

ILLUSTRATION 1

The exterior of the Fort Lupton Elementary-High School building presents a rather attractive appearance. The interior, including stairways, floors, walls, and ceilings, are of wood. The roof is entirely of wood. These exterior walls of brick offer practically no protection against fire, but rather form what, in case of a conflagration, would amount to sides and ends of a stove in which many of Fort Lupton's children would be consumed among burning wooden walls and stairs.

Note to the right one of only two fire escapes. The central entrance has no panic bolt on the doors.

Each day in the United States there is an uncontrolled fire in six such school buildings and daily one burns to the ground.

COLORADO STATE TEACHERS COLLEGE

REPORT OF THE
SCHOOL SURVEY
AND
EDUCATIONAL PROGRAM

FOR FORT LUPTON, COLORADO

School Year 1924-25

GREELEY, COLORADO

Published by the College

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FOREWORD

The Report of the Fort Lupton School Survey and Recommended Elements for an Educational Program represents but a minor part of what is accomplished for a community when our Bureau of Educational Surveys conducts a survey of a local school system. The printed report does not record the amount of energy expended by the surveyors with the board, superintendent and teachers in an effort to raise the community's educational standards.

Surveys of local school systems are conducted by our bureau in accordance with either of two plans:

First: The Bureau of Surveys carries on the entire enterprise without the direct assistance of local teachers.

Second: The bureau surveys the school system in co-operation with teachers of the local staff who enroll in an extension class for credit in educational surveys.

Modifications of these two plans are made when necessary to meet varying local conditions. Because it is desirable to bring teachers into intimate contact with the vital educational problems of their school the second plan should be preferred. Whichever plan is utilized College instructors with their most capable graduate students will, when feasible, participate in that part of the survey in which they are expert.

The aim of the survey is being realized when the community effects desirable changes in educational practices along lines proposed. For the tangible results of the survey one must go to the local school system.

It is upon a progressive superintendent, teachers, and board, who did much to bring the survey to Fort Lupton, and upon succeeding superintendents and teachers working with a co-operative community, that the responsibility for effective progress depends.

The published report in abstract form serves in a limited way to indicate to interested citizens, to boards of education and to superintendents of schools, the type of service the College through its Bureau of Surveys is prepared to render city and county school systems.

GEORGE WILLARD FRASIER

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CHAPTER I

THE FORT LUPTON DISTRICT

SIZE AND LOCATION

The city of Fort Lupton, Colorado, is situated in Weld County, in the heart of one of Colorado's most prosperous sugar producing regions. It is the social and economic center of a district 10 miles long and 3 to 4 miles in width which lies midway between Denver and Greeley. The city is located on the trans-continental railway lines of the Union Pacific and is on the paved highway between Greeley and Denver, Colorado.

The 1924 population of the city was estimated at 1,550. The total population for the entire district is probably 2,000.

Figure 1 is a map of the Fort Lupton school district and bordering districts. The heavy lines represent the present boundaries of the Fort Lupton district. Roads, sizes and locations of schools in districts number 19, 23, 100, 102, 104, suggest excellent possibilities for further consolidation.

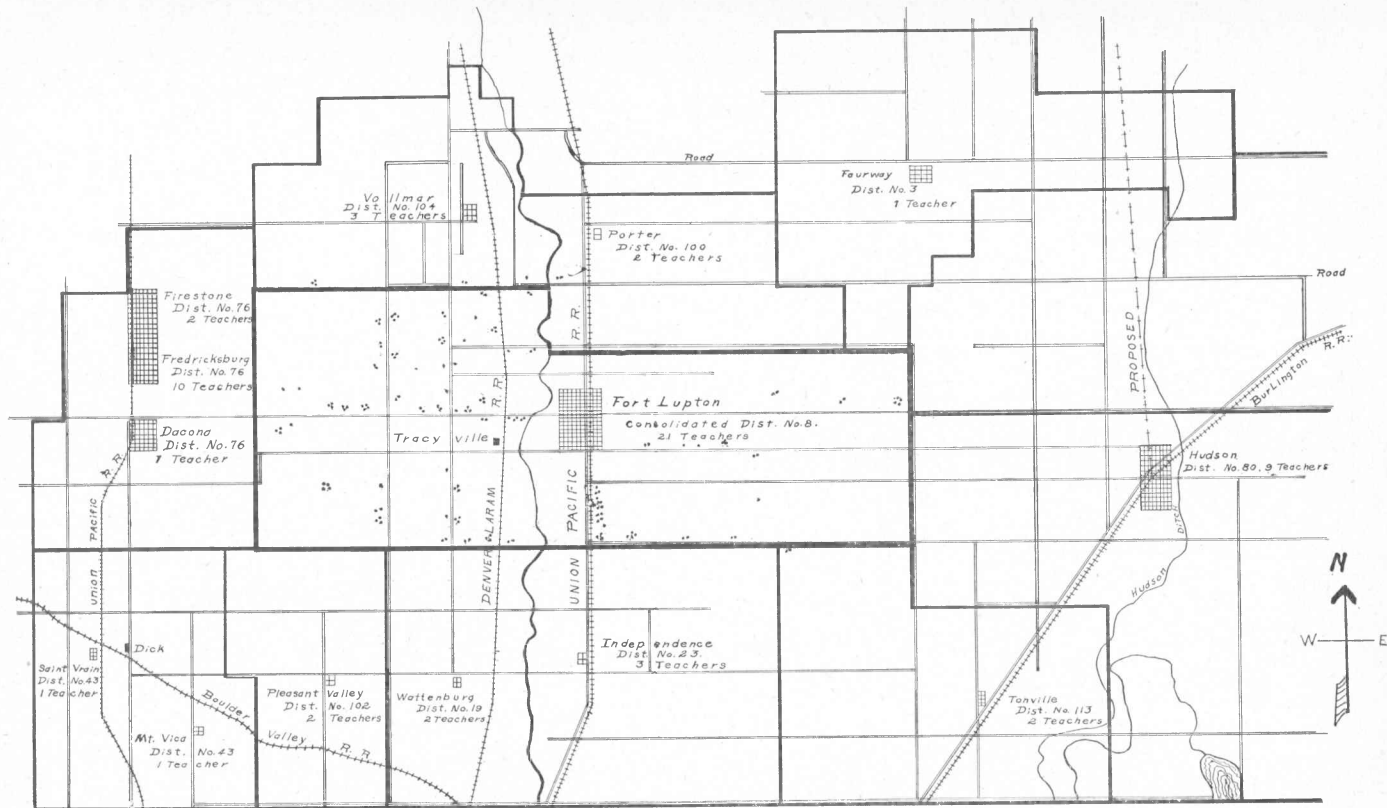
INDUSTRIES

In this district of approximately 35 square miles all the varied crops that can be raised in the entire state of Colorado can be produced. Marketed crops consist largely of sugar beets, beans, peas, pickles, and cabbage. A beet sugar factory employing some 200 people is operated for from 90 to 120 days. About 300 men and women are employed in Fort Lupton's canning factories. As many as 20 cars of cabbage have been shipped from Fort Lupton in a single day. Cabbage shipping of course constitutes another seasonal industry. The largest non-seasonal industry other than farming is the condensing of milk.

