELATIONS
IN EDUCATION
BUREAU OF EDUCATION

WASHINGTON
GOVERNMENT PRINTING OFFICE
1921

ADDITIONAL COPIES
OF THIS PUBLICATION MAY BE PROCURED FROM
THE SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE
WASHINGTON, D. C.
AT
10 CENTS PER COPY

CONTENTS.

A SCHOOL BUILDING PROGRAM FOR ATHENS, GEORGIA.

Athens was the pioneer in bringing higher education to the youth of Georgia. Will it lead in reconstructing its public school plant so as to bring modern educational advantages to the children of the public schools?

This question states the real significance of a school building program for Athens at the present time.[1]

ATHENS AN EDUCATIONAL CENTER.

When the visitor to Athens asks what is the chief industry of the city, the answer is "Education." And the answer is not far wrong, as yet.

Athens did not start as an industrial center. Education, not industry, was the cause of the founding of the town. In 1801 a grant of 600 acres was given to the State by John Milledge for the purpose of establishing "a seat of learning" in Georgia. A site was chosen for the State University of Georgia, said to be one of the oldest State universities in the country; and the town grew up around the university.

This fact has conditioned the character of the town in a number of interesting ways. In the first place, if the town had started as an industrial center, the first building would probably have been erected along the flats by the Oconee River, and then as the town grew the more well-to-do members of the community would have climbed to higher ground, leaving about the river the usual unsightly mixture of old insanitary dwellings jostled by encroaching factories. But the town started with the university, and it started on the heights. The municipal buildings, the post-office, the city hall, and the University of Georgia were all built on a high plateau. Later, the city spread out into four wards. The second ward, running through the city northwest and southeast, represents the original settlement. The first ward, where the factories follow the river, climbs up the east bank of the Oconee River; the fourth ward, now the congested part of the city, extends almost due west from the Oconee River; while the third ward, the newer residential section, spreads out to the south.

Athens is different in spirit from the usual industrial town. Like its namesake, it is beautiful. It has the variety of landscape, the

[1] At the request of the Board of Education of Athens, Ga., the Commissioner of Education detailed Alice Barrows Fernandes, specialist in the United States Bureau of Education, to make a survey of the public schools of Athens, Ga., with a view to working out a building program for the schools of the city. The survey was made in March, 1921. Mrs. Fernandes was assisted in working out the plans of buildings and building costs by Mr. William B. Ittner, consulting architect.

richness of coloring, and the stimulating air that make the Athenians of Georgia love their native city as the Athenians of old loved their city. Again, like its namesake, the city seems to realize the importance of living, not merely the importance of accumulating things. It cares about education; it cares about enriching life.

ATHENS DEVELOPING INTO AN INDUSTRIAL CITY.

But the visitor to Athens can not be there long without realizing that a change is coming over the city, and that this spirit of mellow enjoyment of life, of tolerance, and of interest in ordered living and human progress which goes with, or should go with, the university spirit, is rather what remains of the first period of Athens's history. The real question is what the second period of its history is going to be.

Athens is rapidly becoming an industrial city.[1] It is now the second largest inland cotton market in the State, and it is also the center of a large wholesale business for northeast Georgia. It already has some 30 manufacturing establishments, of which the largest are the 5 textile plants, employing about 720 people. The other manufacturing plants are fertilizers, a compress plant, foundry and machine shop, woodworking shops, brick plant, bottling, bakeries, candy, laundry, oil factories. There are about 200 retail stores. It was impossible to secure the exact number of workers in the different plants, but it was estimated that in the 30 establishments enumerated there were about 1,200 people.

This development of the industrial life of Athens necessarily shifts the emphasis in education, or rather it enlarges its scope. Athens is no longer a university town but a modern industrial city where the question of public education for the mass of children has come to be of as vital importance as the question of university education. The important question before the city is whether it is going to recognize these facts in time and reconstruct its school plant to meet the changed conditions.

SIGNIFICANCE OF A SCHOOL-BUILDING PROGRAM FOR ATHENS.

The real significance of a school building program for Athens at the present time is that it is a challenge to the city to prove whether or not the belief in education upon which the city was founded is virile enough to face the facts of modern life; whether it is scientific enough to recognize that changed social and industrial conditions demand drastic changes in public schools, and that, in order to preserve its leadership in education, the university education of which the city is justly proud must be founded upon a broad, modern, elementary school education.

The educators of Athens have a clean-cut choice before them. They can either let the industrial development of the town grow and

[1] The total population in the whole city in 1920, exclusive of the new territory annexed, was 17,012, an increase of 11.1 per cent in 10 years.

dominate the character of the city, leaving education, as too often happens, in a sort of secluded bypath, a privilege for the few rather than an opportunity for the many, or they can take the initiative now in helping to make the public schools of the city what the public school system in America ought to be—a children's university. The fine spirit of cooperation between the university and the public schools indicates that that choice has already been made.

The fathers and mothers of Athens have the choice of letting their children remain in cramped quarters which will stunt their growth, spiritually, mentally, and physically, or they can demand that their children, the children of all the people; shall have as rich an education as the favored few who are able to survive and go on to a university.

The business men of the city have the choice of letting the present plant continue, getting more and more decrepit, thus necessitating larger and larger expenditures for repairs and additions, or they can enter upon a statesmanlike policy to adopt a permanent building program which will give a modern up-to-date school plant to the city, carrying out as much of it as possible with the present bond issue and the remainder from year to year until the plan is completed.

CONTEMPLATED BOND ISSUE INADEQUATE FOR NEEDS OF SCHOOLS.

The contemplated bond issue of $323,000 is totally inadequate to meet the needs of the public schools of Athens. It is possible, however, to *begin* to meet the needs with that amount. But even that can not be done economically and efficiently except on the basis of a permanent building program, of which the plans for the expenditure of the $323,000 bond issue will be only a part.

This report, then, will describe what the present conditions are in the schools; outline a permanent building program which will take care of congestion and provide for growth over a period of at least 10 years; outline in detail what part of this program can be carried out with the $323,000 bond issue; and show that it is financially possible for Athens to carry out the permanent building program in the near future.

PRESENT CONDITIONS IN THE PUBLIC SCHOOLS.

The condition of the public school buildings in Athens is deplorable.

Athens is to be congratulated upon the fine, progressive spirit of its superintendent, board of education, and teaching force. They are doing their best to give progressive education to the children, but they are trying to do it in the face of almost insuperable obstacles in the way of buildings and equipment. It is impossible to make bricks without straw. It is equally impossible to carry out the precepts of modern education to "give children the opportunity for self expression," to teach them to "learn by doing," etc., when there is nothing with which to do or make things, nothing but school seats, and not a sufficient number of them.

TABLE 1.—*Original capacity of the public schools of Athens; net enrollment in 1910–11 and in 1919–20; per cent of increase in enrollment 1910–11 to 1919–20; number of regular classrooms available; total classrooms required; excess of rooms required over those available; special activities.*

Schools.	Date of erection.	Grades.	Enrollment: Original capacity of school.	Net enrollment: In 1910–11.	Net enrollment: In 1913–14.	Net enrollment: In 1919–20.	Excess of pupils in 1919–20 over seating capacity of school.	Per cent increase 1910–1920.	Regular activities: Number of regular classrooms.	Total number of classrooms required.	Excess of classrooms required over those available.	Auditorium: Built for purpose.	Auditorium: Classroom used.	Gymnasium: Built for purpose.	Gymnasium: Classroom used.	Shops: Manual training.	Shops: Other.	Commercial room.	Cooking room.	Sewing room.	Drawing room.	Music room.	Science: Nature study.	Science: Chemistry.	Science: Physics.	Library.	Principal's office.	Teachers' rest room.	Other rooms.	Playground outdoor (square feet): Total square feet.	Per child.
ELEMENTARY SCHOOLS.																															
White:																															
Baxter Street	1887	1–7	280	270	292	305	25	12.9	7	8	1	....	....	....	....	....	....	....	[1]1	....	....	....	....	....	....	....	....	....	....	42,600	139
Childs Street	1909	1–7	320	243	278	410	90	23.7	8	11	3	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	[2]2	48,759	118
College Avenue	1908	1–7	480	425	497	429	[3]51		12	11	[3]1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	19,539	42
Oconee Street	1908	1–6	240	139	221	250	10	79.9	6	7	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	18,300	73
Nantahala Avenue	1907	1–5	160	157	181	220	60	40.1	[4]4	6	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	[2]1	34,206	165
Total	....	....	1,480	1,234	1,469	1,614	134	30.7	37	43	6	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	2	....	....	163,404	101
Negro:																															
East Athens	1891	1–5	240	350	362	429	189	22.5	6	11	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	25,974	60
West Athens	1891	1–5	240	456	221	[5]291	51	[5]56.7	6	8	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	27,600	[6]69
Newtown	....	1–5	160	....	209	182	22	100.0	4	5	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6,930	38
Reese Street	1913	[7]5, 6, 7	[7]120	....	338	163	43	100.0	3	4	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	([8])	....
Total	....	....	760	806	1,130	1,065	305	32.1	19	28	9	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	69,331	61
Total elementary	....	....	2,240	2,040	2,599	2,679	439	31.3	56	71	15	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	2	....	....	....	....
HIGH SCHOOLS.																															
White:																															
Athens High School	....	8–11	....	165	254	345	....	109.0	8	....	....	....	1	1	....	[9]2	....	2	1	2	....	....	....	1	1	1	1	....	....	....	....
Negro:																															
High and Industrial	1913	[7]8–11	....	....	50	111	....	100.0	4	....	....	....	([10])	....	....	[11]1	([12])	....	[13]1	[13]1	....	....	....	1	....	....	[14]1	....	....	8,827	22
Grand total	....	....	....	2,202	2,903	3,137	....	42.4	....	....	....	....	1	1	....	3	....	2	4	3	....	....	....	2	1	1	4	....	....	....	....

[1] One of the classrooms is used as a cooking room.
[2] A room in the basement is used as a classroom.
[3] Decrease.
[4] Two rooms which are under size are counted as one.
[5] On the basis of the 1921 enrollment, 400 pupils.
[6] On basis of 1921 enrollment.
[7] The elementary grades (5, 6, 7) and the high-school grades (8, 9, 10, 11) are in one building. Estimating a room to a class, 4 rooms for the present enrollment would have to be set aside for the elementary grades.
[8] See high and industrial school.
[9] A former jail has been converted into a manual training shop of 2 rooms.
[10] Two rooms have a movable partition, which when drawn convert the 2 rooms into a make-shift auditorium.
[11] One small room in the basement.
[12] There are 4 classes in the evening school, for which temporary quarters have been secured in garages and shops around the city, as there is no room for them in the school.
[13] In a remodeled house on the grounds.
[14] Part of the porch has been partitioned off for a principal's office.

SCHOOLS BADLY CONGESTED—439 MORE CHILDREN THAN SCHOOL SEATS.

The schools are badly congested. There are five white elementary schools and one white high school. There are three Negro elementary schools and one combination elementary and high school. In the white elementary schools there are 1,614 children and 1,480 school seats, 134 more children than there are seats. In the Negro schools there are 1,065 children and 760 school seats, 305 more children than there are school seats.[1] In other words, 16.4 per cent of all the elementary school children were without school seats in 1920. They went to school and somehow seats were found for them. But it means that there were too many children in a room; that some children attended school only in the morning and some only in the afternoon; that they had to sit in overcrowded rooms with bad air, and subject to all the evils of overcrowding; and that in some cases children were studying in the corridors with screens used in the sorry attempt to convert a corridor into a classroom.

TABLE 2.—*Number of teachers per school in 1919–20.*

Schools.	Special																
	Principals.	Regular teachers.	Chemistry.	Physics.	Physical training.	Commercial.	Domestic science and arts.	Manual training.	Band.	Military tactics.	Music.	Drawing.	Librarian.	Total regular.	Total special.	Total principals.	Grand total.
ELEMENTARY.																	
White:																	
Baxter Street	1	6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Childs Street	1	17	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
College Avenue	1	10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Oconee Street	1	6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Nantahala Avenue	1	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	5	44	....	....	....	....	....	....	....	....	....	....	....	44	....	5	49
Negro:																	
East Athens	1	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
West Athens	1	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Newtown	1	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Reese Street		4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Total	3	16	....	....	....	....	....	....	....	....	....	....	....	16	....	3	19
Total elementary	8	60	....	....	....	....	....	....	....	....	....	....	....	60	....	8	68
HIGH SCHOOLS.																	
White: Athens High School	1	8	1	....	2	1	2	1	1	1	....	....	....	8	6	1	15
Negro: High and Industrial	1	4	1	....	....	....	1	1	1	....	....	....	....	4	4	1	9
Grand total	10	72	2	....	2	1	3	2	2	1	....	....	....	72	13	10	95

[1] See Table 1, showing original capacity of the public schools of Athens, Ga.; net enrollment 1910–11 and 1919–20; per cent of increase in enrollment 1910–1920; number of regular classrooms available; total classrooms required; excess of rooms required over those available; number of special activities.

And the congestion is going to be worse as time goes on. The enrollment in all the schools increased from 2,202 in 1910 to 3,137 in 1920, an increase of 42.4 per cent in 10 years. Yet there has been no new elementary school building for 12 years. This means that a building program must not only eliminate the congestion which has developed in the last 10 years, but also provide for a growth of 42 per cent in the next 10 years.

NO MODERN SCHOOL FACILITIES IN THE ELEMENTARY SCHOOLS.

Classroom congestion is sufficiently undesirable, but when, in addition, there is no opportunity for healthful work and play in shops and playrooms and auditoriums and laboratories, the situation becomes a menace to the health and morals and intellectual growth of the children. Yet there are almost no special facilities in the elementary schools of Athens.[4] There is not a single auditorium, and there are only two special activity rooms in all the white elementary schools—one cooking room in the Charles Street School and one in the College Avenue School. There is a cooking room in Baxter School, but it is nothing but a classroom with some meager cooking equipment. In Nantahala School a closet is used as a cooking room, and in Oconee part of a hall has been partitioned off in the attempt to develop this work. These attempts show the desire of the principals and teachers to give some special work to the children, but the space and the equipment are pathetically inadequate.

There are no science rooms in any of the elementary schools, no shops, no drawing rooms, no music rooms, no libraries, no gymnasiums. There are only two principals' offices in all of the eight elementary schools, and there are no teachers' rest rooms in any of the schools.

THE HIGH SCHOOLS.

The facts as given on the chart as to the Athens High School are misleading.[5] As a matter of fact, the building is entirely unsuited to school purposes, and only the fine spirit of the principal and teachers makes it possible to carry on the work effectively. The building was originally a courthouse. It is not fireproof. It is badly constructed. The ceilings are so high that it is expensive to heat, and the windows are so narrow that the lighting is very bad. But there are only 345 children in the high school, and there are 1,614 children in the elementary schools. And the elementary school children do not have even the special facilities that exist in the high school. Therefore it is obvious that the needs of the elementary school children should be taken care of first.

[4] See Table 1.

The High and Industrial School for Negroes is utterly inadequate for the number of pupils enrolled and for the type of work that is being carried on there. As a matter of fact, this school is carrying a triple load, for it includes an elementary school, a high school, and a night trade school. Yet the building is only a frame structure of the 8-classroom type, with a cottage for the domestic-science work. When the fact is considered that there is being taught in this school at present the regular academic work, together with science, shopwork, and domestic science, and that, in addition, courses in carpentry, blacksmithing, plastering, brick masonry, automechanics, and nurse training are being given in the trade school, and that there is such a demand for this work that garages and shops in the city have to be rented to carry on the work in the evening, it is clear that the type of work being done in this school has far outgrown the building and equipment.

To sum up, in a school system of 3,137 children, there is only 1 auditorium, 1 gymnasium, 3 manual training shops, 2 commercial rooms, 4 cooking rooms, 3 sewing rooms, and 3 science rooms. And all of these special facilities, with the exception of 2 cooking rooms, are in the 2 high schools.

WORK AND PLAY AS NECESSARY AS STUDY.

The seriousness of this lack of modern educational facilities can only be understood when it is realized that work and play are as essential in education as opportunity for study in classrooms. No child was ever educated by study alone. All children have always been educated by three things—work and study and play. If they are deprived of any one of these, their education is incomplete. But children in modern cities are being deprived of two of these essential elements in their education, i. e., work and play.

It is difficult for adults who have been brought up in the country, in a simpler environment, to realize what a revolution has taken place in the conditions surrounding children's lives. It is difficult for them to realize that the days of the little red schoolhouse have gone forever. Everyone knows, when he stops to think about it, that school does not necessarily spell education. A child's "education" begins each day from the moment he gets up in the morning until he goes to bed at night. Some of this education he gets in school, some of it he gets outside of school. But the kind of education which the child of to-day gets outside of school is very different from what he received 50 years ago outside of school, while the education which he receives in school has remained much the same. Fifty years ago he began the day by doing chores about the farm, taking care of the animals, mending a piece of harness or part of a wagon. Then he went to school and got the "book learning" that he could not get at home,

and after school he played in the fields or stopped in at some blacksmith shop or carpenter shop and watched a friend at work and learned to handle tools himself. All this work on the farm and in the small shops was education, and the schoolhouse simply supplemented it. Furthermore, it was this first-hand knowledge of life and this opportunity to experiment, to learn to handle tools, to invent new ways of doing things, which developed the independence and initiative, the mechanical knack and resourcefulness, that have given this nation much of its inventive genius.

But times have changed. At the present time 50 per cent of the population of the country live in cities, and the city is an extremely poor place in which to rear children, chiefly because it deprives them of the opportunity for healthful work and play. There is little work of educational value to be done about a city home. On the contrary, the whole tendency in the city is to have as much work as possible done outside the home. There is no harvesting and planting to be done, few, if any, animals to be taken care of; and it is a rare city home that has a workshop or tools or laboratory in which children may experiment.

But the city not only fails to educate children in the right direction; it educates them in the wrong direction. With the majority of children the street becomes their only playground, and the street is a most effective teacher in all the vicious and sordid side of a city's life. There is probably no greater menace to the health of the children of this country—physical, mental, and moral—than our failure to realize the vital necessity of play for children. The average adult apparently looks upon play as recreation merely, something to indulge in after the serious business of life is over for the day, something that one is a little ashamed to give much time to, until perhaps ill health forces one to give time to it. Possibly because of the stress and speed at which life is lived to-day, the fact has been forgotten that play is not merely recreation, not a luxury, but a *necessity* for children if they are to grow in strength and health and mental keenness.