THE SCHOOL

Since 1913 when district Number 8 and district Number 9 were consolidated into district Number 8, all the schools have been housed in a single building. One superintendent, twenty teachers, one superintendent's clerk, one janitor, one attendance officer, and four bus drivers constitute the school personnel. The assessed valuation of the district in 1924 was \$3,521,590.00. The total investment in building, equipment, grounds, etc., represents a capital outlay of \$157,500.00. At present the school district is bonded for \$88,300.00. It costs roughly \$43,000.00 annually to operate the schools. Four bus routes serve to transport the children to and from school in the rural areas.

Fig. 1. FORT LUPTON AND CONTIGUOUS SCHOOL DISTRICTS, STATE OF COLORADO



(1 Dot Represents a School Child in the Rural Areas)

CHAPTER II

ORGANIZATION AND ADMINISTRATION

CONTROL OF THE SCHOOLS

The Fort Lupton schools are in a second class district. The control of the affairs of the Fort Lupton Consolidated School is vested by law in a three-member board of education. The state law empowers this board of education to employ and dismiss teachers, fix teachers' salaries, employ attendance officers, furnish free textbooks, provide transportation at district expense for all children living farther than one mile from school, make rules for the government of the school, select textbooks, establish high schools, hold in trust all school moneys, etc.

THE BOARD OF EDUCATION

Board members hold their office for three years. Annually one member is elected, at large, to a given position—president, secretary, or treasurer. Board members are elected at special school elections. There are no standing committees, thus making it possible for the board to act as a unit on all matters brought before it. The above organization is in conformity with Colorado law. In this respect the educational code embodies features of which Coloradans may be proud. Such a system makes possible the election to the board of a high type of representative citizens. The small number of members and no standing committees make for efficiency in the carrying on of the board's business.

HOW THE BOARD DOES ITS WORK

It is generally accepted as good policy in big commercial enterprises as well as in the management of schools that the function of boards of directors should be of a legislative nature.

The first duty of the board of education is to employ competent administrative service in the person of a superintendent of schools. The board functions then become the duty of passing upon policies submitted by the chief executive, and examination of reports with a view to determining to what extent policies decided upon and rules formulated are being carried out.

A common fault among board members in our smaller cities is that they misinterpret their function as board members. They construe their election to the board to mean that they are now to "run" the schools. The result is that such board members give a great deal of their time and energy in inefficiently doing what they have in reality hired a superintendent of schools to do. In all business affairs, including management of schools, it has been found through experience that executive functions exercised by legislative bodies is both unwarrantedly expensive and extremely inefficient.

The distinction in school work between formulation and approval of policy and participation in administrative detail is not always easy to make. Although the Fort Lupton board has dem-

onstrated that it recognizes such a distinction and seems to be desirous of giving the superintendent free reign in the performance of his duties, yet an analysis of the Minute Book, the authoritative record of the board's official acts, shows that the board has repeatedly erred on the side of the performance of too many minor administrative details.

The minutes of the board meetings from May 8, 1922, to December 10, 1924, were examined. There were nineteen meetings during which seventy-two separate items of business were handled. These items are classified below under eleven heads for purpose of showing the type of business done at the majority of board meetings. The sub-items included in quotation marks are to illustrate the scope of the headings.

Business Having to do with—	No. of Items
1. Examining bills for payment.....	17
2. Teacher selection and salary—salaries.....	12
3. General plans	6
"Plans for year presented by superintendent"	
"Various problems discussed"	
"Superintendent gave a report on Institute"	
"Appropriated \$200 for tests and measurements"	
4. Making definite rules	3
"No buying in any department until the order has had the sanction of the school board at a meeting in giving entertainments"	
"No dances in the school building except for the high school, and these shall not exceed four a year"	
5. Adopting budget	1
6. Tuition	4
"Rate of tuition discussed and determined"	
"Decided to accept a lump sum from the county for high school tuition"	
7. Busses and drivers.....	5
"Determined salaries"	
"Accepted bid on gasoline"	
"Decided on liability insurance for busses"	
8. Building repairs, supplies, and new equipment.....	11
"Gave bid for coal"	
"Instructed superintendent to have roof painted"	
"Accepted bid for bell system"	
"Matter of exits in auditorium discussed"	
9. Use of building by outsiders.....	4
10. Text books	3
"Gave sale of texts to....."	
11. Other detailed items.....	6
"Secretary instructed to see that girls' showers be fixed, and also exit light"	
"Secretary instructed to buy domestic science equipment"	
"Secretary to look up oil bids"	

The most striking facts in this connection are that during the period covered (May 8, 1922, to December 10, 1924,) the budget was considered but once, while seventeen, or one-fourth, of all items in the minutes for nineteen different meetings had to do with the examination of bills. The matter of examining bills for payment

is a clerical task that can well be performed by the superintendent's clerk who has proper office facilities for the efficient performance of the same. The control, by the board, of expenditures to be made should come at the time the budget is considered and approved. There, once, annually, the board should authorize expenditures that would make possible the carrying out of approved education programs. The auditing of bills then becomes a routine matter of checking against purchase orders, ledger and appropriation accounts. This indeed is a detailed matter the performance of which does not demand the time and energy of board members.

Twelve (12) items deal with selection of teachers and salaries. Again, the selection of teachers should be left to the superintendent, who knows how to perform this highly technical task in a much more satisfactory manner than do board members. Board members who have given up this work to their duly appointed school experts find that service on the board becomes a much less irksome task, and usually better teachers are selected.

The salary question should not be a matter for consideration every few months. Policies should be adopted upon which salary schedules can be established, the chief executive officer should then be obligated to pay salaries in accordance with accepted schedules.

Boards of education are entrusted by law with large powers none the least of which is the right to appoint a competent man as superintendent to administer the schools. Their other duties pertain to the making of legislation necessary to the proper functioning of the school, receiving reports and determining upon large comprehensive policies and programs.

THE INTERNAL SCHOOL ORGANIZATION

In theory the school is organized on the 6-2-4 basis. In practice, however, it is rather hard to distinguish between the type of work that is done in the seventh and eighth grades and that done in the seventh and eighth grades of any ordinary 8-4 school. All schools, elementary, junior high, and senior high, are housed in a single building. The strictly junior high school idea can usually be carried out more true to form when a separate building is provided therefor. Although the separate building is impracticable, for the present, for the junior high school there can be marked changes effected in the curriculum offerings for children of junior high school age. In the true 6-2-4 type of organization Fort Lupton would have what is a fairly satisfactory type of school organization.

The present organization is faulty in the following respects: The health work is at present more under the control of city than school officials. The attendance officer is a city marshal and bus drivers are only indirectly under the control of the school authorities, because Fort Lupton operates under the contract system of school transportation. Because of the use of the contract system in procuring janitor service, janitors are only indirectly responsible to the superintendent. The head janitor employs whatever help he desires.

**COLORADO STATE
TEACHERS COLLEGE**

Greeley, Colo.

THE SCHOOL PERSONNEL

The following employees of the school district constitute the staff which is charged with the duty of operating the above school organization :

- 1 Superintendent of schools
- 1 Supervisor of music and art (also a teacher in high school)
- 6 Teachers of high school subjects
- 13 Teachers of elementary school subjects
- 1 Janitor
- 1 Superintendent's clerk
- 4 Bus drivers

THE SUPERINTENDENT

The entire administration of the schools is well headed up under the authority of a single individual, the superintendent of schools. This is as it should be. Many school boards throughout the country have made the mistake of setting up a dual control in the schools—one person in charge of educational affairs while a different individual is placed in a co-ordinate position in charge of financial affairs. The Fort Lupton board has in this respect wisely conceived the advantages that come from single unified control. Business affairs of the schools are recognized as being an integral part of the whole educational situation. The added efficiency that accrues to the Fort Lupton schools because of this approved administrative organization can hardly be overestimated.

At the present time the entire school staff is apparently working in harmony and under the present leadership it is furnishing abundant evidences of growth. When the number and variety of problems that press upon the superintendent for solution and the multitudinous duties he is forced to perform are taken into consideration, the question may well be asked as to whether under the present organization Fort Lupton is employing sufficient administrative and supervisory assistants.

A partial list of the duties performed by superintendents in the smaller cities of Colorado, which serves to give an idea of the overwhelming number and variety of tasks involved in the superintendency, has been submitted as supplemental material.

THE PRINCIPALSHIPS AND SUPERVISION OF INSTRUCTION

At present Fort Lupton has neither a high school nor elementary principal.

The survey staff is not prepared to recommend that Fort Lupton employ a high school or elementary school principal. There is evidence, however, that it is an absolute impossibility for a single individual, the superintendent, to perform all the duties of administration for which he is responsible and at the same time do the supervision of class room work, which is as essential to a school organization as supervision is necessary in a large department store, factory, or laboratory. What other schools the size of Fort Lupton do in regard to the employment of principals is shown in Table I.

TABLE I

THE PRACTICE OF 16 SCHOOLS IN EMPLOYING SUPERINTENDENT, HIGH SCHOOL AND ELEMENTARY SCHOOL PRINCIPALS
—1924-25

SCHOOLS	Supt.	H. S. Prin.	Elem. Prin.
1. Eaton, Colorado	x	x	x
2. Florence, Colorado	x	x	x
3. Primero, Colorado	x	x	x
4. Cripple Creek, Colorado	x	x	x
5. Glenwood Springs, Colorado	x	x	x
6. Del Norte, Colorado.....	x	x	x
7. Mancos, Colorado	x	x	x
8. Gallatin, Missouri	x	x	x
9. Center, Colorado	x	x	
10. Burlington, Colorado	x	x	
11. Bucklin, Kansas	x	x	
12. Shelton, Nebraska	x	x	
13. Ajo, Arizona	x		x
14. Wallace, Idaho	x		
15. Aguilar, Colorado	x		
16. FORT LUPTON, COLORADO.....	x		

Eight, or one half, of these schools employ both high school and elementary school principals, four others employ a high school principal besides the superintendent and one elementary principal. But two of these towns besides Fort Lupton employ only a superintendent.

The wisest policy for the present as far as Fort Lupton is concerned may be the employment of a single administrative officer. If this policy is continued, a competent teacher in the elementary grades should be relieved of part of her teaching load that she may act in the capacity of head teacher, whose duties shall be the coordination of the work of the grades, provide educational leadership to elementary teachers, and be responsible for many of the details of pupil management. It seems logical to suggest that Fort Lupton may well make up for the lack of educational supervision that now obtains in both elementary and high school by employing for a month or two of each semester the expert instructional supervisors obtainable at either Colorado State Teachers College or the University of Colorado. These institutions are located but a few miles from Fort Lupton.

This past year Fort Lupton employed but one special supervisor, a supervisor of music and art, who also taught these subjects in the high school. The arrangement seems satisfactory

enough so far as music and art are concerned if the right individual can be secured for this very important position.

Matters pertaining to teachers, janitors, and bus drivers are considered in succeeding chapters.

THE SUPERINTENDENT'S CLERK

In the employ of District No. 8, during the past year, has been a young woman of rather exceptional native ability who has been acting as superintendent's clerk and director of the group editing the high school paper. Fort Lupton has evidently early realized what more and more schools of the country are coming to understand, namely, the fact that it is far more economical for the district to employ a girl at a comparatively low salary to do multitudinous tasks in connection with office routine that a comparatively high priced man can scarcely do as well. This clerk by keeping up routine records, passing out pencils, caring for small stocks of educational supplies, and other details frees the superintendent, enabling him through careful planning and organizing to save the school district thousands of dollars.

That Fort Lupton is not alone in realizing the wisdom of the adoption of such business methods is shown in Table II. Ten of the 16 cities used for comparison have either a full or part time clerk in the superintendent's office.

TABLE II.

PRACTICE OF 16 SCHOOLS IN EMPLOYING A FULL OR PART TIME CLERK FOR THE SUPERINTENDENT'S OFFICE—1924-25

SCHOOLS	F. Time Clerk	Pt. Time Clerk	No Clerk
1. FORT LUPTON, COLORADO.....	x		
2. Center, Colorado	x		
3. Eaton, Colorado	x		
4. Wallace, Idaho	x		
5. Burlington, Colorado	x		
6. Florence, Colorado	x		
7. Bucklin, Kansas		x	
8. Aguilar, Colorado		x	
9. Primero, Colorado		x	
10. Ajo, Arizona		x	
11. Gallatin, Missouri			x
12. Del Norte, Colorado.....			x
13. Glenwood Springs, Colorado.....			x
14. Cripple Creek, Colorado.....			x
15. Shelton, Nebraska			x
16. Mancos, Colorado			x

Table III shows that five of the six cities that do not employ a clerk for the superintendent's office do employ an elementary principal. The principals in these cases to some degree do the work of the clerk. When one realizes that the salary for elementary principals in cities in the United States the size of Fort Lupton is \$2,057.00 and the average salary for superintendent's clerks is \$850.00 it is not hard to decide whether the clerk or the principal should be employed for the performance of the details involved in clerical service.

TABLE III.

AMOUNT OF SUPERVISORY AND CLERICAL ASSISTANCE EMPLOYED BESIDES THE SUPERINTENDENT; IN 16 COMPARABLE SCHOOLS—1924-25

	H. S. Prin.	Elem. Prin.	Full Time Sec.	Part Time Sec.	P'nts*
1. Eaton, Colorado	x	x	x	x	11
2. Florence, Colorado	x	x	x		11
3. Primero, Colorado	x	x		x	10
4. Cripple Creek, Colo.....	x	x			9
5. Glenwood Springs, Colo..	x	x			9
6. Del Norte, Colorado.....	x	x			9
7. Mancos, Colorado	x	x			9
8. Gallatin, Missouri	x	x			9
9. Center, Colorado	x		x		7
10. Burlington, Colorado	x		x		7
11. Bucklin, Kansas	x			x	6
12. Ajo, Arizona		x		x	5
13. Shelton, Nebraska	x				5
14. Wallace, Idaho			x		2
15. FORT LUPTON, COLO..			x		2
16. Aguilar, Colorado.				x	1

* In this comparison it was considered that a high school principal is of at least 5 times the value to the superintendent as a clerk; an elementary principal 4 times, and a full time clerk twice as valuable. It is seen that Fort Lupton's position in respect to amount of supervisor and clerical assistance furnished the superintendent is at the foot of the list of 16 comparative school systems.