Children in the public schools all over the country get practically no time for play until 3 o'clock in the afternoon. Ten minutes' recess in the morning and a few minutes in the afternoon is not play, it is literally a "recess" from sitting in school seats. And Athens is like every other city in this respect. But Athens, at least, has the authority and inspiration of her namesake for a better custom. To the Greeks, play was of the first importance in their scheme of education. The Athenians, whose achievements in art, literature, education, and the art of living have never been surpassed, realized that play was the foundation of physical health and intellectual power. Yet in the modern Athens of Georgia there is no public playground, and there is practically no opportunity for children to play during

school hours. It were well if the modern Athenians took to heart the words of Socrates in regard to the place of play in education, when he says in *The Republic:* [6]

Can there be anything better for a State than that it should contain the best possible men and women?

There can not.

And this result will be brought about by music and gymnastics employed as we described?

Undoubtedly.

THE CITY SCHOOL MUST PROVIDE OPPORTUNITY FOR THE WORK AND PLAY WHICH THE HOME CAN NO LONGER PROVIDE.

Since the city is doubtless here to stay, it is imperative that the school return to children the opportunity for the work and play which the home no longer supplies, and which is absolutely essential for the healthy growth of children. For these reasons it has come to be recognized that every modern school must have not only classrooms but also an auditorium, gymnasium, shops, laboratories, cooking rooms, sewing rooms, drawing and music rooms, where children may be kept wholesomely busy all day long.

What Athens needs is a building program which will not only eliminate congestion and give adequate classroom facilities, but which will also provide the special facilities for work and play.

But how is Athens to develop a building program which will not only furnish sufficient classrooms but also provide the other modern educational facilities, and do it within the financial limits of the city?

THE BALANCED LOAD PLAN VERSUS THE PEAK LOAD.

There are two chief methods of accomplishing this. One is by the traditional type of school organization, or the peak-load type; and the other is the work-study-play plan, or balanced-load type.

The traditional type of school organization attempts to solve the situation by the usual custom of providing a seat in a classroom for every pupil, which that pupil has for his exclusive use. All children are expected to be in school seats at the same time, and if provision is made for such special facilities as auditoriums, gymnasiums, laboratories, and workshops, they have to be erected in addition to a classroom for every class, and when the pupils go to the special rooms the classrooms are vacant. This means that the addition of these special facilities which are essential in a modern school plant add, under the traditional plan, fully 60 per cent to the cubical content of the building.

This is what is commonly known in business as the "peak-load type" of organization because the load is not distributed, but, on

[6] The Republic of Plato, Book V.

the contrary, tends to concentrate at any moment in one part of the building, e. g., the classrooms, and when the children leave the classrooms to go into the special facilities the load is transferred, leaving the classrooms vacant. Obviously, if Athens has to supply not only these special modern educational facilities, but a school seat for every child, the expense will be prohibitive. The question for Athens, then, is how the school system can be rehabilitated to furnish larger educational opportunities and at the same time effect the economies which will bring the building program within the financial resources of the city?

It is evident that the solution of the problem must be found in the increased use of school accommodations and more skillful school planning. Both are possible by skillful organization and administration. Fortunately, there is a method of school organization which has demonstrated its ability to effect these results, namely, the work-study-play plan, or balanced-load type.

This plan developed in an attempt to solve the peculiar school problems created by the modern city, and it is now in operation in the public schools in some 30 or 40 cities in the country.[1] It grew out of a recognition of the fact that, as is the case in Athens, the growth of city conditions makes the educational problem far more difficult than formerly; in fact, has created a new school problem. The plan represents an attempt to make it practicable, both administratively and financially, for school administrators to provide not only classroom accommodations, but also such modern educational facilities as gymnasiums, auditoriums, shops, and laboratories, where children may be kept wholesomely occupied in study and work and play.

THE WORK-STUDY-PLAY, OR BALANCED-LOAD, PLAN.

Under the work-study-plan the load is balanced so that half the children are in classrooms while the other half are at work and play. For example, a school is divided into two parts, each having the same number of classes and each containing all the eight or nine grades. The first part, which we will call the "A school," comes to school in the morning, say, at 8.30, and goes to classrooms for academic work. While this school is in the classrooms it obviously can not use any of the special facilities, therefore the other school—B school—goes to the special activities, one-third to the auditorium, one-third to the playground, and one-third is divided among such activities as the shops, laboratories, drawing and music studios. At the end of one or two periods—that is, when the first group of children has remained,

[1] For example, Detroit, Mich., has 16 public schools on the work-study-play plan, and has just adopted a program for putting all the schools in the city on the plan. Pittsburgh, Pa., has 6 schools on the plan; Passaic, N. J., has 2; Newark, N. J., has 9; Troy, N. Y., has 1; and Newcastle, Pa., has 4. Wheeling, W. Va., Kalamazoo, Mich., Sewickley, Pa., and Swarthmore, Pa., are running all their schools on the plan. For information regarding attitude of school superintendents in these cities toward the plan, see Appendix I.

according to the judgment of the school authorities, in school seats as long as is good for them at one time—the A school goes to the playground, auditorium, and other special facilities, while the B school goes to the classrooms. Chart I shows how the load is balanced so that half the children are in classrooms while the other half are working and playing.[8]

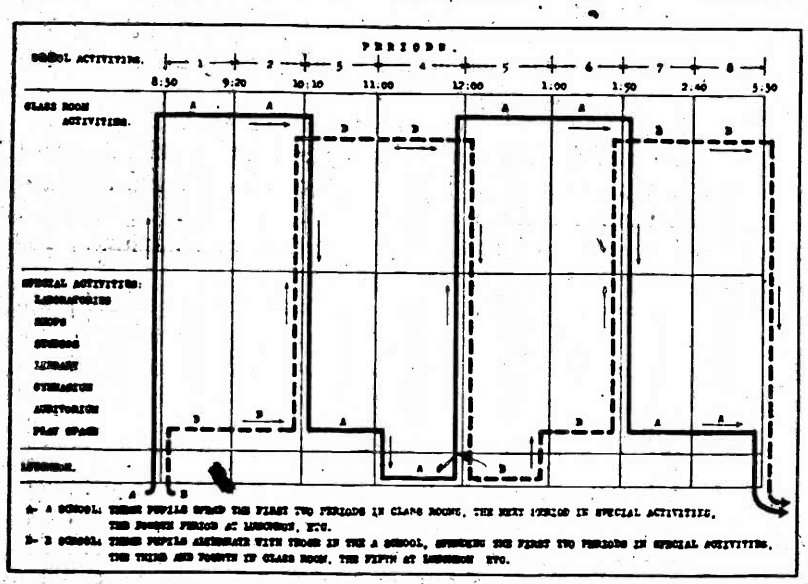


CHART I.—Balanced load-plan of school organization by which half the school is in classrooms while the other half is at work and play.

The following is one type of program that may be used. In this program each school (A and B) is divided into three divisions: Division 1, upper grades; division 2, intermediate grades; division 3, primary grades.[9]

The "A School."

School hours.	Regular activities.	Special activities.		
	Academic instruction.	Auditorium.	Play and physical training.	Cooking, shop, science, etc.
8.30- 9.20	Arithmetic—Divisions 1, 2, 3			
9.20-10.10	Language—Divisions 1, 2, 3			
10.10-11.00		Division 1	Division 3	Division 2.
11.00-12.00	(Entire "A School" at luncheon.)			
12.00- 1.00	Reading—Divisions 1, 2, 3			
1.00- 1.50	History and geography—Divisions 1, 2, 3			
1.50- 2.40		Division 3	Division 2	Division 1.
2.40- 3.30		Division 2	Division 3	Do.

[8] See Chart I.
[9] For other types of programs see Appendix II.

The "B School."

School hours.	Regular activities.	Special activities.		
	Academic instruction.	Auditorium.	Play and physical training.	Cooking, shop, science, etc.
8.30– 9.20				
9.20–10.10		Division 2	Division 3	Division 1.
10.10–11.00	Arithmetic—Divisions 1, 2, 3	Division 3	Division 2	Do.
11.00–12.00	Language—Divisions 1, 2, 3			
12.00– 1.00	(Entire "B School" at luncheon.)			
1.00– 1.50				
1.50– 2.40	Reading—Divisions 1, 2, 3	Division 1	Division 3	Division 2.
2.40– 3.30	History and geography—Divisions 1, 2, 3			

PRINCIPLE OF MULTIPLE USE MAKES MODERN EDUCATIONAL FACILITIES FINANCIALLY PRACTICABLE.

In other words, the work-study-play plan applies to the public school the principle on which all other public service institutions attempt to run, i. e., the principle of multiple use of facilities. The whole tendency in modern public utilities is to eliminate the peak load by using all facilities all the time; and the utility becomes more efficient and accommodates a larger number of people at less cost to the extent to which it balances its load. For example, it is evident that our transportation system is made possible because all people do not have to ride at exactly the same time. Public parks can be maintained by the city because they are not reserved for the exclusive use of any individual or group; the larger the city, and therefore the larger the number of people supporting them, the more extensive and beautiful the parks can be made. Hotels can accommodate thousands of people because they are not run on the principle of reserving each room for the exclusive use of a single individual during the entire year.

On the contrary, our public-school system up to the present time has been run on the principle of reserving a school seat for the exclusive use of one child during the entire year. All children have to be in school seats from 9 a. m. to 12 and from 1 to 3, and at 3 o'clock all of them are dismissed and turned out to play. The result is that there are never enough seats for all the children to study in, nor enough playgrounds for them to play in; and yet large sums of money are invested in these facilities, which the children can have the use of for only a fraction of the day. For example, thousands of dollars are invested in school auditoriums, and yet the average school auditorium is used regularly only 15 minutes a day. Thousands of dollars are invested in playgrounds, and yet these playgrounds are empty of children all day until 3 o'clock in the afternoon. In fact, if a child is found on the playground before 3 o'clock he is

driven off because he is playing truant. Obviously, the playgrounds exist for the use of the children, and yet children have the opportunity to use them only a few hours a day, because they must be in school seats from 9 to 12 and 1 to 3. Thousands of dollars are invested in school shops and science laboratories, and yet practically no child in the elementary schools has the opportunity to enter them until the seventh grade, and then for only a few minutes a week. Half the children in the country leave school before they reach the seventh grade.

There would, after all, seem to be no good reason why the principle of other public service institutions, i. e., multiple use of facilities all the time, should not apply to the school, nor any reason why all children should be in classrooms at the same time, nor why the special facilities should be used only a fraction of the day, provided, of course, that the children receive during the day the required amount of academic work. In fact, it is difficult to see how the problem of providing enough classrooms or playgrounds or auditoriums for the mass of children is ever to be met if all children have to be in classrooms at the same time and if all children have to play at once. Moreover, there seems to be no good reason from an educational standpoint why children should all have to do the same thing at the same time.

Fortunately, if the principle of multiple use is applied to public school facilities it is financially possible to provide not only adequate classroom accommodations, but also auditoriums, gymnasiums, laboratories, and shops for the mass of children. In fact, accommodations may be provided in all facilities, if they are in use constantly by alternating groups, at less cost than regular classrooms may be provided on the basis of a reserved seat for every child. For example, in a 50-class school, under the traditional plan, 50 classrooms are needed in addition to all other special facilities. Under the work-study-play plan only 25 classrooms are needed. Therefore, under this plan the cost of 25 additional classrooms is eliminated. The average cost of a classroom at the present time is $12,000. Since only half the usual number of classrooms is required under the work-study-play plan, i. e., 25 classrooms in a 50-class school, the cost of the remainder is released for all the other special facilities. Chart II shows the waste in cubic feet, in cost, and in capacity in a building run on the traditional as compared with the same building organized on the work-study-play plan.

EDUCATIONAL ADVANTAGE OF THE PLAN—AN ENRICHED CURRICULUM.

The important point about the balanced-load plan, however, is not its economy, but the fact that it makes possible an enriched education for children. Under this plan the children not only have

A. TRADITIONAL PLAN OF SCHOOL ORGANIZATION.

I. Utilization of site

Use	Out door play ground.	Building	
number of square ft.	100 x 300		
per pupil.	15		
Distribution of pupils	No pupils.	2,000	
Hours per day.		5	

II. Utilization of building.

1,800,000 cubic feet – cost @ 750,000 — 400,000 sq. ft.

Use	Hours	Halls. Stairs. Toilets.	Gym-nasi-ums.	Audi-tori-ums.	14 special rooms.	50 classrooms.	
Cubic capacity.	75,000	272,000			330,000	716,000	Waste
Percent of building.	5.8	15.1	10.1	11.7	19.4	39.8	
Distribution of pupils			No pupils.	No pupils.	No pupils.	2,000	
Hours in use.						5	

B. WORK-STUDY-PLAY PLAN – NO WASTE.

I Utilization of building.

1,600,000 cubic feet - cost $800,000

Use.	Hours	Halls. Stairs. Toilets.	Gym-nasi-ums.	Audi-tori-ums.	14 special rooms.	25 class-rooms.
Cubic feet	75,000	224,000	224,000	224,000	336,000	336,000
Percent of building.	4.0	14.0	13.0	15.0	25.0	29.0
Distribution of pupils.			80	200	480	1,000
Hours in use.			6	6	6	6

II. Utilization of site.

Use	Out door play ground.	Building
number of square ft.	100 X 300	250X175
per pupil.	200	
Distribution of pupils	160	2,000 1,840
Hours per day.	6	6

CHART II.—Showing the waste of building space under the traditional plan of school organization as compared with the utilization of all space all the time under the work-study-play plan, or balanced load plan.

Total number of pupils under either plan, 2,000.

Under the work-study-play plan, 1,000 pupils are in classrooms while 1,000 pupils are in special facilities.

Under the traditional plan, all pupils are in classrooms at the same time, and when they go to the special facilities, the classrooms lie idle. For example, if any of the 2,000 pupils in classrooms go to the auditorium, the classrooms of those pupils remain vacant. What good is a vacant classroom to a child?

What good is an empty playground or auditorium or shop or laboratory to a child?

the same amount of time for reading, writing, arithmetic, geography, and history as formerly, 210 minutes, but also 50 minutes of play every day, 50 minutes of auditorium a day, and 50 minutes of shopwork every day in the week for a third of the year; science every day for a third of a year; and drawing and music every day for a third of a year.[10] At present, children get in most schools a 10-minute recess period for play, a few minutes for opening exercises in the auditorium, and little or no time for special activities.

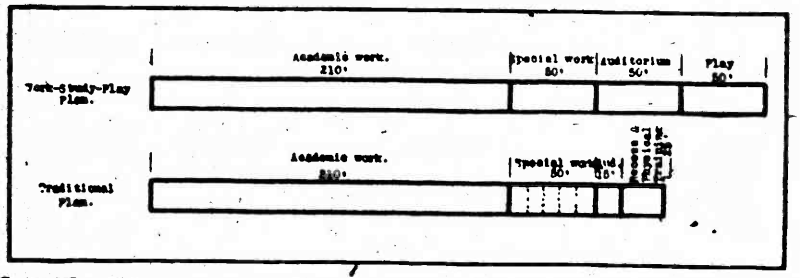


CHART III.—Daily allotments of time for academic work, special work, auditorium, and play, under the traditional plan and under the work-study-play plan of school organization.

EXPLANATION OF CHART III.

Academic Work:

In the *traditional school*, 210 minutes are given to reading, writing, arithmetic, geography, and history every day.

In the *work-study-play school*, 210 minutes are given to reading, writing, arithmetic, geography, and history every day.

Play:

In the *traditional school*, 25 minutes are given every day to recess, physical training, physiology, and hygiene.

In the *work-study-play school*, 50 minutes a day every day are given to play.

Special Activities:

In the *traditional school* 50 minutes are divided between 4 or 5 special subjects—drawing, music, shop, sewing, etc.—2 periods a week to some special subjects, and a few minutes a day to others.

In the *work-study-play school*, the year may be divided in 3 parts, and each child receives 50 minutes of science every day for a third of the year; 50 minutes of shopwork every day for a third of the year; and 50 minutes of music and drawing every day for a third of the year. Or these special subjects can be alternated by days, weeks, or months.

FLEXIBILITY OF THE PROGRAM MEETS INDIVIDUAL NEEDS OF CHILDREN.

A program based upon the multiple use of facilities also makes it possible to have a flexible program. After all, schools were created for children and not children for the schools, and it should be possible to adapt the program to meet the needs of individual children instead of making children conform to the program, as is too often the case. A study of the different types of work-study-play schools in different parts of the country shows that it is possible to adapt the program to the needs of different types of children and different types of communities.

[10] See Chart III showing allotment of time for academic work, play, auditorium, and special work.

For example, a child who is backward in a special subject, such as arithmetic, and is being held back in a grade because he can not master that subject, and is growing discouraged because he has to repeat the whole year's work, can double up in arithmetic for a number of weeks by omitting the auditorium period until he has made up the work and is ready to go on with his grade in that subject. In the meantime he has not been held back in other subjects, but has progressed as rapidly in them as he is able to. Or if a child has a particular talent in some subject, he can, under this program, double his time in that subject by omitting his auditorium period a number of times a week and yet not lose any time from his regular work.

Again, it is possible to adjust the time of beginning or leaving school to meet the desires of parents. For example, it is possible to arrange to have the school begin at 8.30, 8.45, or 9 a. m., or any other hour desired. Or if the school begins at 8.30 and certain parents object to having their children leave for school so early, it is possible to put these children in the "B School," which begins the day with special activities; in this case the children can omit the play period or auditorium from 8.30 to 9.20 and arrive at school at 9.20. Or, again, many parents prefer to have their children take special music lessons after school. It often happens that home work or staying after school interferes with these lessons. Under the work-study-play plan it is possible to put such children in the "A School" and let them omit the play period or the auditorium in the afternoon from 2.40 to 3.30 p. m.[11] There is, of course, no reason why children should not be given credit for these out-of-school activities if so desired. As for the special facilities in school, each community and each section of the city can have the special facilities which the school authorities and the parents desire.

THE SCHOOL TAKES OVER THE STREET TIME OF THE CHILD.

As has been pointed out, one of the most undesirable elements in the life of city children is the street life in which they have hitherto spent so large a part of their time. The average city school is in session about 180 days in the year. Obviously, because of conditions of modern city life, it is necessary that the school take over some of the time now spent by the child on the city streets, especially during the school year. At present if 10 hours of the 24 are allowed for sleep and 6 for meals and home duties, there still remain 8 hours to

[11] The school day in Athens—9 a. m. to 2 p. m.—is altogether too short, for it leaves the children on the streets for practically half of every day. It is questionable whether it would be desirable to lengthen the day if it meant keeping children in school seats any longer, but in a work-study-play school the additional hours are spent in playgrounds, shops, laboratories, and auditoriums, which means that wholesome activity in play and in work is substituted for desultory loafing upon the city streets.

be accounted for. Even if the children were in school 5 hours every day, there would still be 3 hours left, and as is well known these hours are spent on the city streets, and not to the child's advantage. At least one or two of these should be taken over by the school, and wholesome activity in work and play provided.

The work-study-play plan does this by lengthening the school day an hour or two, as each community may desire, and by offering to the children the wholesome activity in shops and laboratories and on the playgrounds, which is so essential for them. It should be borne in mind, however, that this lengthening of the school day does not necessarily lengthen the number of teaching hours of any teacher. It is necessary that she be at the school 6 hours, but she need not teach more than 5 hours.

PRINCIPLES UPON WHICH THE PROPOSED BUILDING PROGRAM HAS BEEN WORKED OUT.

In planning the school building program for Athens the following aims have been kept in view:

First, to relieve existing congestion, and provide for growth for a period of at least 10 years.

Second, to consolidate the present small and inadequate plants into a small number of modern, up-to-date school buildings with adequate playgrounds, thus providing for the maximum educational opportunities for children as well as for community uses of the plant.

Like most cities, Athens is laboring under the handicap of having too many small buildings. Many small buildings are more expensive than a few large modern plants. They are more expensive in cost of upkeep as well as in initial cost. They also provide fewer modern facilities for the children. The larger the school within limits, the more economical it becomes and the richer the facilities that can be offered to children. A school of 1,200 pupils can afford such facilities as an auditorium, shops, gymnasium, laboratories, etc., whereas if the children were housed in two school buildings with separate sites, equipment, teaching force, janitorial service, and cost of upkeep, the total expense would be far greater. For example, a glance at Table 3 shows that the Athens public schools have spent during the past 10 years (1910–11 to 1919–20) $50,120 on repairs, fuel and light, furniture and equipment, maintenance of grounds, and rent account. Of this amount, $20,446 is for repairs alone, and the item for repairs in 1919–20 was twelve times as much as it was in 1910–11. These items are not given by schools, but if they were it would doubtless be found that the greatest expense for repairs was in the oldest schools. In other words, the maintenance of many old and decrepit plants is a waste of money.

TABLE 3.—*Cost of repairs, fuel and light, furniture and equipment, maintenance of grounds, rent account for public schools, by years, from 1910–11 to 1919–20, inclusive.*

	1910–11	1911–12	1912–13	1913–14	1914–15	1915–16	1916–17	1917–18	1918–19	1919–20	Total.
Repairs	$531	$1,200	$1,220	$1,265	$1,420	$1,979	$2,286	$1,956	$2,092	$6,361	$20,448
Fuel and light	1,176	33	1,213	1,150	1,585	1,500	1,571	2,859	2,943	2,653	16,373
Furniture and equipment	1,397	445	1,371	629	756	986	1,917	1,144	468	692	9,804
Maintenance of grounds	.....	.....	.....	134	194	.....	22	56	7	.....	412
Rents account	.....	961	382	304	247	240	240	220	240	240	3,168
Total	3,104	2,639	4,295	3,542	4,211	4,707	6,035	5,734	5,797	9,986	50,120

As a matter of fact, Athens has barely enough children in all the white schools for one good-sized building, and the same is true of the Negro schools, but owing to the geographical conditions of the city it will doubtless be necessary to have at least one school for whites on the east side of the Oconee River and one on the west side. The same is true for the Negro schools. In the detailed building program, however, two alternate plans are given, the first providing for two schools for whites and two for Negroes, and the second plan providing for three each.

Third, the aim has been to work out a building program which will give modern school facilities to *all the children* in the public school system. Too often there is a tendency in communities to invest all the available funds in one or two buildings which can be used only by a minority of the children. This is neither democratic nor fair to the children of the city. The city's funds should be so spent that all children would receive an increase in the opportunity for a modern, all-round education. This is not only important from an educational standpoint; but is the most economical plan in the end, for if old buildings are allowed to continue without additions or improvements, far more money has to be spent on them in the end than if they had been renovated in time.

Fourth, two building programs are submitted. The first is a permanent building program, which shows what ought to be done in order to provide adequate modern school buildings and equipment. This building program, however, requires more funds than are available with the present contemplated bond issue of $323,000. Therefore, a second building program has been outlined showing what it is possible to do with the bond issue of $323,000.

It should be clearly understood that the permanent building program is not simply an idealistic outline of what it would be desirable to give the children of Athens, but that it is a program which it is financially possible for Athens to carry out if it is spread over a period of years. And the building program for the bond issue is planned to carry out as much as possible of the permanent building program at the present time. It is one thing to spend

$323,000 to meet immediate needs with no consideration of the future; it is another to spend that amount as part of a statesmanlike plan for developing a modern school plant in the city. It is felt that Athens will not be satisfied with anything short of such a plan.

Fifth, the cost of the program has been worked out after careful study of building costs, not only in Athens but in the country as a whole. Furthermore, the costs have been estimated on the basis of actual drawings for the type of building recommended.

The present building costs are about 35 cents per cubic foot. It is estimated that soon they will be down to 30 cents per cubic foot. This makes the classroom cost of a building $12,000 per classroom unit. "Classroom unit costs" include not only the cost of classrooms but of gymnasiums and auditoriums, corridors, stairs, principal's office, teachers' rest room, toilets. When additions are erected the classroom cost is about $10,000, and the auditorium and gymnasium are estimated separately. In cases where the addition is attached to the school the cost has been given in accordance with the actual drawing and cubic foot cost.

THE IMPORTANCE OF EQUIPMENT.

The cost of equipment is based upon the most recent information of cost of equipment for each different kind of activity. The importance of providing modern equipment can not be too strongly emphasized. Up to the present time Athens in erecting its most recent building has made the mistake of providing only enough funds for the shell of the building and almost no funds for equipment. This is comparable to erecting a factory for turning out automobiles and providing no funds for machines or tools. It is futile to provide workshops for children without providing tools for them to use in the workshop; furthermore, an inadequate supply of tools is only a handicap and an exasperation.

IMPORTANCE OF FIREPROOF BUILDINGS.

The estimates of the cost of buildings will probably come as a surprise and a shock to many citizens. This is because Athens up to the present time has not been in the habit of erecting fireproof buildings for her children. She can not afford, however, not to change that policy. Great care is taken nowadays that modern office buildings in which adults work should be of fireproof construction. For example, one of the most recent office buildings erected in Athens is of that type, and cost over $300,000. All modern factories are fireproof. A hospital just erected in Athens is fireproof and cost some $300,000. A church recently erected cost $200,000. Just around the corner from the board of education is a fine, modern, fireproof building for making ice cream, which cost $50,000. Yet

there is not a public school building in Athens that cost $50,000. Isn't the safety of 3,000 children as important as that of people who work in office buildings? Isn't it as important to protect children before they have to be sent to hospitals as after they arrive there? Isn't the preservation of children's lives and health as important as the preservation of cotton or ice cream?

Of course these questions answer themselves, and there is no community that would be quicker to answer in the affirmative than Athens, but like many cities it has up to the present time simply failed to realize that its children are no longer in little red schoolhouses, and that it must be prepared to spend as much on its school buildings as on its office buildings and factories.

The estimates given represent the amount being spent on school buildings in the country as a whole.

The aim in working out this building program has been to make it practicable for Athens to carry it out. One of the greatest difficulties in carrying out a modern school building program is that the average citizen does not visualize the modern type of school. Therefore the floor plans of such a school are given in Exhibits A and B.

One of the advantages of the type of building recommended is that it can be put up gradually; that is, one floor can be erected and later a second added; or the whole of the first floor, with the exception of the gymnasium and auditorium, can be erected and these two facilities can be added later; or merely the outer perimeter of the first floor can be erected and the gymnasium, auditorium, domestic science and workshop added later. This means that, in the building program for the bond issue, it is possible to start three modern buildings instead of putting all the money into one.[13]

In the program recommended for the bond issue a certain number of portable additions are recommended, owing to the fact that the bond issue does not provide adequate funds for the complete building program. Two things should be clearly understood, however, about these portables. In the first place they are not of the usual type, but are of a modern, sanitary type that can be secured in separate units and combined into one building if so desired. It is possible to secure a classroom type, or an auditorium fully equipped, or a gymnasium, or shops, or cooking room. Every city should have a certain number of these portables, since the population is always moving and it is undesirable to erect a new permanent building until it is certain that the growth of population in a certain section is more or less permanent. Therefore, the portables recommended can always be used in different sections of the city as the school population moves.

[13] A full description of the building will be found in Appendix III.

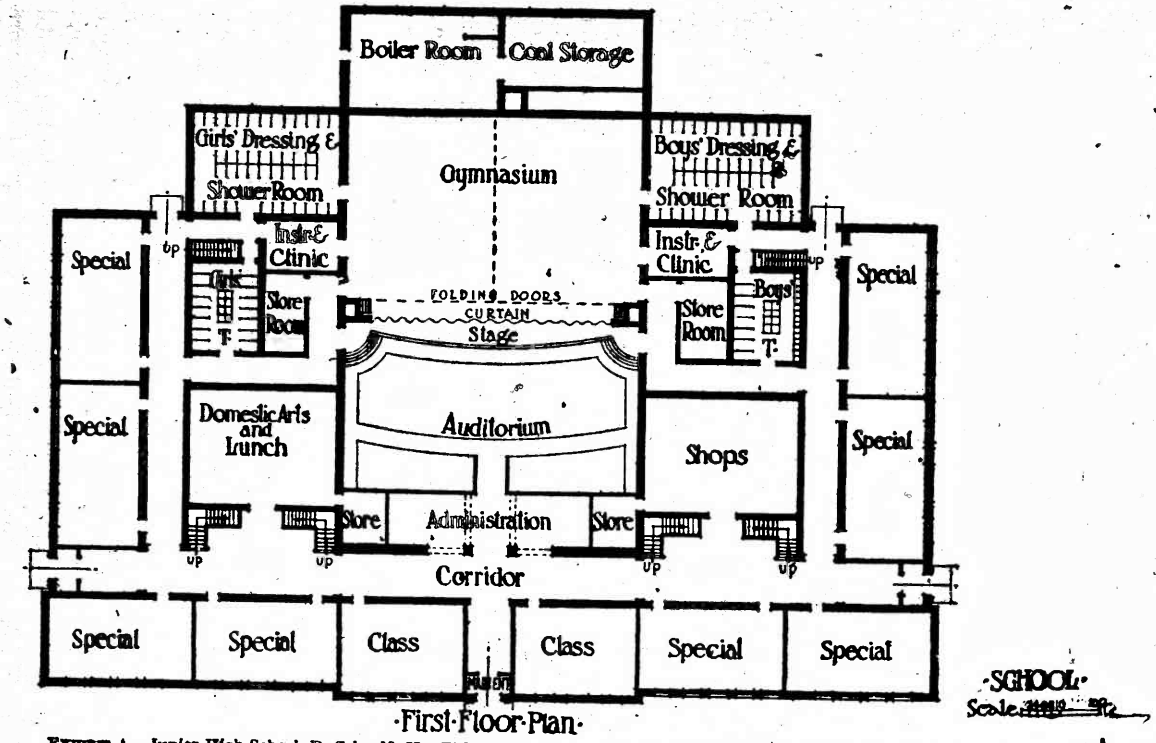
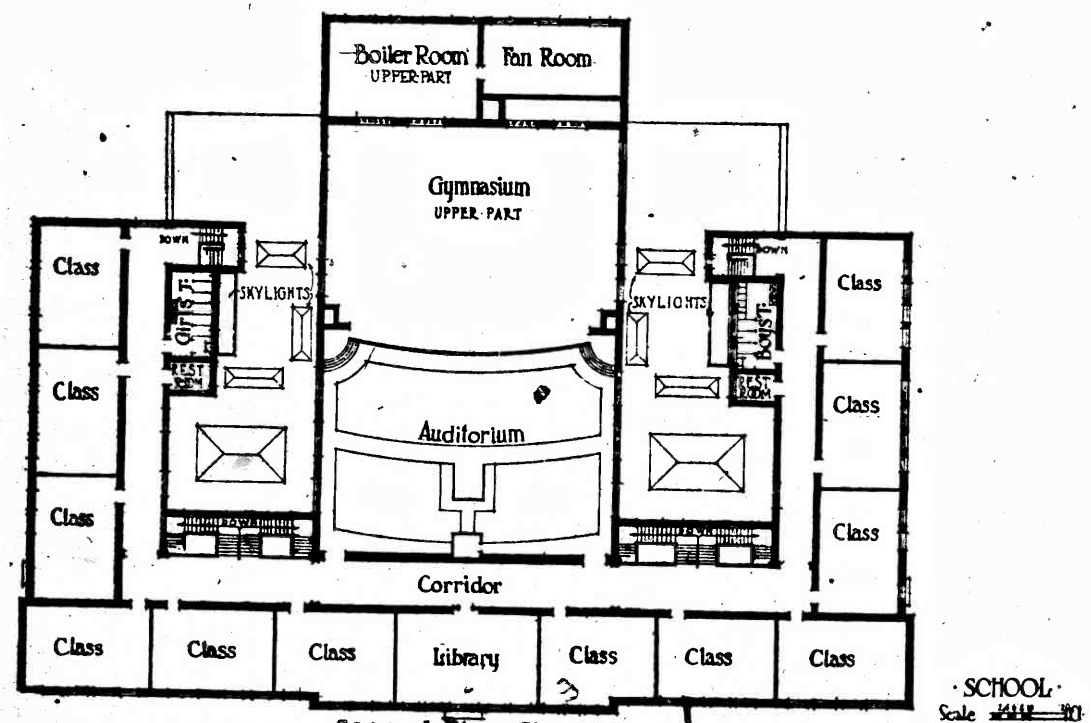


EXHIBIT A.—Junior High School, Buffalo, N. Y. This plan can be used for elementary schools, combination elementary and junior high school, junior high school or high school, and for any number of classes.



Second Floor Plan

EXHIBIT B.—Junior High School, Buffalo, N. Y.

RECOMMENDATIONS FOR A PERMANENT BUILDING PROGRAM FOR WHITE SCHOOLS.

Two alternate plans are suggested for the permanant building program for white schools. One provides for two white elementary schools and one high school; the other provides for three elementary schools and one high school.

PLAN 1.

This plan provides for housing all the children east of the Oconee River in the Oconee School, to which an addition should be built; for housing all the children west of the Oconee River in a new building to be erected on the Chase Street site; and for a new high-school building to be erected on the present high-school site.

1. *A new building for Childs, College Avenue, Baxter, and Nantahala.*—This building should include all the children at present in the above four schools and also the eighth grade from the high school. Such a school could not strictly be said to include junior high school organization, as there are not more than 8 grades, but as there are only 11 grades in the high school the ninth grade could not well be taken out without adding a twelfth to the high school. The buildings will be so constructed, however, that they can be added to in order to provide for these extra grades if desired.

The number to be provided for in this building would be as follows:

Childs	410
College Avenue	429
Baxter Street	305
Nantahala	220
Total	1,364
Eighth grade	132
Total	1,496
20 per cent increase in 10 years[1]	299
Total (for a 45-class school)	1,795

This should be made into a 46-class school. It is understood throughout this report that a class is reckoned on the basis of an enrollment of 40 pupils per class.

Under the work-study-play plan, there would be needed 23 classrooms. There should also be 1 auditorium, 2 gymnasiums, and 13

[1] In estimating the percentage of increase of growth to be allowed for the next 10 years the following factors are considered: The per cent of increase in the last 10 years checked by the percentage of increase in the last 6 years—which covers the war period—and the location of the school. For example, the enrollment in Childs, College Avenue, Baxter, and Nantahala increased 24.5 per cent in the past 10 years, but in the last 6 years it increased by only 10 per cent, therefore it seems fair to allow for an increase of not more than 20 per cent for the next 10 years. In the case of the Negro schools the enrollment in the Newtown, West Athens, and Reese Street Schools has increased 64 per cent in the last 10 years but has fallen off in the last 6. But, because of the annexation of the new territory which has so greatly increased the enrollment in the West Athens School during the last year (50 per cent), it seems fair to allow for an increase of approximately 40 per cent in these three schools in the next 10 years.

special rooms. It is possible to have any kind of special rooms that the school authorities and parents desire. For example, they could be arranged as follows: Four shops for boys (manual training, print shop, forge, and metal shop), 1 cooking room and 1 sewing room, 1 mechanical drawing room and 1 freehand drawing room, 1 music room, 1 nature-study room for the younger children, 1 chemistry laboratory and 1 physics laboratory for the older children, and 1 library. This would make a school building of 36 units, without counting the auditorium and 2 gymnasiums.[13]

The cost of a 36-unit building at $12,000 per unit would be $432,000. The equipment would come to $78,000, on the basis of $2,000 for equipment per unit, counting 1 auditorium and 2 gymnasiums as an additional 3 units. The total cost then for the building and equipment would be $510,000.

Under the traditional plan 23 additional classrooms would be needed. This would require another floor. The classroom cost in this case would be at the rate of $10,000 each, or a total of $230,000. The additional equipment would come to $46,000. This makes the total cost for the building under the traditional plan $786,000, as compared with $510,000 on the work-study-play plan.

The objection might be made that consolidating all these schools into one makes the distance too great for the children to travel. As a matter of fact, no child would have to go more than a mile, and some children are already walking that distance to attend these schools, but even when they have to go as far as a mile, it is better to transport children to a modern up-to-date school than to try to accommodate them in small, inadequate buildings near home. The city has much to learn from the country in respect to the value of consolidating schools.

2. *An addition for Oconee School.*—The Oconee School should house all the children from the first grade through the eighth on the east side of the Oconee River. The enrollment to be provided for would be as follows:

Present enrollment, grades 1-6	250
Estimated number in seventh and eighth grades [14]	80
Total	330
44 per cent increase in 10 years	145
Total (12 classes)	475

This makes a school of 12 classes. Under the work-study-play plan 6 classrooms would be needed. The school should also have 1

[13] See Exhibit A for type of building recommended. In order to adapt it to a 46-class school, 11 classrooms would have to be added either in a third story or to the wings.

[14] The principal has a list of 75 children, 6-15 years of age, in the district, who at present are not attending public school.

auditorium, 1 gymnasium, and 4 special rooms, for example, 1 nature-study room, 1 manual-training room, 1 cooking room, and 1 drawing room. This makes 10 units.