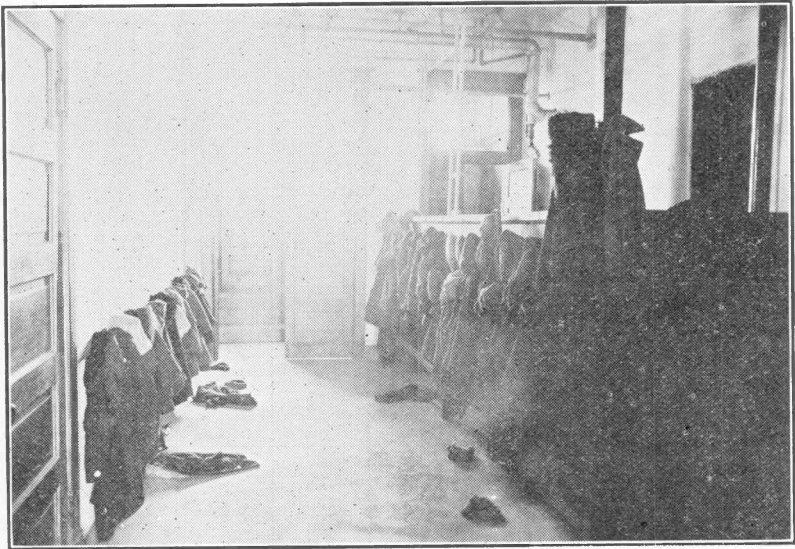


ILLUSTRATION 2

This shows the provisions made for the care of the children's and teachers' wraps. In many instances two or three coats and caps are hanging on a single hook. The wooden pole to the right substitutes for the teachers' closets. In modern buildings well heated and ventilated closet space, under control of the teacher, in the rear of classrooms replaces this inadequate, unsatisfactory situation. The door to the left is the entrance to one of the two extremely undesirable basement rooms for the first and second grades.

RECOMMENDATIONS BASED ON FINDINGS OF THE SURVEY
CONSTITUTING ELEMENTS FOR INCLUSION IN AN
EDUCATIONAL PROGRAM

II.—ORGANIZATION AND ADMINISTRATION

Findings No. 1.

The board is a three-member board. Each member is elected at large at a special election and serves for three years. There are no standing committees.

Recommended Program No. 1.

Continue the present practice, which is almost ideal so far as selection and organization of the board is concerned.

Findings No. 2.

The board is apparently willing to clothe the superintendent with full authority, yet minutes of board meetings show that a large percentage of items considered in board meeting are of a detailed non-legislative type.

Recommended Program No. 2.

The board should confine itself to receiving reports, approving or rejecting important policies, etc., and leave all details and technical matters to the chief executive officer—the superintendent of schools.

Findings No. 3.

The 6-2-4 type of school organization exists at Fort Lupton in name only. Work done in seventh, eighth and ninth grades is very similar to old line curricula.

Recommended Program No. 3.

The 6-3-3 is a good type of school organization. A curriculum study should be undertaken from the highest to lowest grades in co-operation with other cities and towns that are revising their curricula. Experts from the state institutions should help in this work. The Fort Lupton High School courses of study should be modified to meet needs of children who drop out at the end of the ninth grade as well as those who go on to college. Children who drop out become citizens of the commonwealth as well as those who go to college.

Findings No. 4.

The organization is faulty in that health education is under control of a city department over which the school has no control. Bus drivers (because of contract system) are only indirectly under control of the superintendent.

Recommended Program No. 4.

Figure 2 shows the more desirable relationship which should constitute the school organization. This plan brings under control of superintendent health, transportation and all janitors.

Findings No. 5.

The entire school system is in theory headed up under the superintendent—the chief executive officer of the Board of Education.

Recommended Program No. 5.

In so far as the superintendent is actual head of the system, Fort Lupton has the most acceptable school organization. It is the most economical and efficient type of organization and should be continued.

Findings No. 6.

The multiplicity of tasks that the superintendent has to be responsible for makes it impossible to pay as much attention to classroom supervision as is essential. Most cities the size of Fort Lupton employ one or more principals besides full or part time clerks to assist the superintendent. Fort Lupton has neither high school nor elementary principal and but one clerk.

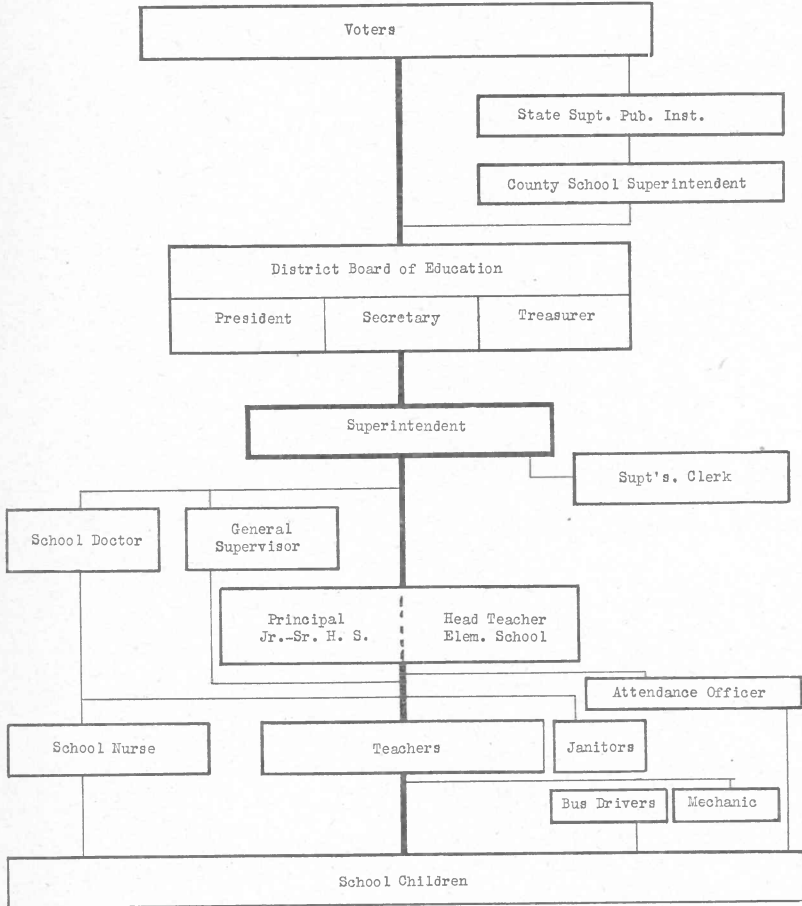


Fig. 2. PROPOSED ORGANIZATION FOR THE FORT LUPTON SCHOOL SYSTEM.

Recommended Program No. 6.

There must be supervisory assistance for the superintendent. The Fort Lupton board should consider the advisability of engaging the services of a high school principal. The following plan might well be tried: Employ an especially competent elementary teacher and appoint her head teacher in the elementary school and organize the home room system in the high school. Eighty-one per cent of the high schools of the country

utilize the home room organization.* In addition capitalize for the best interest of the children by realizing on the benefits that can come to Fort Lupton because of her immediate proximity to a state institution employing scores of supervisory experts. The services of expert supervisors can be obtained at not too great an expense for at least a month or two each semester. It would be better to employ a supervisor for certain days of each week throughout the school year. To regularly employ instructional supervisors would constitute a better arrangement, but it would be more expensive than the plan here proposed as an immediate measure.

Findings No. 7.

Fort Lupton employs a clerk in the superintendent's office, which relieves the superintendent, enabling him to attend to more important administrative duties. This clerk is employed for ten months.