There are at present available in the existing building 6 classrooms. An addition is therefore needed for this building. It is recommended

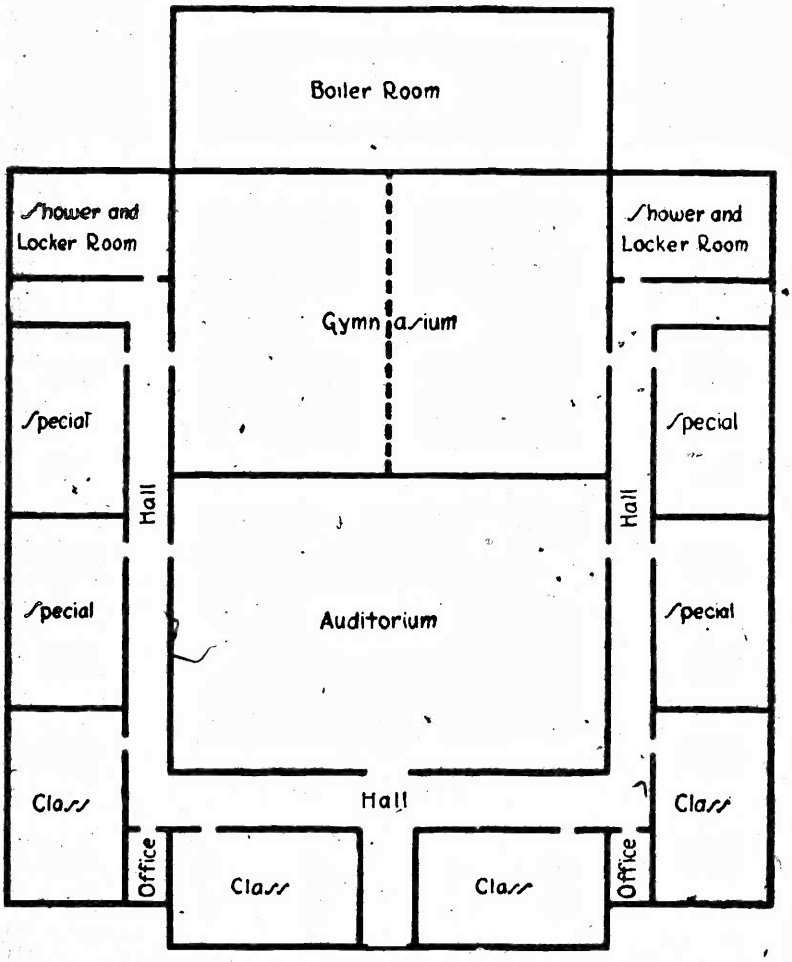


EXHIBIT C.—Suggested addition for Oconee School This plan, with the addition of two rooms, is also applicable for Baxter School.

that the 2 classrooms at the rear of the building be torn down, and an addition of 6 units, an auditorium and a gymnasium, be attached to the present building. The building thus reconstructed would have the auditorium and gymnasium on the ground floor directly facing the front door, and 2 wings on either side of that portion of the

building which now contains the 4 classrooms. A rough drawing of such an addition is given in Exhibit C.

The cost of such an addition would be $112,120, and the equipment would be $16,000, making a total of $128,120. This cost is based upon the actual building plans for this school, herewith submitted.

Under the traditional plan six additional classrooms would be needed, at a cost of about $60,000 plus equipment $12,000, making a total of $72,000, or a grand total under the traditional plan of $200,120, as over against $128,120 under the work-study-play plan.

3. *New building for the high school.*—The high school now has four grades—the eighth, ninth, tenth, and eleventh. It is proposed under this plan to make it a three-year school by sending the eighth grade to the new building, on Chase Street. The enrollment in the three grades is 213 pupils. Allowing for an increase of 56 per cent in the next 10 years, or 119 pupils, the number to be provided for is 332. Fortunately, the high school has ample grounds, but the present building, which is nothing but an old courthouse, should be torn down. A new building should be erected to contain 6 rooms for academic work in English, history, Latin, Spanish, mathematics, and French, and 14 special rooms arranged as follows: Science—1 chemistry room, 1 physics, 1 biology; shops—1 woodworking, 1 foundry, 1 forge, 1 machine shop, 1 pattern shop, 1 cooking, 1 sewing, 1 mechanical drawing, 1 freehand drawing, 1 library, and 1 music room.

This makes 20 units plus an auditorium and 2 gymnasiums. The cost of 20 units at $12,000 would be $240,000. The equipment of 23 rooms at $2,000 would be $46,000, making a total of $286,000. When a building, however, is as small as this, the cost increases. Therefore, it is impossible to include the cost of the auditorium and gymnasium in the $12,000 unit cost. It is necessary to provide an additional $100,000 for the auditorium and gymnasium, making a total for the whole building of $386,000. The equipment would be $46,000. Under the traditional plan the cost will be practically the same, since the high school is departmentalized throughout.

SUMMARY OF COST OF DESIRABLE PERMANENT BUILDING PROGRAM FOR WHITE SCHOOLS.

PLAN 1.—*On the basis of two elementary schools and one high school.*

(a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
One new building for Childs, College Avenue, Baxter, and Nantahala..... 1,840 pupils. 46 classes. 23 classrooms. 13 special rooms. 1 auditorium. 2 gymnasiums.	1,840	$78,000	$432,000	$510,000
An addition for Oconee School..... 1 auditorium. 1 gymnasium. 2 classrooms. 4 special rooms.	480	10,000	112,120	128,120
A new building for the high school..... 332 pupils. 6 classrooms. 14 special rooms. 1 auditorium. 2 gymnasiums.	332	46,000	386,000	432,000
Total.....	2,652	140,000	930,120	1,070,120

(b) TRADITIONAL PLAN—CAPACITY AND COSTS

One new building for Childs, College Avenue, Baxter, and Nantahala..... 1,840 pupils. 46 classes. 46 classrooms. 13 special rooms. 1 auditorium. 2 gymnasiums.	1,840	$124,000	$662,000	$786,000
An addition for Oconee School..... 1 auditorium. 1 gymnasium. 4 classrooms. 4 special rooms.	480	28,000	172,120	200,120
A new building for the high school..... 332 pupils. 6 classrooms. 14 special rooms. 1 auditorium. 2 gymnasiums.	332	46,000	386,000	432,000
Total.....	2,652	198,000	1,220,120	1,418,120

PLAN 2.

Plan 2 is worked out on the basis of three elementary schools and a high school. The difference between plans 1 and 2 is that plan 2 provides for a new 6-grade building for Baxter School in addition to the new building for the Chase Street site. Although under ordinary circumstances it would be undesirable to put up such a small building as would be necessary for the Baxter School, yet on account of the distance from Chase Street and the development of the city in that direction, the erection of a permanent building for the younger children in the sixth grade of the Baxter School might be justified. It depends entirely on whether the board of educa-

tion wishes to adopt the policy of having some small 6-grade schools. Under such a plan the following buildings would have to be provided for:

1. *A new building for Childs, College Avenue, Nantahala, seventh grade of Baxter, and the eighth grade from the high school.*—The number to be provided for would be as follows:

Childs	410
College Avenue	429
Nantahala	220
Seventh grade of Baxter	40
Eighth grade from the high school	132
Total (in a 30-class school)	1,231
20 per cent increase in 10 years	246
Total (37 classes)	1,477

This should be made into a 38-class school. The number of classrooms needed would be 19, the number of special rooms 11, total units to be provided for 30, in addition to 1 auditorium and 2 gymnasiums.

The cost of 30 units, at $12,000, would be $360,000. The equipment would be $66,000, or a total of $426,000.

Under the traditional plan 19 more rooms would be needed, at a cost of $10,000, or $190,000. Additional equipment would be $38,000, making an additional cost of $228,000, or a grand total under the traditional plan of $654,000, as over against $426,000 under the work-study-play plan.

2. *A new building for 6 grades at Baxter School.*—The enrollment to be provided for would be as follows:

Enrollment minus seventh grade	265
11 per cent increase in 10 years	29
Total (8 classes)	294

Under the work-study-play plan, it would be necessary to provide 4 classrooms and 4 special rooms—1 shop for boys, 1 cooking room, 1 nature-study and drawing room, 1 music room—making 8 units, together with an auditorium and gymnasium. The same plan for a building that is proposed for the Oconee School could be used for the Baxter School, with an addition of 2 classrooms. These two extra rooms would cost $12,960, the equipment $1,000, making a total of $13,960. The cost of the Oconee School was $128,120, which, in addition to the $13,960, would make the total cost for Baxter $142,080.[15]

Under the traditional plan, 4 additional classrooms would be needed at a cost of $40,000, plus equipment $4,000, making a total of $44,000, or a grand total under the traditional plan of $186,080.

[15] See Exhibit C. The classrooms can be added at the front of the building or at the rear.

3. *An addition for the Oconee School.*—The plan and cost of this building would remain the same as under Plan I, that is, $128,120 under the work-study-play plan; or $200,120 under the traditional plan.

PLAN 2.—*On the basis of three elementary schools and one high school.*

(*a*) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
One new building for Childs, College Avenue, seventh grade Baxter, Nantahala, and eighth grade 38 classes. 19 classrooms. 11 special rooms. 1 auditorium. 2 gymnasiums.	1,520	$66,000	$360,000	$426,000
One new building for 6 grades of Baxter 8 classes. 4 classrooms. 4 special rooms. 1 auditorium. 1 gymnasium.	320	17,000	125,080	142,080
An addition for Oconee 1 auditorium. 1 gymnasium. 2 classrooms. 4 special rooms.	480	16,000	112,120	128,120
A new building for the high school 332 pupils. 6 classrooms. 10 special rooms. 1 auditorium. 2 gymnasiums.	332	40,000	386,000	432,000
Total	2,652	145,000	983,200	1,128,200
Land				5,000
Grand total				1,133,200

(*b*) TRADITIONAL PLAN—CAPACITY AND COSTS.

One new building for Childs, College Avenue, seventh grade Baxter, Nantahala, and eighth grade 38 classes. 38 classrooms. 11 special rooms. 1 auditorium. 2 gymnasiums.	1,520	$104,000	$550,000	$654,000
One new building for 6 grades of Baxter 8 classes. 8 classrooms. 4 special rooms. 1 auditorium. 1 gymnasium.	320	32,000	212,120	244,120
An addition for Oconee 1 auditorium. 1 gymnasium. 4 classrooms. 4 special rooms.	480	28,000	172,120	200,120
A new building for the high school 332 pupils. 6 classrooms. 10 special rooms. 1 auditorium. 2 gymnasiums.	332	46,000	386,000	432,000
Total	2,652	210,000	1,320,240	1,530,240
Land				5,000
Grand total				1,535,240

RECOMMENDATIONS FOR A PERMANENT BUILDING PROGRAM FOR NEGRO SCHOOLS.

In 1910–11 there were 806 children in the Negro schools. In 1919–20 there were 1,065, an increase of 32.1 per cent in 10 years. There are at present four school buildings for Negro children, the High and Industrial School, West Athens School, and Newtown School, which take care of all the children to the west of the Oconee River; and the East Athens School, which takes care of all the children east of the Oconee River.

As is the case with the white schools, there are hardly enough children in the Negro schools to make one fair-sized school; but, because of the geographical location of the population, it is not possible to house all the children in one school. The East Athens School is in a district by itself and should be treated as a separate unit, taking care of all the children to the east of the Oconee River. All the children on the west side of the Oconee River should be housed in a new building to be erected for the High and Industrial School.

The detailed recommendations follow:

1. *A new building for the High and Industrial, West Athens, and Newtown Schools.*—Athens is justly proud of the fact that it has the first and only Negro high school in Georgia. Among the many educational achievements of Athens few are more significant than the development of this school. The fine spirit of the school and the progressive and thorough work being done there are things of which the city may well be proud. But even a slight study of the situation is sufficient to indicate that the needs of the school have far outgrown the building and equipment, and that it is now laboring under very serious handicaps in the matter of tools with which to carry on its work.

One of the most serious handicaps is the fact that the size of the school has been decreased by taking the lower grades out and sending them to the Newtown School, a building which should never have been used for school purposes. A glance at the enrollment figures shows that ever since the lower grades were taken out of the High and Industrial School, the net enrollment in the Newtown and High and Industrial districts has fallen off.[16] For example, in 1916–17, when the High and Industrial School included grades 1–11, the enrollment for the two schools was 546, whereas in 1919–20 when the High and Industrial School had only grades 4–11 the enrollment for the two districts dropped to 325. This falling off is not due to fewer children in that part of the city, for in 1910–11 there were 456 west of the Oconee River and in 1919–20 there were 747, a gain of 291, or 64 per cent in 10 years. Moreover, there was no falling off in enrollment in the Newtown and Reese Street districts until the lower

[16] See enrollment in public schools, 1913-14 to 1919-20 inclusive, Appendix IV.

grades were taken out of the High and Industrial School, 1918–19, when the enrollment in the elementary grades for these two districts dropped suddenly. There was no decrease in the West Athens district and there was none to speak of in the East Athens district in that year. It does not seem reasonable to suppose that the influenza epidemic hit this district so much harder than any other. Rather, it is reasonable to suppose that when children are transferred to a building like the Newtown School, they simply do not go to school. Failure on the part of the city to provide modern school buildings ultimately always means that fewer and fewer children get an education. Customers will not come to a business firm which is housed in an old, tumble-down, insanitary building; hence modern office buildings are erected. The children are the customers of the schools. Why should they be expected to go to school in an old insanitary building? What has it to offer them? There are no laws which can compel attendance in such a building as the Newtown School.

The West Athens School is a somewhat better building than the Newtown School, but it is an old, wooden frame structure, badly constructed, and with no modern facilities. The cost of reconstructing it would be out of all proportion to the original value of the plant. Furthermore, the number of children in the school is too small to justify erecting a new building for it.

In other words, it is important both from an educational and financial standpoint to house all the children on the west side of the Oconee River in a new building to be erected on the present High and Industrial School site. This would make a combination elementary and high school, the total enrollment of which would be about 1,200 children, or the minimum necessary for a modern, economical plant. The original cost of such a plant may seem large, but it should be remembered that by erecting such a school building the cost of maintaining three separate buildings is eliminated. The cost of this one plant would not only cover the cost of three separate day schools but it would also provide for the evening High and Industrial School. Therefore, the plan recommended represents the cost for four schools, not one. Furthermore, such a building would provide a school plant for Negro children which would not only be a credit to the city but an example to be followed by all the other cities in the State.

The objection might be made that the consolidation of these three schools in one plant at the High and Industrial School would necessitate children having to walk too long a distance to school. As a matter of fact, however, no pupil under such a consolidation would have a farther distance to walk than many pupils have to walk now. The districts at present overlap; for example, 10 pupils from the High and Industrial district go to Newtown School, and 41 pupils

from the Newtown district go to the High and Industrial School; 103 pupils from the West Athens district go to the High and Industrial School, and 68 pupils from the High and Industrial district go to the West Athens School. The majority of pupils in the West Athens district would not be more than a mile and a quarter from the High and Industrial School. At the present time there are pupils attending the Newtown School and the West Athens School who live a mile and a half from each of those schools.

The enrollment to be provided in this combination elementary and high school would be as follows:

High and Industrial High School	111
Elementary	163
Newtown	182
West Athens, 1920	291
Total	747
Increase in 10 years (39 per cent)	290
Increase in enrollment in West Athens due to extension of territory	109
Total (in 29 classes)	1,146

Make this a school of 30 classes, that is, 6 high-school classes of 30 pupils each and 24 elementary classes of 40 pupils each. Providing merely for the activities at present carried on in the school, the number of classrooms and special rooms would be as follows: 4 classrooms for the high-school students for English, mathematics, Latin, and history; 12 elementary classrooms and 12 special rooms; for example, 1 chemistry laboratory, 1 physics laboratory, 5 shops (a foundry, forge, machine shop, woodworking, plastering), 1 cooking room, 1 sewing room, 1 mechanical drawing room, 1 music room, 1 library. The school now has all these subjects but no adequate rooms or equipment with which to teach them. There should also, of course, be an auditorium and 2 gymnasiums. This would make 28 units.

The cost of 28 units at $12,000 would be $336,000, and the cost of equipment would be $62,000, making a total of $398,000. This makes a per pupil cost of $331, as over against a per pupil cost in the white high school of $1,199.

Under the traditional plan 12 extra rooms would be needed at a cost of $120,000 and equipment $24,000, making a total of $144,000 additional, or a grand total of $542,000 under the traditional plan, as over against $398,000 under the work-study-play plan.

2. *A new building for East Athens School.*—The present building for this school is an old wooden frame structure. It was built for 240 children and it contains 429. There are only 6 classrooms in the building, and these are nothing but bare rooms with the blackboards so placed that it is almost impossible for any children except those in the front row to read what is written on them. There is

no principal's office or teachers' rest room, and although the school is really a social center as well as a school where children are taken care of when they are sick or poorly clad, yet there are no cloakrooms and no rest room or clinic. There is no shop or cooking room, or auditorium or play room.

A new building should be erected which would serve both as a schoolhouse and a social center for this part of the town.

The enrollment to be provided for in this school is as follows:

Present enrollment	429
Sixth and seventh grades	80
Total	509
Eighteen per cent increase in 10 years	90
Total (in 15 classes)	599

This should be a 16-class school (640 pupils). It will be necessary to have, in addition to an auditorium and a gymnasium, 8 classrooms and 6 special rooms, for example, 2 shops for boys, a cooking room, 1 sewing room, 1 drawing and nature study room, and 1 music room, making a total of 14 units. The total cost for this building would be $200,000. This represents more than the $12,000 unit cost, because a smaller building is always more expensive. The equipment for 16 units at $2,000 would be $32,000, making a total of $232,000. Under the traditional plan 8 additional classrooms would be needed at a cost of $80,000, which, with $16,000 for additional equipment, would come to $96,000, making a total cost under the traditional plan of $328,000, as compared with $232,000 under the work-study-play plan.

SUMMARY OF COST—PERMANENT BUILDING PROGRAM FOR NEGRO SCHOOLS.

On basis of one elementary school and one combination elementary and high school.

(a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
New building for High and Industrial School, West Athens and Newtown, 30 classes, 1,200 pupils. 16 classrooms. 12 special rooms. 1 auditorium. 2 gymnasiums.	1,200	$82,000	$336,000	$398,000
New building for East Athens, 640 pupils. 8 classes: 4 classrooms. 4 special rooms. 1 auditorium. 1 gymnasium.	640	32,000	200,000	232,000
Total	1,840	94,000	536,000	630,000
Land				10,000
Grand total				640,000

On basis of one elementary school and one combination elementary and high school—Con.

(b) TRADITIONAL PLAN—CAPACITY AND COSTS.

Building.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
New building for High and Industrial School, West Athens and Newtown 1,200 pupils. 30 classes. 28 classrooms. 12 special rooms. 1 auditorium. 2 gymnasiums.	1,200	$96,000	$446,000	$542,000
New building for East Athens 640 pupils. 8 classes. 8 classrooms. 4 special rooms. 1 auditorium. 1 gymnasium.	640	48,000	290,000	338,000
Total	1,840	144,000	736,000	880,000
Land				10,000
Grand total				890,000

SUMMARY OF COST—PERMANENT BUILDING PROGRAM FOR WHITE AND NEGRO SCHOOLS.