Recommended Program No. 7.

The clerk should be employed for the full year.

* Mr. C. F. Poole found in an investigation of 126 high schools that 92% of school authorities think that the "Home Room" organization contributes materially to the development in each pupil of a spirit of responsibility for the successful operation of student participation in the management of the affairs of the school. A. M. Thesis, Colorado State Teachers College—incomplete.

CHAPTER III

CENSUS, ENROLLMENT AND ATTENDANCE

THE CENSUS

The data taken in the census is not complete and is not entered upon individual record cards. The census is not continuing, and no account is taken of children under six years of age. The fact that children less than six years old are disregarded in the enumeration seriously handicaps educational planning.

COMPARISON OF CENSUS, ENROLLMENT AND ATTENDANCE

A table which presents available figures dating back from 1925 to the school year 1908-1909 has been prepared. During this sixteen-year period the census figures have increased for children of school age from 218 to 739 or 279%; enrollment from 200 to 690 or 290% and average daily attendance has lagged farther and farther behind the enrollment.

Figure 3, which presents in graphic form the increases in census, enrollment and average daily attendance, shows that over the sixteen-year period, although enrollment has kept well up to the census, the average daily attendance, which is the real measure of the school's efficiency, has continually lagged from one hundred to two hundred behind the census. In other words from 1909 to 1923 there has been an increasingly larger number of children out of school. There has been a marked improvement during the last year.

ATTENDANCE AND THE LAW

Unfortunately in Colorado the state department does not materially encourage local communities in enforcing school attendance. Although the law (Article XI Section 253, Colorado School Law 1923) specifically states that all children between the ages of eight and fourteen must attend school during the entire school year during which public schools are in session, parents are openly violating this section of the law. The law is in many instances made ineffective by the local interpretation of the "Five day notice" provision. The superintendent is authorized to excuse children over fourteen years of age to work for their parents' support. The issuance of the great number of permits in district number eight is in violation of the intent of the law. The compulsory attendance law is not taken seriously in Fort Lupton, as it should be.

Under these conditions the matter of exerting effort to secure good attendance is a test of the seriousness with which responsibilities of educational leadership rest upon school authorities. The per cent that enrollment is to the census and that average daily attendance is to the enrollment is a good measure of the efficiency of the school system and at the same time indicates the breadth of vision of the communities' educational leaders. In most of the

cases of absence the law does not give school authorities sufficient power to enforce attendance nor are parents who are keeping their children out of school to work in the beet fields ready to surrender their prerogative.

No. Children

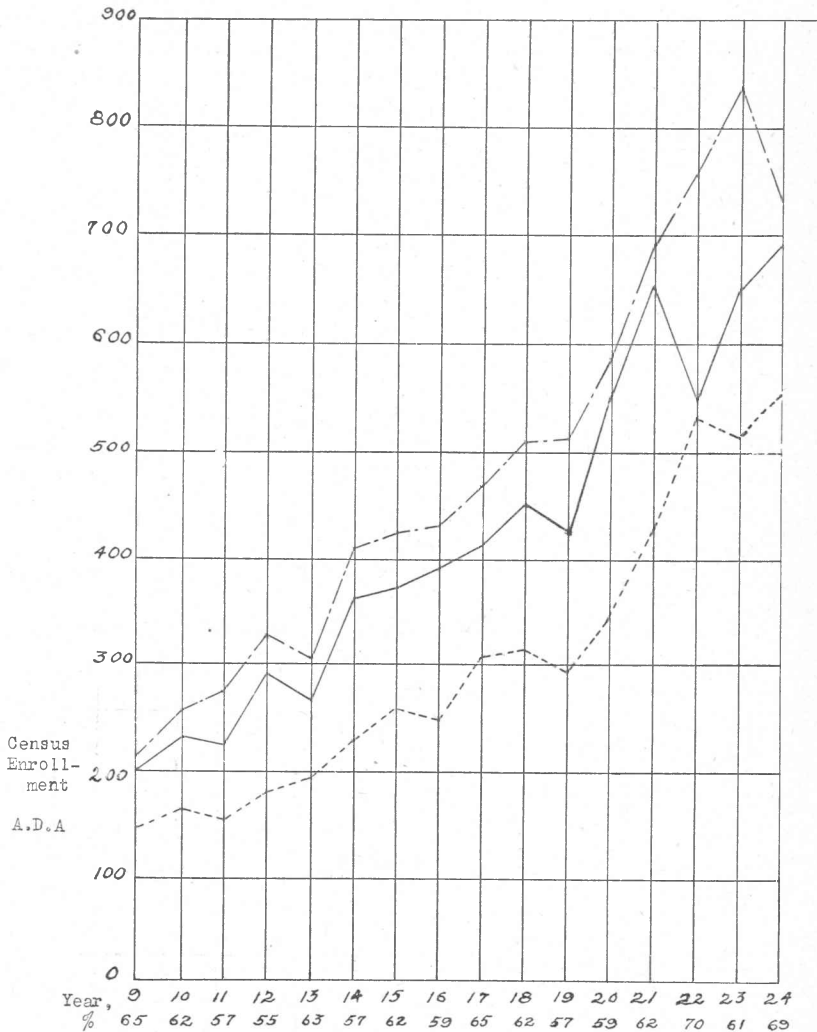


Fig. 3. THE RELATIONSHIP BETWEEN CENSUS, ENROLLMENT AND AVERAGE DAILY ATTENDANCE FROM 1909 TO 1924, FORT LUPTON, COLORADO.

THE ATTENDANCE OFFICER

Without a firm public sentiment supporting the compulsory educational laws the position of attendance officer becomes an ex-

tremely difficult one. His task is one of persuasion and attempts to impress the value and importance of education upon parents whose full responsibilities toward their children have not yet been completely comprehended. With these as the major duties of the attendance officer the town marshal is hardly the man for the job. A town marshal is a political appointee whose qualifications for the position of town marshal are hardly the same that would qualify him as an educational ambassador. The fact that at the opening of the present term there were but 499 pupils enrolled, and that it took six weeks to increase the enrollment to 558 and several more months to raise the enrollment to 589, should convince Fort Lupton beyond a doubt that something needs to be done. This gradual dribbling in of the school's enrollment is a tremendous educational and economic waste.

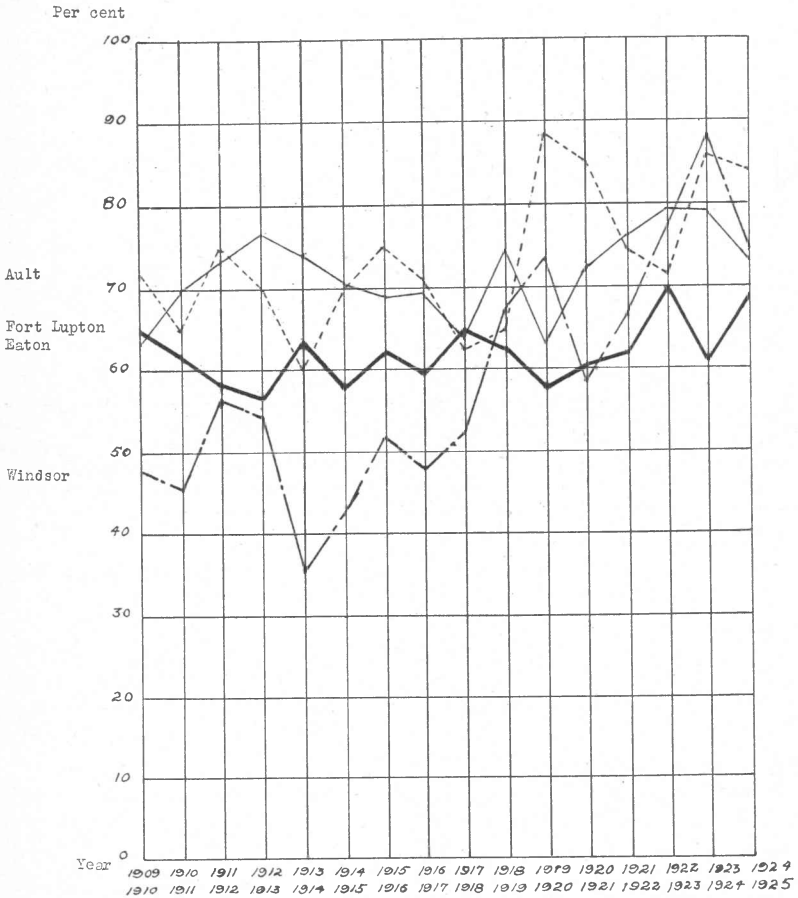


Fig. 4. THE PER CENT AVERAGE DAILY ATTENDANCE HAS BEEN OF THE CENSUS FOR A PERIOD OF 16 YEARS IN 4 CITIES INCLUDING FORT LUPTON.

COMPARISON WITH SIMILAR CITIES

The unsatisfactory situation regarding attendance as found in the Fort Lupton district lead the survey investigators to secure comparable data from other neighboring cities in order to ascertain Fort Lupton's relative status. Census enrollment and average daily attendance figures were obtained from county superintendents' offices for three of Fort Lupton's closest neighbors.

Figure 4 reveals the fact that although Fort Lupton in 1909 was well on a par with the other cities, in the per cent average daily attendance was of the census, in every case by 1921 the other cities have secured a better average than has Fort Lupton. Without exception they have all been able to maintain the more advantageous position.

RECOMMENDATIONS BASED UPON FINDINGS OF THE SURVEY FOR INCLUSION AS ELEMENTS IN AN EDUCATIONAL PROGRAM

III. CENSUS, ENROLLMENT AND ATTENDANCE

Findings No. 1.

Information secured at the time of the census enumeration is incomplete. The census disregards children under six. The census records are not continuing.

Recommended Program No. 1.

For success in educational planning children from one day to twenty-one years old should be counted. Data secured by the enumeration should be transferred to census record cards and the records should be continuing.

Findings No. 2.

Since 1909 increase in enrollment has kept pace fairly well with increase in the census, but the increase in daily attendance has lagged farther and farther behind the increase in enrollment. The fact that an appreciable percentage of all children of school age were out of school last year is a serious matter since a relatively small percentage of these have completed the eight lower grades. In regard to attendance, Fort Lupton is not doing as well as her neighboring cities.

Recommended Program No. 2.

More emphasis must be placed on problems of attendance. Fort Lupton may do at least as well as her neighboring cities.

Findings No. 3.

Standards pertaining to school attendance are so low in the Fort Lupton district that the compulsory education law is of little effect. The full responsibility rests upon local authorities who are lax in enforcing the law.

Recommended Program No. 3.

The attendance officer lacks a strong public sentiment upon which he can rely for enforcing attendance. He succeeds or fails largely on the basis of his ability to impress parents with the value of education and the desirability of regular attendance. An attendance officer must be employed who can by his enthusiasm and broad social outlook induce parents to send their children to school. Under existing conditions this position requires the services of an exceptionally well qualified man. The whole matter of encouraging attendance must be pressed with more vigor by the entire school personnel.

CHAPTER IV

THE CURRICULUM AND SUPERVISION OF INSTRUCTION

A. CURRICULUM*

B. SUPERVISION OF INSTRUCTION

WHY SUPERVISION IS NECESSARY

Although big businesses employ presidents, vice-presidents, general managers, assistant managers, directors of sections, the layman is repeatedly asking why do the schools need supervisors of instruction. They say teachers are supposed to know how to teach. A few of the reasons why supervisors are a necessary part of the school personnel are here set forth:

- a. Half of the younger teachers employed in the elementary schools by boards of education in Colorado have received their training in preparation for teaching different grades than for which they have been employed.**
- b. Without supervisors to unify and co-ordinate the work, there is endless repetition in upper grades of what has already been accomplished in the lower grades.
- c. Supervisors assist in selection and organization of subject matter in accordance with the needs and abilities of children.
- d. Many ineffective methods of instruction are utilized by even superior teachers. The supervisor measures the effectiveness of the various methods and substitutes the effective for the ineffective.
- e. The instructional results of the entire school are measured by supervisors.
- f. Capable as well as mediocre teachers are encouraged to improve themselves in their work.
- g. Supervision helps eliminate poor teachers.
- h. New devices and methods are introduced to members of the teaching staff.
- i. Supervisors insure the establishment of proper aims and checks up to see that different subjects that are supposed to yield different results in the lives of the children do not all yield the same narrow results.
- j. Beginning teachers are assisted in order to prevent absolute failures.
- k. Supervisors do much to equalize the amount of effort necessary to earn a given grade in the various subjects. This does much toward establishing justice in the grading and promotion system and tends to prevent the formation of habits of laziness.
- l. Supervisors render important service in the classification of children which does much to prevent failures.
- m. The tremendous turnover in the Fort Lupton teaching personnel, which means that half of the teachers are new to Fort Lupton each year, makes supervisors doubly necessary.

The above results are accomplished through class visitations, requiring reports on work accomplished, giving demonstration les-

*Discussion omitted in printed report.

** Patterson, Dale—"The Relation between the Training Received and Positions Held by the 2-Year Graduates of Colorado State Teachers College, 1923-4." A. M. Thesis, CTC, 1925.

sons, administering and interpreting ability and achievement tests, directing observations of teachers, holding individual and group conferences, rating of teachers, obtaining a maximum of use from available supplementary material, assisting in formulating courses of study, assisting teachers in keeping in touch with new methods and materials developed in their subjects and through assistance in the revision of the curriculum.

Thus it is seen that supervision is not inspection. It is a most effective means in the improvement of the teaching process. The good supervisor studies teaching problems as the lawyer studies a case, or a doctor his patient. Her work is meritorious to the extent that she succeeds in helping teachers to succeed in their all important work of developing boys and girls.

SUBJECTIVE EVALUATION OF THE TEACHING PROCESS

In another chapter in this report the achievements of the children in various grades is discussed. Although the achievements of the pupils is in many ways a satisfactory means of evaluating the efficiency of the teachers, such method does not, however, take into consideration many significant teaching qualities. Each teacher was observed by competent members of the survey staff at least twice. By the application of the following subjective standards, the quality of instruction was evaluated:

Standard No. 1.

The curriculum as adopted to the school room will be good to the degree in which it contains problems, mental, aesthetic, economic, etc., that are socially vital and yet within the appreciation of the pupils.

Standard No. 2.

In the classroom child activity should predominate.

Standard No. 3.

The relation of parts of the subject matter under consideration should be brought out by the teachers' questions.