PLAN 1.—(a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
White schools	2,662	$140,000	$930,120	$1,070,120
Land				10,000
Negro schools	1,840	94,000	536,000	630,000
Land				10,000
Total	4,492	234,000	1,466,120	1,710,120

PLAN 1.—(b) TRADITIONAL PLAN—CAPACITY AND COSTS.

White schools	2,662	198,000	1,220,120	1,418,120
Negro schools	1,840	134,000	736,000	870,000
Land				10,000
Total	4,492	332,000	1,956,120	2,298,120

PLAN 2.—(a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

White schools	2,652	143,000	983,200	1,126,200
Land				5,000
Negro schools	1,840	94,000	536,000	630,000
Land				10,000
Total	4,492	239,000	1,519,200	1,773,200

PLAN 2.—(b) TRADITIONAL PLAN—CAPACITY AND COSTS.

White schools	2,652	210,000	1,230,240	1,440,240
Land				5,000
Negro schools	1,840	134,000	736,000	870,000
Land				10,000
Total	4,492	344,000	2,026,240	2,325,240

ATHENS HAS THE WEALTH TO CARRY OUT THE PERMANENT BUILDING PROGRAM PROPOSED.

The taxable wealth of Athens at present is given at $14,900,000, including the recently annexed territory. It is possible to bond the city up to 7 per cent of the taxable wealth, $1,043,000, but there are outstanding bonds at present for $720,000, which leaves available at present for a bond issue $323,000.

Taxable wealth of Athens, Ga.

Real property	$8,536,125
Annexed territory	1,400,000
Personal property	4,963,875
Total taxable wealth at 60 per cent property valuation	14,900,000

Considering the fact that such a small amount as $323,000 is available for a school building program, it would seem that the preceding permanent building program, which calls for a minimum of $1,710,120, is far beyond the financial capacity of the city to carry out. As a matter of fact, however, if the true wealth of the city is considered, it is not beyond the financial capacity of Athens to carry out the permanent program.

At the present time property in Athens is assessed at 60 per cent valuation. If it were assessed at a 100 per cent valuation, the true taxable wealth would be $24,833,333. Therefore, the amount of money available for bonds, at 7 per cent of the taxable wealth, would be $1,738,333. Deducting the $720,000 for outstanding bonds, there would be left $1,018,333 available for a bond issue, if property were assessed at a 100 per cent valuation.

The fact remains, however, that property at present is not assessed at 100 per cent valuation, and therefore only $323,000 is available for school building purposes this year. Consequently, a school building program has been worked out on the basis of the expenditure of the $323,000 now available. In planning such a program two things have been borne in mind—to give relief to the schools where the need is most pressing and to work out the program so that it will fit into the permanent building program, thus avoiding waste in future building plans. Recommendations for a building program on the basis of the proposed bond issue will now be given.

RECOMMENDATIONS FOR A BUILDING PROGRAM PLANNED ON THE BASIS OF A BOND ISSUE OF $323,000.

It is obvious that almost any one of the new buildings planned would take most of the money now available to meet the needs of all the schools. Therefore it is undesirable to erect any one of the buildings in toto with the funds available in this bond issue, since that would make it impossible to give all the children increased

educational advantages. The funds have been so distributed in the following building program that *all* children will get the opportunity for healthy work and play as well as study in good classrooms. It is possible to accomplish this (1) by erecting parts of each of the buildings proposed and erecting them in such a way that they can be added to later on when additional funds are available; (2) by erecting modern portable units not only in the form of classrooms but of auditoriums, gymnasiums, shops, cooking rooms, and science rooms, so that all children may have the opportunity for these activities whether they are in temporary or permanent structures.

THE SCHOOLS MOST IN NEED OF RELIEF.

Baxter School, Oconee School, and the combination elementary and high school for Negro children are the schools which need relief immediately; the Baxter School because the building is utterly unfit for school purposes, and is in far worse condition than any other white school; the Oconee School because the congestion there is greater than in any other white school; and the combination elementary and high school for Negro children, because by starting this building the needs of three schools can be taken care of at once, whereas, if this were not done, it would be necessary to go to the expense of three sets of portable buildings, which would be an economic waste.

Both Childs and College Avenue Schools are fairly modern buildings, and if organized on the work-study-play plan there is plenty of room in these buildings not only for present enrollment but for growth for five years. The only additions needed would be a portable auditorium and gymnasium. No permanent building should be provided for Nantahala pending its inclusion in the new school building which should be erected for Childs, College Avenue, and Nantahala, but special facilities can be given to these children by means of modern portable auditorium, gymnasium, and shops. The needs of East Athens can also be taken care of by the addition of special facilities until a new building can be put up under the permanent building program.

RECOMMENDATIONS FOR THE WHITE SCHOOLS.

1. *A new building for Baxter School.*—The enrollment to be provided for in this school, allowing for 11 per cent increase in 10 years, is 338 children, or 8 classes. The whole of the building recommended in the permanent building program—4 classrooms, 1 shop for boys, 1 cooking room, 1 nature-study and drawing room, 1 music room, auditorium, and gymnasium—can be erected with the exception of the auditorium and gymnasium. The cost would be $57,960. (See

Exhibit C for plan of building.) The equipment would be $8,500, making the total cost of the building $66,460. It is possible to secure a portable auditorium 30 by 60 feet, fully equipped with opera chairs and stage, for $3,500,[17] and a portable gymnasium for the same amount. These units are eminently satisfactory, well lighted, well heated, and well adapted to the purposes for which they are built. The total cost, then, for Baxter School would be $73,460.

Under the traditional plan, four additional rooms would be needed at a cost of $40,000, which, with $2,000 for additional equipment, makes a total of $42,000, or a grand total, under the traditional plan, of $115,460, which would be prohibitive with the funds available in the present bond issue.

2. *A new building for Oconee School.*—The enrollment to be provided for in this school is as follows:

Present enrollment, grades 1–6	250
Estimated number in seventh and eighth grades	80
Total	330
44 per cent increase in 10 years	145
Total in 12 classes	475

As was pointed out in the permanent building program, six classrooms would be needed under the work-study-play plan. The school should also have one auditorium, one gymnasium, a nature study room, manual-training room, and drawing room. This makes 10 units.

There are available in the existing building 6 classrooms. The addition proposed would be added at the rear of the building, after the two rear classrooms had been torn down. This building would contain six units, an auditorium, and gymnasium.

The whole of this addition with the exception of the auditorium and gymnasium could be erected with the funds available in the present bond issue. The cost of the building minus the gymnasium and auditorium would be $45,000 and the equipment $7,500, making a total cost of $52,500. It would be necessary to erect a portable auditorium for $3,500 and a portable gymnasium for the same amount, making a total cost for this school of $59,500. The only difference from the plan proposed in the permanent building program would be that the auditorium and gymnasium would be in portable buildings for the present.

Under the traditional plan six more classrooms would be needed, $60,000, with $3,000 for equipment, making $63,000, or a total of $122,500.

3. *Childs Street School.*—This school is now housed in a comparatively new school building, fairly modern. It has eight classrooms

[17] Cost of portable auditorium $1,800, foundation and cost of erection $700, installation of electric lights, plumbing, and heating, approximately $1,000.

and three rooms in the basement, one now used as a classroom and another as a cooking room, with a small room for sewing. There is also a vacant room in the basement, which could be used as a shop. The enrollment is now 410 pupils, and a 20 per cent increase in five years would make 492 pupils, or 12 classes to provide for.

Under the work-study-play plan six classrooms would be needed, and there should be four special rooms—for example, one manual-training shop, one nature-study room, one cooking room, and one drawing room. This makes a total of 10 units, but there are already 11 rooms in the building. The eleventh room could be used for a library if so desired, or a music room, or a teachers' rest room. Therefore, the only thing to provide for in this school is a portable auditorium and gymnasium, $7,000. There is plenty of space on the grounds for the erection of these two units.

It will be necessary, however, to have equipment for the boys' shop, $2,000, and for the cooking room, $3,000. Furthermore, an additional item of $5,000 should be provided for repairs around the building, for the toilets, etc., and for equipment for the playground. The total cost for this school under the work-study-play plan would be as follows:

Movable auditorium	$3,500
Movable gymnasium	3,500
Equipment for boys' shop	2,000
Equipment for cooking so it can be used as a cafeteria	3,000
For repairs, plumbing, playground equipment, etc	5,000
	17,000

Under the traditional plan it would be necessary to have 6 additional portable classrooms at a cost of $1,000 each, which would make the total cost under the traditional plan $23,000.

4. *College Avenue School.*—This school is also housed in a comparatively new building of 13 rooms. As a permanent proposition it would be most undesirable to keep two small buildings like the College Avenue and Childs Street Schools, but inasmuch as the amount available in the bond issue is so limited, it will be necessary to use this building for the time being, and there is ample room in it if the school is organized on the work-study-play plan.

The present enrollment is 429 pupils. Make it into a 12-class school. There has been practically no increase in the past 10 years, due to the fact that the children have been transferred to the Childs Street School; under the work-study-play plan it would be necessary to have 6 rooms and 4 special rooms, 1 manual training shop, 1 nature study room, 1 cooking room, and 1 drawing room, or a total of 10 units.

But this building has 13 rooms. Therefore, 10 of them can be used for the classrooms and special rooms and the partitions between the cooking room and the 2 rooms on either side of it on the

second floor can be torn out and these 3 rooms made into an auditorium. A portable gymnasium should be put up on the grounds to the north of the building. Additional equipment will be needed and the additional cost will be as follows:

Gymnasium	$3,500
Equipment for shop	2,000
Equipment for cooking room	2,000
Playground equipment, etc	2,000
Repairs	2,000
Total	11,500

Under the traditional plan 6 more classrooms would be needed, $6,000, and there is no space on the school grounds on which to erect them. The total cost would be $17,500.

5. *Nantahala School.*—This district needs not only adequate classroom facilities but a school plant which will be a social center for the neighborhood. It needs particularly an auditorium for meetings, plays, etc., and a gymnasium for recreation in the evening as well as in the day. But the school is too small to justify the erection of a permanent building now, in view of the fact that in a permanent building program Nantahala should be combined with Childs and College Avenue and the seventh and eighth grades of Baxter in a new building on Chase Street.

It is important, however, that the children in these schools, pending the erection of such a building, should have facilities for shops, nature study rooms, auditoriums, and gymnasiums, and it is possible to provide such facilities by the addition of portable units equipped for these activities.

The net enrollment at present is 220. Allowing for 14 per cent increase in five years, at which time a permanent building program should be carried out, there are 250 children, or eight classes, to provide for. Four classrooms and four special rooms would be sufficient. At present there are available six rooms, i. e., counting as one the two rooms that were originally made out of one. Four of these rooms could be used as classrooms, one could be used as a nature study room, and one as a drawing room. It would then be necessary to provide portable buildings for the following units:

Auditorium	$3,500
Gymnasium	3,500
Shop	2,000
Cooking room	3,000
Repairs and play equipment	2,000
Total	14,000

Under the traditional plan four more classrooms would be needed, $4,000, making a total cost of $18,000. About $5,000 would be needed for additional land under the work-study-play plan and $20,000 under the traditional plan.

NEGRO SCHOOLS.

Two alternate plans are submitted for the Negro schools. The first, which would be by far the most economical in the long run, has been worked out on the basis of providing for two Negro schools, one at East Athens and one on the present High and Industrial School site. This latter school would be a consolidation of the High and Industrial, West Athens, and Newtown Schools, and it is proposed that the first floor of the new building recommended in the permanent building program be erected now to accommodate these pupils. The second plan is worked out on the basis of providing for three Negro schools—one at East Athens, one at West Athens, and one at the High and Industrial, which would combine the High and Industrial and Newtown Schools.

PLAN 1.

1. *A new building for the High and Industrial School and West Athens and Newtown Schools.*—The enrollment to be provided for in these three schools is as follows:

High and Industrial:	
High school	111
Elementary	163
Newtown	182
West Athens, 1920	291
Total	747
Increase in 10 years (39 per cent)	290
Increase in enrollment in West Athens, due to extension of territory	109
Total (in 29 classes)	1,146

Over a 10-year period this should be counted as a 1,200 pupil, or a 30 class school, but the actual number to be provided for at present would be 856 pupils, of whom 745, or 20 classes, are elementary school pupils. It will be necessary, then, to provide 4 rooms for high-school pupils—for English, mathematics, Latin, and history—and 10 classrooms under the work-study-play plan for the 20 elementary classes.

The present building has 8 classrooms and 1 small room in the basement used as a shop. There is also an additional building with a cooking room and sewing room. By erecting the outer perimeter of the first floor of the proposed new building for this school (see diagram of building in Exhibit A), 12 permanent rooms would be provided, which could be used either as classrooms or as shops. These 12 rooms, with the 11 already available, would make 23 units. Fourteen of these would have to be used as classrooms, as indicated above. This would leave the shop in the basement of the present building, the present cooking and sewing room, and six units in the new building which would be used for special activities—one for

science, one for drawing, and four for shops, making, with the existing facilities, nine special activity rooms for the whole school.

The cost of erecting this portion of the permanent building would be $78,631, the equipment would be $27,000, making a total cost of $105,631. It would be necessary to have a portable gymnasium and auditorium, $7,000, and it would also be necessary to set aside $5,000 to buy additional land for the building and playground. This makes a total cost of $112,631 for the building and equipment and $5,000 for the land.

It would appear from these figures as though more money were being spent on this one school than on any other item, but it should be remembered that this amount of money is being spent on three schools. As a matter of fact, the per capita building cost for this school is only $98, as over against $125 for the addition to Oconee School, and $250 for the Baxter School; and if the night school, with its enrollment of 200, is counted in, as it should be, the per capita cost would be even less. In other words, the most economical method of meeting the very great congestion in the Negro schools is by consolidating these three schools in a modern up-to-date plant, the first floor of which can be erected at this time. But such consolidation without adequate accommodations would be out of the question.

It would be desirable to erect this part of the permanent building for these three Negro schools at the earliest possible date, not only because it is the best solution of the housing problem, both from an educational and a financial standpoint, but also because such an addition, with adequate shop facilities, will greatly aid in carrying out the rest of the building program. The shop work done in this school is exceptionally good, and there is no reason why the erection of the portable buildings, both for this school and the other schools, should not be carried on as part of the practical shop work of the High and Industrial School. This would be desirable from an educational standpoint for the student in the High and Industrial School, and would make the erection of the portable buildings more economical than would otherwise be the case.

Under the traditional plan it would be necessary to have 10 additional classrooms, at a cost of nearly $100,000, with $10,000 for equipment, making an additional $110,000, or a grand total under the traditional plan of $222,631, which would make the erection of this building impossible under the present bond issue.

NUMBER OF TEACHERS NEEDED IN THE CONSOLIDATION OF THE HIGH AND INDUSTRIAL SCHOOL, WEST ATHENS AND NEWTOWN.

The question might be raised as to whether there are sufficient teachers for this consolidation. At present in the three schools there are 15 regular teachers and 4 specials, or 19 in all, and 3 princi-

Under the consolidation under the work-study-play plan, there would be needed in addition to the principal of the whole school, 4 high-school teachers, 10 elementary teachers, and 5 special teachers—science, drawing, head of manual work, cooking, sewing—exclusive of the other 4 shop teachers; 1 auditorium teacher, and 2 gymnasium teachers. That makes a total of 22 teachers, exclusive of the 4 shop teachers. But there are available 22 teachers in addition to the principal, so that there are at present available sufficient teachers for the consolidated school with the exception of a supervisor for the primary grades and the 4 shop teachers.

With regard to the shop teachers, it is recommended that the plan carried out in some school systems of employing regular artisans for this work be adopted in this school. Under such a plan the men who teach shop work are artisans who are employed to work 8 hours a day to do the repairs and construction about the building, and the boys who elect to work with them on this practical work.[18] Under such a plan there is no danger of shop work degenerating into an academic subject, as too often happens. Furthermore, under such a plan the shop work can be made self-supporting, as is done in some school systems.

2. *East Athens School.*—The present enrollment in the East Athens School is 429 pupils. With a 10 per cent increase for 5 years it would be 471, or 12 classes. It is impossible to erect even a part of the permanent building for this school with the present bond issue, but it is possible to give modern school facilities to the children in portable shops, auditorium, and gymnasium.

Under the work-study-play plan it would be necessary to have six classrooms and four special rooms, together with an auditorium and gymnasium. There are at present available in the building six rooms. Two of the best of these rooms could be used as classrooms, the others could be used for shops. It would then be necessary to erect portable units as follows:

One auditorium	$3,500
One gymnasium	3,500
Four classrooms	4,000
Equipment for shop	1,000
Equipment for cooking	2,000
	14,000
General repair	2,000
To make it a unit	4,000
Total	20,000

The total cost of this building would be $20,000. Under the traditional plan six more classrooms would be needed, at a cost of $6,000; total, $26,000.

[18] The productive shop work in the public schools of Gary, Ind., is one example of how such work has been organized.

PLAN 2 FOR NEGRO SCHOOLS.

The program for the Negro schools above described is strongly recommended as the most economical and satisfactory building program for the funds available. Plan 2 providing for three Negro schools instead of two would necessitate temporary portable structures for the High and Industrial School and West Athens School, and would be expensive in the long run. The cost for the Negro schools under such a plan would be $101,000 instead of $132,631, but there would be the additional cost of maintaining three plants instead of two. Furthermore, when the schools are combined and a new building erected, the city would be left with $55,000 worth of portable buildings on its hands, which is more than the original difference in cost between the two plans.

SUMMARY OF COST OF BUILDING PROGRAM ON THE BASIS OF THE $323,000 BOND ISSUE.

Plan 1.

(a) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
WHITE SCHOOLS.				
New building for Baxter School	320	$8,500	$64,960	73,460
320 pupils.				
8 classes.				
4 classrooms.				
4 special rooms.				
1 portable auditorium $3,500				
1 portable gymnasium 3,500				
An addition for Oconee School	460	7,500	52,000	59,500
460 pupils.				
12 classes.				
6 classrooms.				
4 special rooms.				
1 portable auditorium $3,500				
1 portable gymnasium 3,500				
Two portables for Childs School	480	5,000	12,000	17,000
480 pupils.				
12 classes.				
1 auditorium $3,500				
1 gymnasium 3,500				
Equipment, shop 2,000				
Equipment, cooking 3,000				
Repairs 5,000				
One portable for College Avenue	480	6,000	5,500	11,500
480 pupils.				
12 classes.				
1 gymnasium $3,500				
Equipment, shop 2,000				
Equipment, cooking 2,000				
Equipment:				
Playground 2,000				
Repairs 2,000				
Four portables for Nantahala	320	.....	14,000	14,000
320 pupils.				
8 classes.				
1 auditorium $3,500				
1 gymnasium 3,500				
1 shop 2,000				
1 cooking room 3,000				
Repairs 2,000				
Total	2,080	27,000	148,460	175,460
Land	.....	.....	.....	5,000
Total for white schools	.....	.....	.....	180,460

Plan 1—Continued.