Standard No. 4.

Classroom management should be economical of the teachers' and pupils' time.

Standard No. 5.

The teacher should be neat and becomingly dressed and his entire personality should be such that it will tend toward positive moral development of his pupils.

Standard No. 6.

A happy contented and busy atmosphere should characterize the schoolroom.

Each teacher, after two or more observations, was given a positive or negative mark on each of the six standards set forth above.

As might have been expected it was found that the rating varied all the way from "all positive" marks for some teachers, to "all negative" marks for others. These ratings have been given to the superintendent of schools. Too much importance should not be attached to these ratings. The observations were too few and of too brief duration. The standards are defensible but not absolute. A competent supervisor after a few weeks in the system might be justified in reversing many of the evaluations made.

A significant fact to be noted in the ratings is that in many instances negative marks were given where under more adequate supervision the marks might very well have been positive.

The solution to the supervisory problem probably lies in the employment of a high school principal or an elementary principal, or it may be solved by employing a head teacher for the elementary school and securing the services of critic teachers from either the University of Colorado or Colorado State Teachers College at Greeley.

GRADING AND PROMOTION SYSTEMS

The grading system has been somewhat reorganized and improvements have been made. The three point system now in use should be replaced by a five point system. An analysis of the grades given during the last two years reveals the fact that, although much improvement has been made during the last two years over the previous years, one teacher still consistently gives 25% of her grades "A", while another teacher consistently gives 4% of her grades "A". The teachers uniformly give too many "B"s. Due to the system in vogue, the median per cent of "B"s given by all the teachers is 71.

Regular promotions occur only once a year. This is an old system that has been abandoned by a very large majority of all school systems in the United States. Semi-annual promotions are much better, making it possible for one-half entering first graders to enter one-half year earlier.

The greatest disadvantage of the annual promotions scheme is that it materially increases the cost of failures. This is extremely expensive from the standpoint of both time and money. Annual promotions make it impracticable to admit mid-year classes.

All the supervision that is done is accomplished by the superintendent and a single special teaching supervisor who confines his efforts to music and art. High school and elementary school principals who are largely supervisory officers are not included in the Fort Lupton personnel. About all that the superintendent has been able to do in an instructional supervisory capacity has been to indicate the scope of the work to be covered. There can scarcely be given any time to checking up to insure that the work has been covered. A good notion of the amount of time that can be given by the superintendent was obtained through a set of questions submitted to the teachers. It was found that although visits to teachers' classrooms were made by the superintendent, they were of such brief duration (variously estimated from two to twenty minutes) that most effective classroom supervision was impossible.

Each teacher is supplied with a manual of directions, general teachers' meetings are held and some suggestive bulletins are issued. Thus it can be seen that all possible, under the present organization, is being done. However, supervision as it should be practiced in the Fort Lupton schools is impossible with the present insufficient amount of supervisory assistance.

RECOMMENDATIONS BASED UPON THE FINDINGS OF THE SURVEY
WHICH CONSTITUTE ELEMENTS FOR INCLUSION IN AN
EDUCATIONAL PROGRAM

Findings No. 1. IV.-A.—CURRICULUM*

A thorough study of the curriculum was not undertaken as a part of the survey. A preliminary and incomplete examination of the occupations of Fort Lupton high school graduates, needs of present high school students, shows that different emphases might well be given to the curricula. The distribution of time in the school day might be better balanced.

Recommended Program No. 1.

Subjects should be included in the curriculum that give a preliminary preparation for commercial pursuits. Agriculture might well be introduced. A greater percentage of the school day should be devoted to training in physical well-being.

Findings No. 2.

Preliminary investigations of curricular problems show that in Fort Lupton as in the majority of schools, courses of study have not been revised to keep pace with the revolutionary, economic and social changes of the last two or three decades.

Recommended Program No. 2.

Perhaps within the next school year Fort Lupton should lighten the teaching load of certain competent teachers, employ expert advice from neighboring institutions of higher learning and should then plan and execute a real curriculum revision. Early in this endeavor Fort Lupton should arrange through existing agencies full co-operation with other school systems now attempting to solve similar problems.

IV.-B.—SUPERVISION OF INSTRUCTION

Findings No. 1.

Supervision of instruction is considered indispensable by superintendents and board members in fifteen cities the size of Fort Lupton. Fort Lupton has practically no classroom supervision except in music and art.

Recommended Program No. 1.

The superintendent should not be expected to perform all the duties for which he is at present held responsible. The supervision of instruction constitutes sufficient additional duties that more help should be secured as is the case in most school systems.

Findings No. 2.

There are irregularities in the grading system. A three-point system is used.

Recommended Program No. 2.

Who ever is employed to do the supervision of instruction should make it one of his duties to more nearly standardize practices having to do with grading. In Fort Lupton a five-point system should be adopted.

Findings No. 3.

Promotions occur but once a year. This is wasteful both of children's time, and of money. It over-penalizes the failures and there are no mid-year beginning classes.

Recommended Program No. 3.

Promotions should be made at least semi-annually and more special promotions should be made whenever justified. A beginning first grade class should be started at the beginning of the second semester.

Findings No. 4.

Subjective evaluations of the quality of the teaching process reveals the necessity for more classroom supervision.

Recommended Program No. 4.

Fort Lupton should employ a principal or else elect a specially competent elementary teacher to the position of head teacher of the elementary grades and in addition secure the full or part time services of a supervisor from one of the near by state schools of education.

* The discussion and tables presenting the findings are omitted in the printed form.

CHAPTER V

CLASSIFICATION, ABILITIES AND ACHIEVEMENTS OF
FORT LUPTON CHILDREN

CLASSIFICATION

There are two widely used methods of determining the efficiency and degree of standardized classification of children in school systems. One is the construction of an "age-grade" table which shows to what extent children are at the commonly accepted ages for the school grades in which they are found. The other means of ascertaining the efficiency of the school's classification and administration is the construction for the entire school of a "grade-progress" table, which shows to what extent pupils are making regular progress through the grades.

AGE AND GRADE

The birthdays of the children in all the grades were ascertained then by using the Baltimore Age Calculator; the ages of the children were determined as of September first, 1924. A table which gives the distribution of the children in each grade by ages as of September first was constructed and turned over to the superintendent of schools. From this table Figure 5 was constructed.

Figure 5 clearly shows that there is in most grades a minimum of underageness and that in grades 3 through 10 there is altogether too much overageness. A careful study of the table from which this figure was made will reveal to the school authorities in Fort Lupton where immediate reclassifications affecting individual pupils should be undertaken. A too rapid change toward a more desirable classification should not be attempted. Much of the improvement in this respect will come only as a result of a thorough curriculum revision recommended in Chapter IV of this Report.

GRADE AND PROGRESS

The complete promotion history of as many of the children as possible in each grade was secured from school records and inquiries in pupils' homes. For each pupil the survey staff learned how many times he had been regularly promoted, how many times he had failed and how often the child in question had received a double promotion. Tables giving the distribution of children according to their progress through the grades have been turned over to the school authorities. Figure 6 gives a broad view of the situation for the entire school system.