(c) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
NEGRO SCHOOLS.				
One floor of new building for High and Industrial School, West Athens and Newtown Schools	1,200	$27,000	$85,631	$112,631
1,200 pupils.				
30 classes.				
6 classrooms.				
6 special rooms.				
1 portable auditorium $3,500				
1 portable gymnasium 3,500				
Six portables for East Athens	480	3,000	17,000	20,000
480 pupils.				
12 classes.				
1 auditorium $3,500				
1 gymnasium 3,500				
4 classrooms 4,000				
Equipment, shop 1,000				
Equipment, cooking 2,000				
Repairs 2,000				
To make single unit of building 4,000				
Total	1,680	30,000	102,631	132,631
Land				5,000
Total for Negro schools	1,680	30,000	102,631	137,631
Grand total for white and Negro schools	3,760	38,000	251,091	318,091

(b) TRADITIONAL PLAN—CAPACITY AND COSTS.

WHITE SCHOOLS.				
New building for Baxter School	320	$10,500	$105,900	$116,400
320 pupils.				
8 classes.				
8 classrooms.				
4 special rooms.				
1 portable auditorium $3,500				
1 portable gymnasium 3,500				
An addition for Oconee School	480	10,500	112,000	122,500
480 pupils.				
12 classes.				
12 classrooms.				
4 special rooms.				
1 portable auditorium $3,500				
1 portable gymnasium 3,500				
Eight portables for Childs School	480	5,000	18,000	23,000
480 pupils.				
12 classes.				
1 portable auditorium $3,500				
1 portable gymnasium 3,500				
6 classrooms 6,000				
Equipment, shop 2,000				
Equipment, cooking 3,000				
Repairs 5,000				
Seven portables for College Avenue	480	6,000	11,500	17,500
480 pupils.				
12 classes.				
1 portable gymnasium $3,500				
6 portable classrooms 6,000				
Equipment, shop 2,000				
Equipment, cooking 2,000				
Equipment, play 2,000				
Repairs 2,000				
Eight portables for Nantahala	320		18,000	18,000
320 pupils.				
8 classes.				
1 portable auditorium $3,500				
1 portable gymnasium 3,500				
4 portable classrooms 4,000				
1 shop 2,000				
1 cooking room 3,000				
Repairs 2,000				
Total	2,080	32,000	265,400	297,400
Land				20,000
Total for white schools	2,080	32,000	265,400	317,400

Plan 1—Continued.

(b) TRADITIONAL PLAN—CAPACITY AND COSTS—Continued.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
NEGRO SCHOOLS.				
Two floors of new building for High and Industrial, West Athens and Newtown	1,200	$37,000	$185,631	$222,631
1,200 pupils.				
30 classes.				
16 classrooms.				
6 special rooms.				
1 portable auditorium $3,500				
1 portable gymnasium 3,500				
Twelve portables for East Athens	480	3,000	23,000	26,000
480 pupils.				
12 classes.				
1 auditorium $3,500				
1 gymnasium 3,500				
10 classrooms 10,000				
Equipment, shop 1,000				
Equipment, cooking 2,000				
Repairs 2,000				
To make single unit of building 4,000				
Total	1,680	40,000	208,631	248,631
Land				5,000
Total for Negro schools	1,680	40,000	208,631	253,631
Grand total for white and Negro schools	3,760	72,000	474,091	571,091

Plan 2 is given chiefly in order to illustrate the expense of patchwork methods and of maintaining a number of small plants. *It is strongly urged that it should not be adopted.*

NEGRO SCHOOLS—PLAN 2—NOT RECOMMENDED FOR ADOPTION.

1. *An addition of portable buildings to the High and Industrial School.*—The High and Industrial School and Newtown School should be consolidated and the children sent to the High and Industrial. A number of portable buildings could be erected and made into a single building and enough land bought to square the lot on which the High and Industrial School now stands. The number of classes to be provided for would be as follows:

Enrollment:
- High and industrial—
  - High school 111
  - Elementary 163
- Newtown 182

Total 456
Twenty per cent increase in 5 years 91

Total (in 14 classes) 547

This makes a school of 4 high-school classes and 11 elementary classes. Under the work-study-play plan it would be necessary to have the following accommodations: One auditorium, 1 gymnasium, 4 classrooms for the high school, and 6 for the elementary classes, or a total of 10; special rooms, 1 chemistry laboratory, 1 physics laboratory, 5 shops—woodworking, forge, painting and plastering, brick masonry (these already exist for evening school students, but

they are scattered over the city in private shops), 1 cooking room for girls, a dressmaking room, 1 nurse training room, 1 mechanical drawing, and 1 music room. This makes 12 units, or a total of 22 units needed. There are available 8 classrooms in the present building and 2 rooms for cooking and sewing in an annex. The room now used in the basement of the present building for a workshop could be used as a storeroom and stockroom.

The eight rooms in the present building can be used for classrooms, and for the present the cooking and sewing rooms can still be used for that purpose if additional equipment is provided. That leaves 12 rooms to be provided. This can be done by erecting modern portable buildings. These buildings can be secured in the form of an auditorium, gymnasium, classrooms, and special rooms, and all of them can be so set up as to form a single building with a corridor down the center, with a principal's office, store, heating plant, showers, and toilets. The cost would be as follows:

One auditorium	$3,500
One gymnasium	3,500
Two classrooms	2,000
Two science laboratories	4,000
Five shops:	
Woodworking	2,000
Forge	4,000
Machine shop	7,000
Painting and plastering	500
Brick masonry	500
Additional equipment for cooking and sewing	2,000
One mechanical drawing room	2,000
One music room	2,000
One nurse training room	2,000
	35,000
To make these units into a single building with heating plant	$10,000
	45,000
300 modern single seats and desks to replace the present double desks	3,000
	48,000
Repairs	3,000
	51,000
Additional land	5,000
Total	56,000

Under the traditional plan it would be necessary to have six additional classrooms at a cost of $6,000, or a total of $57,000.

2. *Portable buildings for the West Athens School.*—The enrollment in the West Athens School in 1921 was 400, or 10 classes. Allowing for growth of 2 classes, it would be necessary to provide for 480 pupils, or 12 classes. Under the work-study-play plan it would be necessary to have 6 classrooms, 4 special rooms, an auditorium, and a gymnasium. There are available in the present building 6 rooms. With this it will be necessary to erect 4 portable units, an auditorium, and gymnasium. The cost would be as follows:

One auditorium	$3,500
One gymnasium	3,500
One shop	2,000
One cooking room	3,000
One nature study room	1,000
One drawing room	1,000
	14,000
General repair	$2,000
To make a single building unit	4,000
Total	20,000
Land	5,000
Total	25,000

Under the traditional plan six additional classrooms would be needed at $6,000, making a total of $26,000.

3. *Portable buildings for East Athens School.*—The plans for this school and the cost would be the same as under Plan 1, $20,000.

The total cost of the building program for the Negro schools under plan 2 would be $101,000.

SUMMARY OF COST OF A BUILDING PROGRAM ON THE BASIS OF THE $323,000 BOND ISSUE.

Plan 2.

(c) WORK-STUDY-PLAY PLAN—CAPACITY AND COSTS.

Buildings.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
WHITE SCHOOLS.				
Same as under plan 1:				
Buildings	2,080	$27,000	$148,460	$175,460
Land				5,000
Total for white schools	2,080	27,000	148,460	[1] 180,460
NEGRO SCHOOLS.				
14 portables for the High and Industrial and Newtown Schools	560	[1] 5,000	[2] 46,000	51,000
560 pupils.				
14 classes.				
1 portable for auditorium $3,500				
1 portable for gymnasium 3,500				
2 portables for classrooms 2,000				
2 portables for science rooms 4,000				
5 portables for shops 14,000				
1 portable for mechanical drawing 2,000				
1 portable nurse-training room 2,000				
1 music room 2,000				
Additional equipment for cooking room 2,000				
Cost of making these units into a single plant with heating plant 10,000				
300 single seats and desks to replace double desks 3,000				
Repairs 3,000				
Portables for West Athens	480	[2] 20,000	.....	20,000
480 pupils.				
12 classes.				
1 portable auditorium 3,500				
1 portable gymnasium 3,500				
1 portable shop 2,000				
1 portable cooking room 3,000				
1 portable nature-study room 1,000				
1 portable drawing-room 1,000				
Cost of making these units into a single plant with heating plant 4,000				
Repairs 2,000				
6 portables for East Athens, same as under plan 1	480	20,000	.....	20,000
Total	1,520	91,000	.....	91,000
Land				10,000
Total for Negro schools	1,520	91,000	.....	101,000
Total for buildings for white and Negro schools	3,600	266,460	.....	266,460
Land				15,000
Grand total for white and Negro schools	3,600	266,460	.....	281,460

[1] This is in addition to the equipment included in the cost of the portable buildings.
[2] The cost of equipment for each room and activity is included in this building cost.

Plan 2—Continued.

(b) TRADITIONAL PLAN—CAPACITY AND COSTS.

Building.	Number of pupils accommodated.	Cost of equipment.	Cost of buildings.	Total cost.
WHITE SCHOOLS.				
Same as under plan 1:				
Buildings	2,080	$32,000	$285,400	$317,400
Land				20,000
Total for white schools	2,080	32,000	285,400	337,400
NEGRO SCHOOLS.				
20 portables for High and Industrial and Newtown Schools	800	5,000	52,000	57,000
(Same capacity as under work-study-play plan, but cost of 6 additional classrooms required under traditional plan.)				
12 portables for West Athens	480		36,000	36,000
(Same capacity as under work-study-play plan, but cost of 6 additional classrooms required under traditional plan.)				
12 portables for East Athens	480		36,000	36,000
(Same capacity and costs as under work-study-play plan, but cost of 6 additional classrooms required under traditional plan.)				
Total	1,520		109,000	109,000
Land				20,000
Total for Negro schools	1,520		109,000	129,000
Grand total for white and Negro schools	3,600		406,400	445,400

ATHENS BEHIND OTHER CITIES IN SCHOOL EXPENDITURES.

The preceding building program shows what can be accomplished with the $323,000 bond issue available. But Athens should not be satisfied with this amount of money for her schools. It represents only a beginning of what she should spend in order to bring her school plant up to date.

Athens probably does not realize that, as has already been pointed out, the city has the wealth to make her public school plant one of the most modern in the country. Furthermore, the average citizen probably does not know that up to the present time Athens has spent far less on her public schools than other cities of the same population group. And yet the following facts prove this to be the case:

Athens is fortieth from the bottom of a list of 327 cities in its tax rate for schools.—The tax rate for all school purposes for Athens for 1917–18 was 5 mills. But this was on the basis of a 67 per cent property assessment. On the basis of a 100 per cent valuation of property the tax rate for Athens for that year was 3.35 mills.[19] (See Chart IV.)

The following table and chart show that out of 327 cities with a population of 10,000 to 30,000, Athens stood fortieth from the bottom of the list in its tax rate for schools. Two hundred and eighty-

seven cities had a higher tax rate than Athens. Only 39 had a lower rate.[19]

Athens stands eleventh from the bottom of the list of 45 cities in its per capita expenditure for schools.—Furthermore, when Athens is compared with other cities of the same population group, with respect to its per capita expenditure for current school expenses, it is found that its per capita expenditure for public schools for 1917–18 was $32.46, whereas, the average for the 25 cities cited in the accom-

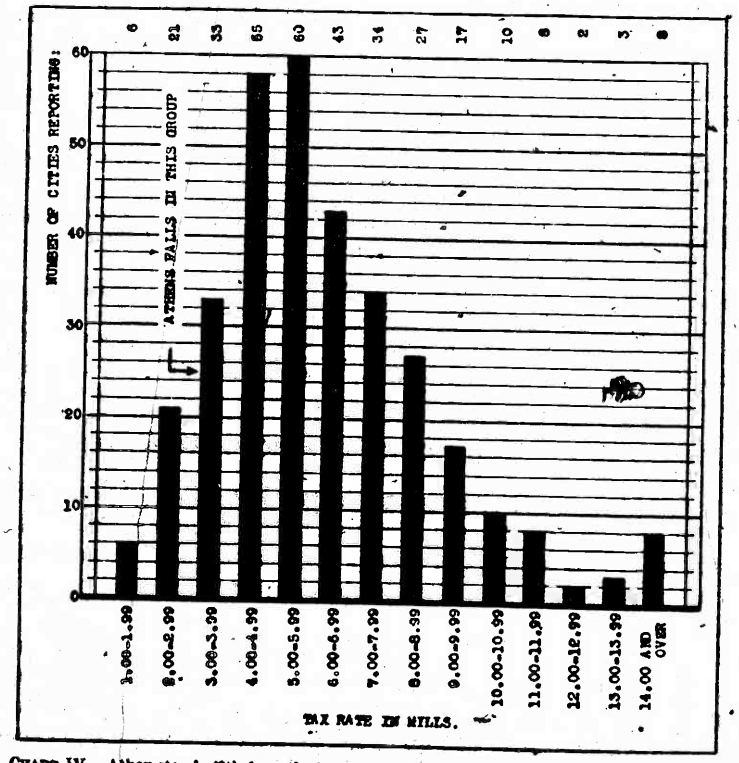


CHART IV.—Athens stands 40th from the bottom in a list of 327 cities in its tax rate for schools.

panying chart was $49.93. In other words, it stood eleventh from the bottom of the list of 45 cities.[20] (See Chart V.)

Athens stands twenty-first from the bottom of the list of 340 cities in the amount of its school property.—The value of the school property of the public schools of Athens tells the story of its poverty in school buildings and indicates with startling accuracy how far behind other cities Athens has fallen in its provisions for housing its children.

[19] See Statistics of Public School Systems, H. R. B[illegible] S. Bu. Educ. Bul. 1920, No. 24, p. 467.
[20] See Statistics of City School Systems, H. R. Bo[illegible] Bu. Educ. Bul. 1920, No. 24, pp. 140, 423, and 524.

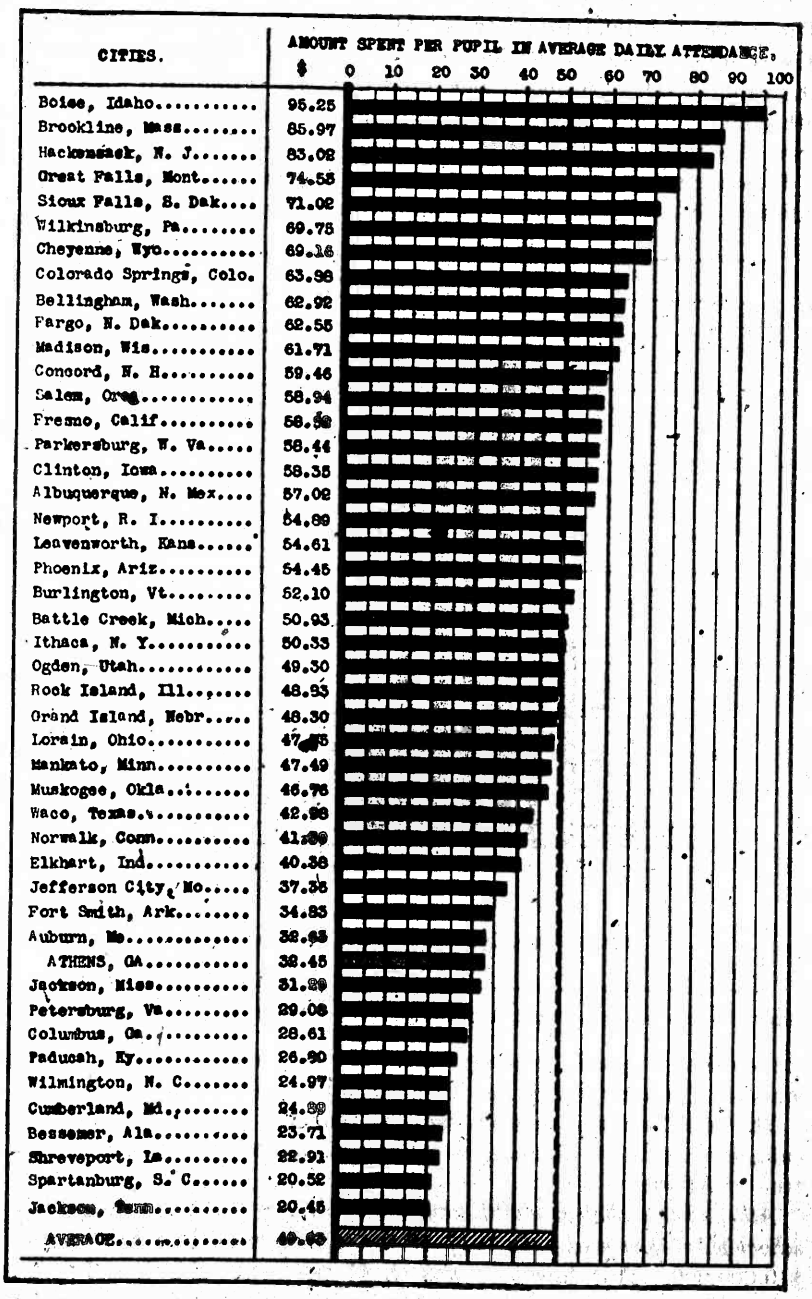


CHART V.—Athens stands 11th from the bottom in a list of 45 cities in its per capita expenditure for public schools.

The value of school property in Athens in 1917–18 was $123,000 The number of pupils enrolled in that year was 2,945. Therefore, the value of school property per pupil was $42. Compared with 340 other cities of the same population group, Athens stood twenty-first from the bottom of the list in the amount of its school property.[21]

In other words, these facts show that Athens is far behind other cities of the same population group with respect to the amount of

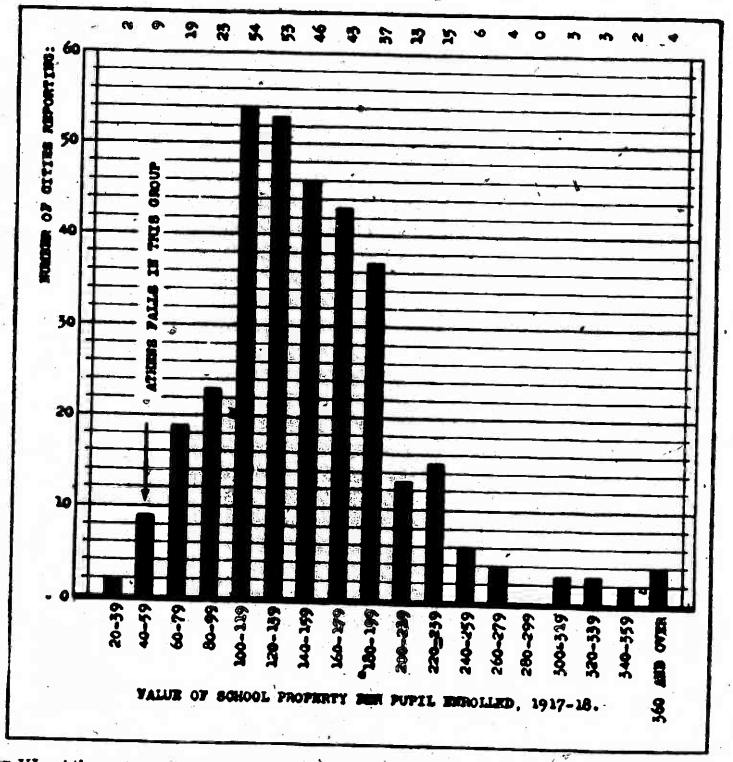


CHART VI.—Athens stands 21st from the bottom in a list of 240 cities in the amount of its school property.

money that it spends annually on its schools, and with respect to the amount of money that it has invested in its school plant.

The usual answer to such facts is that the community has not sufficient wealth to finance its schools adequately. But this is not true of Athens.

Athens has sufficient wealth to give the children of the city the kind of school plant they need.—In 1917–18 the taxable wealth of Athens was $10,000,000. This, however, was on 67 per cent valuation of property. The true value of the taxable wealth, on a 100 per cent valua-

[21] See Statistics of City School Systems, H. R. Bonner, U. S. Bu. Educ. Bul. 1920, No. 24, pp. 467, 324, and 123. See about quoting individual cities, p. 467.

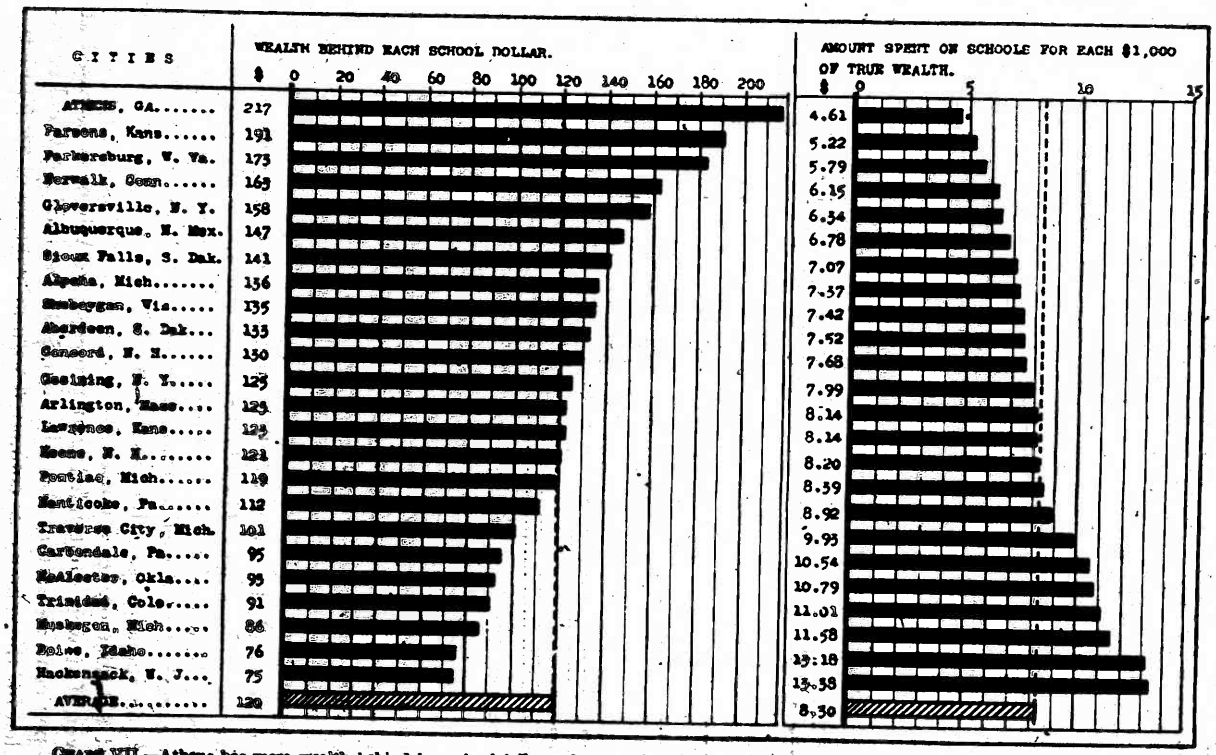


CHART VII.—Athens has more wealth behind her school dollar and spends less money for every $1,000 of true wealth than any other city of this group of 28 cities.

tion, was $14,925,000. Compared with 23 other cities whose wealth is also estimated on a 100 per cent valuation, Athens stands highest in the amount of wealth behind the school dollar.[22] (See Table 3.)

The following table shows that Athens spent $1, for school purposes for every $217 it possessed, whereas the average city in the group expended $1 on schools for every $120 of wealth it possessed.

TABLE 3.—*True wealth behind every school dollar in 24 cities.*[1]

Cities.	True value of taxable wealth.	Expenditures for public schools.	Number of dollars behind every dollar spent on schools.	Amount spent on schools per $1,000 of true wealth.
Athens, Ga.	$14,925,000	$68,797	$217	$4.61
Parsons, Kans.	13,310,000	68,544	194	5.22
Parkersburg, W. Va.	24,880,000	203,797	123	5.79
Norwalk, Conn.	25,126,000	154,436	163	6.15
Gloversville, N. Y.	19,826,000	125,697	158	6.34
Albuquerque, N. Mex.	15,746,000	108,714	147	6.78
Sioux Falls, S. Dak.	28,268,000	200,717	141	7.07
Alpena, Mich.	7,845,000	57,847	136	7.37
Sheboygan, Wis.	24,669,000	183,047	135	7.42
Aberdeen, S. Dak.	16,222,000	122,005	133	7.52
Concord, N. H.	18,707,000	142,734	130	7.68
Ossining, N. Y.	10,714,000	85,600	125	7.99
Arlington, Mass.	19,152,000	155,809	123	8.14
Lawrence, Kans.	13,854,000	112,793	123	8.14
Keene, N. H.	11,000,000	90,190	122	8.20
Pontiac, Mich.	25,312,000	212,385	119	8.39
Nanticoke, Pa.	14,454,000	128,988	112	8.92
Traverse City, Mich.	7,756,000	77,013	101	9.93
Carbondale, Pa.	9,953,000	104,888	95	10.54
McAlester, Okla.	6,142,000	65,288	93	10.79
Trinidad, Colo.	9,416,000	105,709	91	11.01
Muskegon, Mich.	25,068,000	293,073	86	11.58
Boise, Idaho.	16,038,000	259,388	76	13.18
Hackensack, N. J.	16,038,000	214,660	75	13.38
Twenty-three cities exclusive of Athens.	362,596,000	3,258,286	120	8.30

[1] See Statistics of City School Systems, H. R. Bonner, U. S. Bu. Educ. Bul., 1930, No. 24.

Furthermore, cities with one-half the wealth of Athens spent more upon their schools than Athens. For example, Traverse City, Mich., with a smaller population and one-half the wealth of Athens, spent more on its schools than Athens; i. e., $1 out of every $101 of wealth as compared with $217 in Athens. Traverse City's true wealth was $7,756,000, and she spent $77,013 on her schools; whereas the true wealth of Athens was $14,925,000, and she spent $68,797 on her schools. Hackensack, N. J., with about the same population and with slightly larger wealth than Athens spent about three times as much on its schools. Her taxable wealth was $16,038,000 and she spent $214,660 on her schools.

Even if it were contended that property in Athens is assessed at 100 per cent valuation, the city had $145 behind every dollar expended for the schools, as compared with an average of $120 in cities

[22] See Statistics of City School Systems, H. R. Bonner, U. S. Bu. Educ. Bul., 1930, No. 24, pp. 427–429; pp. 467–477.

where property is assessed at 100 per cent valuation. In fact, compared with these other 23 cities listed, where the property valuation is on a 100 per cent basis, it is found that only 5 cities out of the 23 had more money behind the school dollar.

Athens spent a smaller proportion of her wealth upon her schools in 1920 than in 1917–18.—It might be thought that these figures for 1917–18 do not represent conditions at the present time, and that in 1920 Athens was spending a greater proportion of her wealth upon her schools. On the contrary in 1920 Athens spent a smaller proportion of her wealth upon her schools than in 1917–18. For example, in 1920 the taxable wealth of Athens, on a 100 per cent property valuation, was $22,500,000.[23] This does not include the territory annexed to the city in 1921. The expenditures for public schools for that year were $90,500.[24] This means that in 1920 the number of dollars behind every school dollar had increased from $217 in 1917–18 to $248.

Even on the basis of the existing 60 per cent valuation of property, the taxable wealth of Athens in 1920 was $13,500,000. The expenditures for schools were $90,500. Therefore, the number of dollars behind the school dollar, even on a 60 per cent valuation of property, was $167 as compared with $145 in 1917–18.

For every $1,000 of true wealth Athens spent about one-half as much on her schools as the average city in a list of 23 cities of the same population group.—The following chart shows that not only did Athens have more wealth behind the school dollar than any other city in the group, but also that she spent for every $1,000 of true wealth less money on her schools than any other city in the group. In 1917–18, for every $1,000 of true wealth, the average amount expended for public schools by 23 cities of the same population group as Athens was $8.30, whereas Athens expended only $4.61 for every $1,000 of true wealth in the community.[25] Even on the basis of 67 per cent assessed valuation of property, Athens spent only $6.87 out of every $1,000, or about three-fourths of the average of cities taxed on a 100 per cent valuation.

From 1917–18 to 1920 Athens actually decreased the amount per $1,000 which she spent on schools.

Although the true wealth of Athens has increased by $7,575,000 since 1917–18, yet Athens in 1920 spent less money on her schools in proportion to her true taxable wealth than she did in 1917–18; i. e., $4.02 for every $1,000 in 1920, as contrasted with $4.61 in 1917–18 for every $1,000 of true wealth.

---

[23] See Appendix V, Taxable wealth of Athens, Ga., 1920.
[24] See Appendix VI, Expenditures for all city departments, Athens, Ga., 1920.
[25] See Chart VII. True Wealth Behind Every School Dollar.

SUMMARY.

Athens was the pioneer in bringing higher education to the youth of Georgia. Will it lead in reconstructing its public school plant so as to bring modern educational advantages to the children of the public schools?

This question states the real significance of a school-building program for Athens at the present time.

Up to the present time Athens has spent far less on her public schools than other cities of the same size.

Athens is fortieth from the bottom of a list of 327 cities of the same population group in its tax rate for schools.

Athens stands tenth from the bottom of a list of 25 cities of the same population group in its per capita expenditure for schools.

Athens stands twenty-first from the bottom of a list of 340 cities of the same population group in the amount of its school property.

Athens' school plant is in deplorable condition.

Athens is to be congratulated upon the fine, progressive spirit of its superintendent, board of education, and teaching force. They are doing their best to give progressive education to the children, but they are trying to do it in the face of almost insuperable obstacles in the way of inadequate buildings and equipment.

There has been no new elementary school building for 12 years.

The schools are so badly congested that there are 439 more children than there are school seats.

With the exception of two poorly equipped cooking rooms, there are practically no modern facilities in the elementary schools. There is not a single auditorium or gymnasium. There are no shops, no science laboratories, no drawing rooms, no music rooms, no libraries. There are only two principals' offices in all the eight elementary schools, and no teachers' rest rooms. In nearly every school the playground space and equipment are entirely insufficient.

A building program costing $318,091 is recommended as the minimum required to meet the most pressing needs of the public schools at the present time.

It is further recommended that in order to give not only adequate classroom accommodations to the children, but also a flexible program of work, study, and play in shops, science rooms, drawing rooms, music rooms, auditoriums, and playgrounds, the schools be organized on the work-study-play or balanced load type of organization. Under this plan it will be possible to give these modern facilities to children for $318,091, whereas under the traditional plan it would cost $570,091.

This expenditure of $318,091 is, however, only a beginning of what the city ought to do in order to develop a modern school plant.

As a matter of fact, if Athens is to relieve existing congestion, provide for the growth of at least 10 years, and consolidate her

present small plants into a few modern up-to-date school buildings with adequate playgrounds, *a building program costing $1,710,120 should be carried out.*

Athens has sufficient wealth to carry out such a program if it is extended over a number of years.

Athens' taxable wealth at present is given at $14,900,000. But at the present time her property is assessed at 60 per cent valuation. If it were assessed at 100 per cent valuation, her true taxable wealth would be $24,833,333. Therefore, the amount of money available for bonds at 7 per cent of the taxable wealth would be $1,738,333. Deducting the $720,000 for outstanding bonds, there would be left $1,018,333 available for school bonds, if property were assessed at 100 per cent valuation.

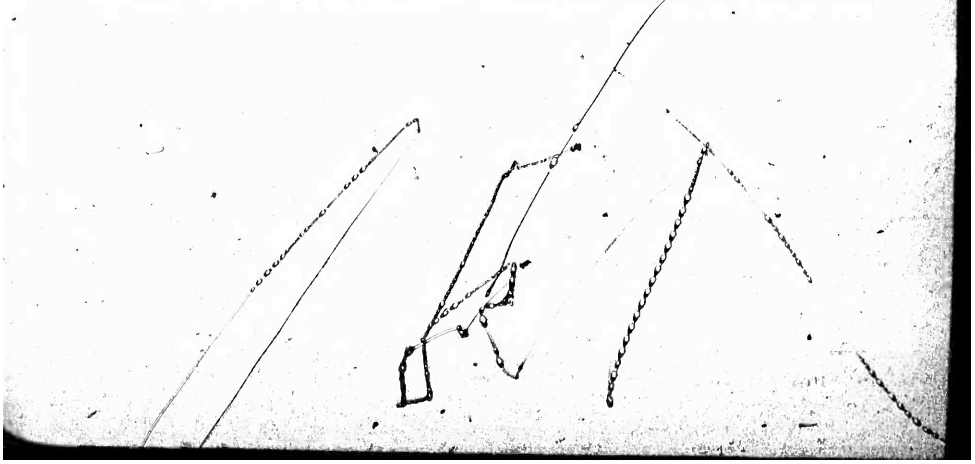
Compared with 23 other cities of the same size, Athens stands highest in the amount of wealth behind the school dollar. Yet for every $1,000 of school wealth Athens spent about one-half as much on her public schools as the average city in a list of 23 cities of the same size.

Furthermore, although the true wealth of Athens increased by $7,575,000 since 1918, yet Athens in 1920 spent less money on her schools in proportion to her taxable wealth than she did in 1917–18.

Athens needs to enter upon a statesmanlike policy of reconstructing her whole school plant.

She has the wealth to carry out such policy. Furthermore, the city has such a real and vital interest in education that there is no question but that, if once the facts regarding the public schools are realized, the people of the city will see to it that their children receive the modern educational advantages which the children of other cities are receiving.

The bond issue for $318,091 is not merely to give buildings to children. It is to give children the chance to grow in health and strength and mental alertness. It is to give them the chance to live.



APPENDIX I.

THE WORK-STUDY-PLAY PLAN IN SOME CITIES.

[From a Report of the Commerce Club of Toledo, Ohio.]

City and State.	Estimated population in 1918.	Number of schools operating under plan.	Attitude of superintendent to plan.	Special remarks.
Winnetka, Ill	5,000	All, on modified form.	Favorable.	Effects saving in capital investment, enriches school program, and makes possible the employment of competent, trained departmental teachers.
Detroit, Mich	850,000	16 this year, 50 next year, modified form.	...do.....	Adjusts plans to facilities of particular buildings; teachers enthusiastic about plan; increases seating capacity of building from 16 to 40 per cent.
Kalamazoo, Mich.	50,000	All, on modified form.	...do.....	Used in third to sixth grades, inclusive, junior and senior high schools, all on departmentalized plan.
Newark, N. J	450,000	9	...do.....	Has decided advantages over traditional plan which more than offset disadvantages. Teachers having had 1 year of successful experience in these schools receive a bonus of 5 per cent.
New Brunswick, N. J.	38,000	1, in modified form, platoon plan.	...do.....	Accommodates 16 sections of pupils to space usually assigned to 13 groups, or increases capacity 23 per cent.
Passaic, N. J.	70,000	2	...do.....	Average per capita annual cost reduced to 5-hour basis for all schools is $42.51 for traditional schools as compared with $32.73 for work-study-play plan schools.
Troy, N. Y	80,000	1, in modified form.	...do.....	Satisfied with plan; children get greater advantages than with old type of school.
New Castle, Pa.	36,000	4	...do.....	Considered a marked improvement over traditional plan; success depends upon the securing of teachers properly trained to do the special teaching which this type of school demands.
Pittsburgh, Pa	504,000	6	...do.....	Will extend the use of the plan.
Sewickley, Pa	6,000	All, for 8 years	...do.....	Has decided advantages over traditional plan.
Swarthmore, Pa.	3,000	All, for 8 years; modified form.	...do.....	Very complete school equipment and program; per pupil cost $97.87.

APPENDIX II.

SCHEDULE SHOWING CAPACITY OF COMPLETE SCHOOL, PER CLASS PERIOD, FOR SCHOOL OF 2,000 PUPILS.

Academic work, 25 classes at 40 pupils each		1,000
Grades 1–4—	Grades 4–9—	
Reading.	Geography.	
Writing.	History.	
Spelling.	English, including foreign language.	
Mathematics.	Civics.	
Music.	Mathematics.	
Special work, classes at 20 to 40 each		480
2 in elementary science (primary and intermediate) at 40	80	
2 in drawing and handwork (1 primary, 1 upper and intermediate) at 40	80	
2 in home economics (upper and intermediate) at 20–40		
1 in arts and crafts (upper and intermediate) at 40	80	
2 in shop for boys (upper and intermediate) at 20–40		
1 in mechanical drawing (upper and intermediate) at 40	80	
2 in general science (upper and intermediate) at 40	80	
1 in music, 1 in expression, third floor (upper and intermediate)	80	
Gymnasiums, 2 classes at 80 each	160	
Playgrounds, 2 classes at 40 each	80	
Auditorium, 7 classes	280	
		520

RECAPITULATION.

Pupils in classrooms		1,000
In special work	480	
In gymnasiums	160	
In playgrounds	80	
In auditorium	280	
		1,000
Total		2,000

DUPLICATE SCHOOL PROGRAM, TYPE A.[1]

Key to classes.		Rooms.	Names of teachers.	Eight 60-minute class periods.							
Class No.	Class Gr.			I	II	III	IV	V	VI	VII	VIII
1	1B	101	Smith		1	2	1	2		1	2
2	1B	102	Jones	3	4		3	4	3	4	
3	1A	102	Harter	5		6	5		6	5	6
4	1A	103	Ames	7	8	7		8	7		8
5	2B	104	Jacobs		9	10	9	10		9	10
6	2B	105	Snyder	11	12		11	12	11	12	
7	2A	105	Brooks	13		14	13		14	13	14
8	2A	106	Aherne	15	16	15		16	15		16
9	3B	107	Mosher		17	18	17	18		17	18
10	3B	108	Metz	23	20		21	24	22	19	
11	3A	108	Glover	21		22	19		23	20	24
12	3A	109	Gorry	19	24	23		20	21		22
13	4B	11	Nature—Fox		11	5	7	6		3	4
14	4B	111	Science—Cear	1	23		15	14	2	8	
15	4A	111	Drawing—Glen	12		20	23		9	10	13
16	4A	112	Hall—Dorr	17	21	24		22	16		19
17	5A 5B	113	Shop—Book	20	22	19			24	18	21
18	5A 5B	114	Shop—Dale								
19	6B	Audito-	Hall—Dorr	2, 6	10, 14	9, 12			17, 19	21, 23	1, 5
20	6A	rium	Johnson	4, 8	12, 15	11, 16			18, 20	22, 24	3, 7
21	7B		Bruns	9, 16	2, 6	1, 8			1, 8	2, 11	9, 15
22	7A	Gym.	Phillips	10, 18	3, 7	3, 13			4, 10	6, 14	11, 17
23	8B	play-	Shafer	14, 22	5, 18	4, 17			5, 12	7, 15	12, 20
24	8A	ground	Gale	24	19	21			13	16	23

[1] The four types of programs and the explanations here given are reproduced from a leaflet published by William Wirt, superintendent of schools, Gary, Ind., 1918.

The school classes are numbered from 1 to 24, as given under "Key to classes." The 12 odd-numbered classes are in a group alternating with the 12 even-numbered classes in the use of classrooms and special facilities. No. 1 alternates with No. 2, etc.

Since each group of classes contains approximately all school grades, they are duplicate groups of classes. This is the reason for using the name "Duplicate school."

If all children in a family enter odd-numbered classes, they will have the same luncheon hour at Period V. If they enter even-numbered classes, they will have luncheon at Period IV.

The academic teachers use classrooms 101 to 109. Four academic teachers use three rooms and accommodate eight classes three periods each. Each academic teacher teaches six periods divided equally between two classes. If it is desired to departmentalize the academic work, each teacher in any group of three can be given three classes two periods each or six classes one period each, as shown for teachers Metz, Glover, and Gorry.

Teachers Smith and Ames have all of their work in rooms 101 and 103, respectively. Teacher Jones has two class periods in room 101 and four class periods in room 102. Teacher Harter has two class periods in room 103 and four class periods in room 102.

Hall and Dorr alternate in auditorium and classroom in music and expression. Gale takes children from play periods for the preparation of auditorium programs.

Pupils may be excused from play periods for library, private music lessons, weekday church school, home work, etc.

DUPLICATE SCHOOL PROGRAM, TYPE B.

Key to classes.		Rooms.	Teachers.	Seven 60-minute class periods.							
Class No.	Class Gr.			I	II	III	IV		V	VI	VII
1	1B	101	Smith	1	1	2	2		1	2	
2	1B	102	Jones	3		4	4		3	3	4
3	1B	103	Harter		5	6	6		5	5	6
4	1A	104	Ames	7	7	8	8		7		8
5	1A	105	Jacobs	13	10		10		10	13	13
6	2B	106	Snyder	14	12	12			12	14	14
7	2B		Brooks	9	9	11	11			11	9
8	2A	107	Aberne	15	15	16	16		15	16	
9	2A	108	Mosher	19		18	18		19	19	18
10	3B	109	Metz		21	20	20		21	21	20
11	3B	110	Glover	23	23	22	22		23		22
12	3A	111	Gorry	27	24		24		24	27	27
13	3A	112	Pearcy	28	26	26			26	28	28
14	4B		Flynn	17	17	25	25			25	17
15	4B	113	Studio—Fox	5	3	1	13		2		11
16	4A	114	Science—Cear	10		15	14		4	6	12
17	4A	115	Studio—Glen	21	19	17			17	8	16
18	5B	116	Shop—Dale	24	20	19	21		18	22	
19	5B	117	Shop—Book								
20	5A	118	Shop—Gore	25	27		28		20	18	23
21	5A	119	Shop—Dorr								
22	6B	120	Science—Hall	26	28	23	27			26	24
23	6B		App.—Cook		22	21	15		9	7	25
24	6A	Auditorium	2½ teachers	11, 16	2, 6	9, 13	1, 5		22, 27	17, 23	15, 21
25	7B			12, 18	4, 8	10, 14	3, 7		25, 28	20, 24	19, 26
26	7A	Gym. playground	3½ teachers	2, 8	11, 16	3, 24	9, 19		6, 13	1, 10	1, 7
27	8B			4, 20	13, 18	5, 27	12, 22		8, 14	4, 12	2, 3
28	8A			6, 22	14, 25	7, 28	17, 28		11, 16	9, 15	5, 10

All children go home for luncheon at the same hour in programs B and C.

Teachers Brooks and Flynn have each of their six class periods in a different room. This excessive traveling can, in part, be divided with the other teachers, but not so successfully as in program A. The upper classes may have their work departmentalized as shown in program A.

Since the auditorium and gymnasiums are in use seven hours in place of six, as in program A, relatively fewer classes are accommodated at any hour in these facilities. The relative amount of space for gymnasiums and auditorium is decreased and a proportionate amount of space is added to classrooms and special facilities.

In *all* duplicate school programs the increase in capacity depends upon the relative amount of gymnasium, auditorium, and special classroom space that is used simultaneously with the regular classrooms, and the total and relative amount of time that each of these school facilities is in use.

DUPLICATE SCHOOL PROGRAM, TYPE C.

Key to classes.		Rooms.	Teachers.	Eight 45-minute class periods with 60-minute noon recess.							
Class No.	Class Gr.			9.00	9.45	10.30	11.15	1.00	1.45	2.30	3.15
1	1B	101	Smith	1	1	2	2	1	1	2	2
2	1B	102	Jones	3	3	4	4	3	3	4	4
3	1A	103	Harter	5	5	6	6	5	5	6	6
4	1A	104	Ames	7	7	8	8	7	7	8	8
5	2B	105	Jacobs	9	9	10	10	9	9	10	10
6	2B	106	Snyder	11	11	12	12	11	11	12	12
7	2A	107	Brooks	13	13	14	14	13	13	14	14
8	2A	108	Aherne	15	15	16	16	15	15	16	16
9	3B	109	Mosher	17	17	18	18	17	17	18	18
10	3B	110	Metz	19	19	20	20	19	19	20	20
11	3A	111	Glover	21	21	22	22	21	21	22	22
12	3A	112	Gorrey	23	23	24	24	23	23	24	24
13	4B	113	Studio—Glenn	8	2	7	1	10	4	9	3
14	4B	114	Shop—Fox	10	4	9	3	12	6	11	5
15	4A	115	Science—Cear	12	6	11	5	8	2	7	1
16	4A	116	Studio—Dale	20	14	19	13	22	16	21	15
17	5A 5B	117	Shop—Book	22	16	21	15	24	18	23	17
18	5A 5B	118	Shop—Gore								
19	6B	119	Science—Hall	24	18	23	17	20	14	19	13
20	6A	Gym.	Bruns	2, 14	8, 20	1, 13	7, 19	2, 14	8, 20	1, 13	7, 19
21	7B	play-	Phillips	4, 16	10, 22	3, 15	9, 21	4, 16	10, 22	3, 15	9, 21
22	7A	ground	Shafer	6, 18	12, 24	5, 17	11, 23	6, 18	12, 24	5, 17	11, 23
23	8B										
24	8A										

The auditorium is omitted, but, of course, can be substituted for part of the special work. If the school has an auditorium and does not care to use it for regular auditorium exercises, it might be used as a music studio.

A 5-hour day for teachers and students can be arranged by shortening the afternoon periods. The special work in the morning may then be divided into six 30-minute periods, if uniform periods are desired.

In *all* duplicate programs additional academic work can be substituted for part of the physical training and special work. Some other type of work can be substituted for "Application." The auditorium may be omitted in any program by substituting additional academic or special workroom units. The day may be shortened by reducing the length of periods or changing the number of periods. Primary children may be given more play than upper grades. Academic or special work for two continuous periods may be broken up by changing classes every hour. This will also give academic work during Period II to the classes that would otherwise not get academic work until Period III.

Pupils may be given longer hours than teachers without employing extra teachers because a less number of teachers than classes are in the auditorium and playgrounds.

The writer has worked with more than 50 different types of duplicate school programs. Almost any kind of school can be secured by changing the length, number, or grouping of the periods, the type and the sequence of work, and the school hours for pupils or teachers.

DUPLICATE SCHOOL PROGRAM, TYPE D.

Key to classes.		Rooms.	Teachers.	Ten 45-minute class periods with a noon recess.									
Class No.	Class Gr.			I	II	III	IV	V	VI	VII	VIII	IX	X
1	1B	101	Smith	1	1	2		2	1	1		2	2
2	1B	102	Jones	3	3		4	4	3		3	4	4
3	1A	103	Harter	5	5	6	6	6		5	5	6	
4	1A	104	Ames	7		7	8	8	7	7	8		8
5	2B		Jacobs		7	4	2		5	3	1	8	6
6	2B	105	Snyder	9	9	10		10	9	9		10	10
7	2A	106	Brooks	11	11		12	12	112		11	12	12
8	2A	107	Aherne	13	13	14	14	14		13	13	14	
9	3B	108	Mosher	15		6	16	15	16		15		16
10	3B		Metz		15	12	10		3	11	9	16	14
11	3A	109	Glover	17	7	18		18	17	17		18	18
12	3A	110	Gorry	19	9		20	20	19		19	20	20
13	4B	111	Pearcy	21	21	22	22	22		21	21	22	
14	4B	112	Flynn	23		24	23	24	23	23	23		24
15	4A		Cook		23	20	18		21	19	17	24	22
16	4A				2	14	8	19		20	7	13	1
17	5A 5B	Audito-	Dale		4	16	9	21		22	10	15	3
18	5A 5B	rium.	Book		6	18	11	24		23	12	17	5
19	6B	Gym.	Johnson	2, 12	2, 4	1, 3	1, 3			2, 4	2, 4	1, 3	7, 11
20	6A	and play-	Bruns	14, 16	6, 8	19, 21	5, 9			6, 10	20, 22	5, 7	13, 15
21	7B	grounds.	Phillips		18	10	23	11			12	24	9	17
22	7A	113	Studio—Fox		10	12	5	7			8	6	11	9
23	8B	114	Studio—Oar		20	20	13	13			14	14	19	19
24	8A	115	Science—Door		22	22	15	15			16	16	21	21
		116	Shop—Hall	24	24	17	17				18	18	23	23
		117	Shop—Gate										

Teachers Jacobs, Metz, and Cook should teach drawing, music, or some special subject that can be taught in regular classrooms. If desired, the continuous academic periods may be broken up as shown for teacher Flynn with classes Nos. 23 and 24.

The following table gives comparative data concerning the four program types.

Program types.	Hours in use.				Hours classwork.		Teachers per class.	Room units per class.
	Class-rooms.	Gyms.	Aud.	Special rooms.	Teachers.	Pupils.		
A	8	6	6	6, 8	6	7	1.00	0.563
B	7	7	7	7	6	7	1.03	.714
C	6	6	6	6	6	6	.91	.791
D	7½	6	6	6	6	6½	1.04	.708

"Room units per class" does not include auditorium and gymnasium space.

APPENDIX III.

DESCRIPTION OF TYPE BUILDING OF WHICH A DIAGRAM IS SUBMITTED.

THE CLASSROOMS.[1]

The interior arrangement of the building calls first of all for classrooms sufficient in number to house 50 per cent of the pupils at any one time.

Usually the subjects of reading, writing, arithmetic, English, and spelling are taught in these classrooms, and normally at least half of the children's school day is devoted to these subjects. If the school day is six hours in length, about three hours daily will be spent in classrooms. Of course the length of the day can vary as much as is desirable. The above merely states what the usual arrangement and balance is, where the plan is used successfully.

Geography, history, and civics are sometimes classified as regular classroom subjects, but generally in the complete schools these are considered special or laboratory subjects. Although only half the children's time is spent in the classrooms, the other subjects supplement in various ways the drill subjects in the classrooms; so in reality children may spend more than half the time in the fundamental subjects. Comparing this time with the time in the traditional school, we find that no time is taken from the fundamental subjects by changing the type of organization and plan of operation from a traditional one to one which gives adequate recognition to all vital considerations in education, viz, health, the fundamental operations, manual skill, wholesome recreation, and ethical character.

On the other hand, if school authorities wish to classify as classroom subjects geography and history, as well as reading, writing, and arithmetic, it is possible to so classify them in the complete work-study-play school, and give the same amount of time to them—210 minutes—as in the traditional school.

GYMNASIUMS.

Two gymnasiums are provided for in the plan, one for girls and one for boys. These include dressing and shower rooms, as well as offices for the instructors, physician, and nurse, and space for clinics. Located at the rear of the building, they open directly to the playground. A roof playground could be added, to be used for play classes during the inclement weather as well as for open-air classes. A total of from 6 to 8 classes could be handled during each period by the gymnasium and playgrounds without congestion.

SHOPS.

The workshops for boys include woodwork, staining and finishing, mechanical drawing, and may include printing, metal work, or other shop activities. The activities for girls include home economics and the arts and crafts, although, of course, girls as well as boys may elect to do the work in mechanical drawing, printing, metal work, and other shop activities. Four classes (160 pupils) can be accommodated in these prevocational quarters. This approximates about 80 students in the shops and 80 in the home economics quarters.

AUDITORIUM.

An auditorium with a seating capacity of 800 could be provided, but it is scarcely possible to get that number of children in one school into a homogeneous group. Seven

[1] See pp. 26-27.

or eight classes for each period would be a normal group for a 50-class school. Then, if the auditorium day is six periods, all the classes will enjoy the advantages of the auditorium activities in the course of the day. Undoubtedly the auditorium activities have passed the experimental stage. It is obvious that chorus singing, visual instruction, appreciation lessons in music, art, and achievement can not be developed as well in classrooms as in the auditorium, because auditorium equipment is best suited to that type of instruction. Furthermore, the auditorium is the best place for definite instruction on such topics as thrift, citizenship, community, and current topics of all kinds.

Auditoriums will serve community uses, of course, and it is for this purpose, as well as those enumerated above, that they are usually included in a complete school. Many school people make the mistake of planning auditoriums that are overlarge. Medium-sized auditoriums are better for daily use, and it is only on rare occasions that an auditorium large enough to accommodate the whole school is needed. The smaller assembly room is more practical for daily school uses, but where several schools are being planned at the same time it is advisable to plan the largest auditorium in the one school that is the most central.

LABORATORIES.

Four laboratories are included, two for the younger children and two for the older. Two of these have greenhouses and can be specialized for nature study and horticulture. Nature study is science taught by observation and by contact with natural and living phenomena. Every normal child is a natural scientist, curious to know all about the natural phenomena about him. Only a small per cent of our children have opportunities for plant culture and animal nurture at their homes. The school must provide these life experiences in most cases. Gardening is usually considered a part of this elementary science, and it is a good plan for the greenhouses to open out on the gardens. These rooms may also be used for handwork rooms for the younger pupils, since much of their handwork will or should be a direct outgrowth of the nature study.

General science is a term applied to more advanced and specific instruction than that just mentioned above; for example, botany, zoology, chemistry, and physics in elementary schools. The aim in all this science instruction is really to develop a usable fund of knowledge about common things.

APPENDIX IV.

ENROLLMENT IN PUBLIC SCHOOLS, ATHENS, GA., 1913-14 TO 1919-20, INCLUSIVE.

Name of school.	1913-14.	1914-15.	1915-16.	1916-17.	1917-18.	1918-19.	1919-20.	Jan. 31, 1921.
ELEMENTARY.								
White:								
Baxter Street	299	341	307	297	292	272	305	294
Childs Street	278	299	372	405	398	348	410	421
College Avenue	497	541	486	513	419	406	429	434
Oconee Street	221	229	226	255	259	259	260	260
Nantahala Avenue	181	220	166	166	183	196	222	190
Total white	1,469	1,630	1,559	1,636	1,541	1,483	1,616	1,579
Negro:								
East Athens	362	366	384	416	348	298	429	399
West Athens	221	246	277	276	257	262	291	407
Newtown	209	211	220	203	182	129	182	173
Reese Street	338	366	337	343	288	180	163	163
Total Negro	1,130	1,189	1,218	1,238	1,075	869	1,045	1,135
Total white and Negro elementary	2,599	2,819	2,777	2,874	2,616	2,352	2,661	2,714
HIGH SCHOOLS.								
Athens High (white)	254	264	308	288	312	316	345	391
High and Industrial (Negro)	50	47	59	76	99	98	111	115
Grand total	2,903	3,130	3,144	3,238	3,027	2,766	3,117	3,220

APPENDIX V.

TAXABLE WEALTH OF ATHENS, GA., 1920.

Real property	$8,536,125
Personal property	4,963,875
Total	13,500,000
If property were assessed at 100 per cent valuation instead of 60 per cent, the taxable wealth would be	22,500,000

APPENDIX VI.

EXPENDITURES FOR ALL CITY DEPARTMENTS, ATHENS, GA., 1920.

City departments.	Expenditures, 1920.
Aldermen	$2,400.00
Advertising	1,784.18
Assessors	1,225.00
Bond commission	12,141.00
Damages	125.00
Charity	2,982.64
City hall	3,773.22
Fire department	30,415.02
Health department	28,455.29
Insurance	750.69
Street lights	13,196.84
Miscellaneous	314.02
Police department	$35,382.75
Printing	650.99
PUBLIC SCHOOLS	90,500.00
Stockade	2,068.76
City hall offices	15,788.54
Streets	27,589.71
Sewers	1,353.57
Stock feed	6,381.10
Water works	51,883.43
Total	329,167.75