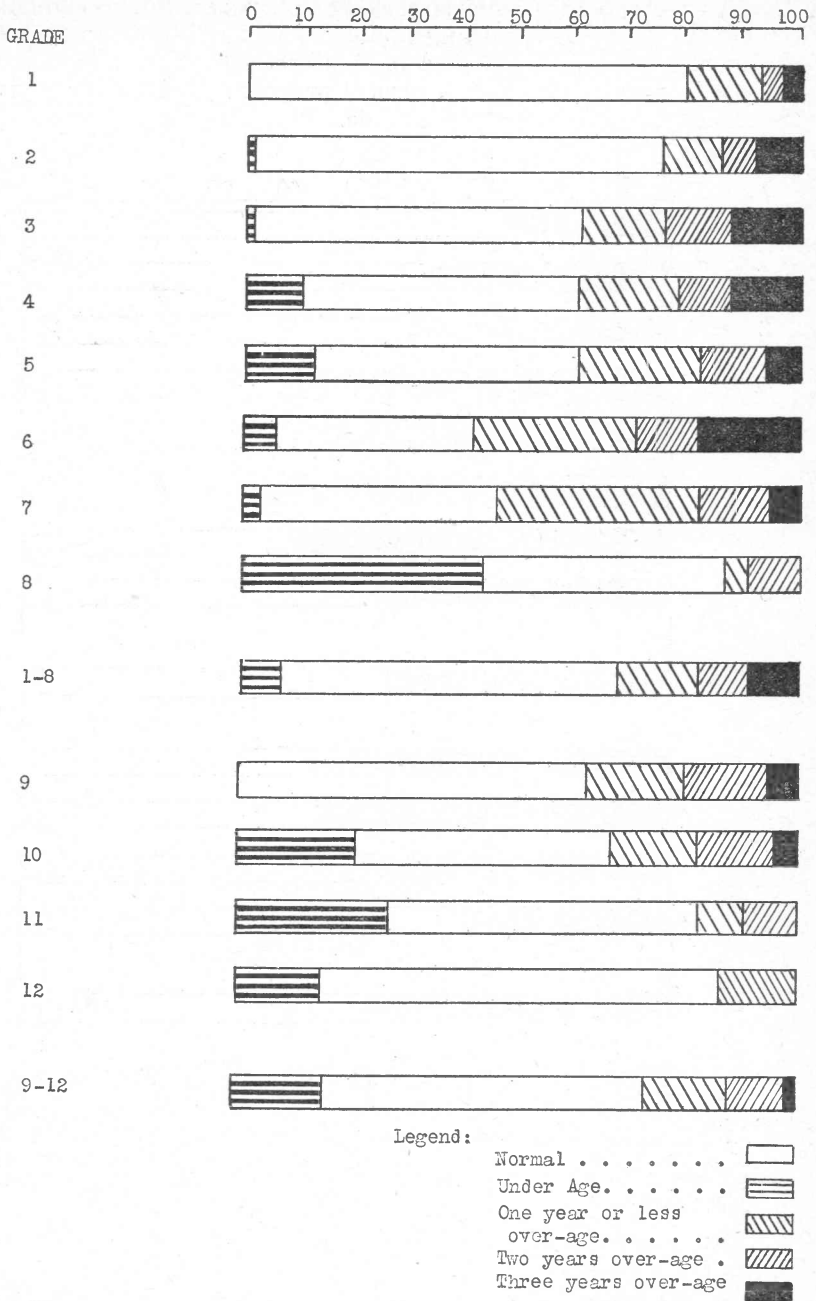


Fig. 5. THE PER CENT UNDER-AGE, NORMAL AND 1, 2, OR 3 OR MORE YEARS OVER-AGE FOR 589 CHILDREN IN THE FORT LUPTON SCHOOLS—AGES AS OF SEPTEMBER 1, 1924.

The percentage of children making slow progress is in marked contrast to the per cent making rapid progress. These percentages should more nearly balance and in no school should there be three times as many making slow as normal progress. This, however, is the case in the Fort Lupton 6th grade.

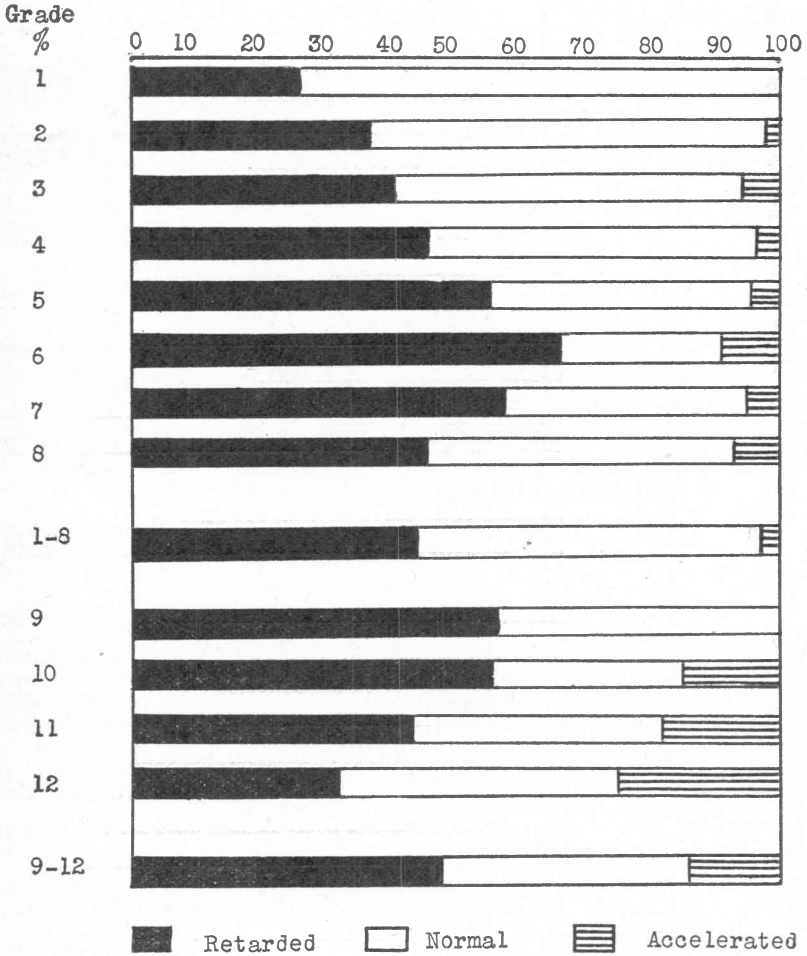


Fig. 6. GRADE PROGRESS. THE PER CENT OF SLOW, NORMAL AND RAPID PROGRESS IN THE VARIOUS GRADES OF ELEMENTARY AND HIGH SCHOOLS, AND FOR THE ENTIRE ELEMENTARY AND HIGH SCHOOL, FORT LUPTON, COLORADO, 1924-1925.

Usually causes of irregular progress are: differences in mentality, early or late entrances into school, irregular attendance, ill health, and maladjustment of the school to the children's needs. Teachers say in regard to 165 pupils who have made slow progress that 112 or 68% are unable to do the work assigned, 8 or 4.6% have too great language difficulties, 30 or 18.1% have made

slow progress because of absence due to illness, 9 or 5.5% due to moving in and out of different school districts, and 16 or 9.7% due to absence because of being kept out of school to work.

It was found that of approximately 500 children now in the first eight grades 227 repeated a grade once, 16 repeated the same grade twice and one repeated grades 4 times. From the financial standpoint this is the same as saying that these repeaters have cost the district the equivalent of the expenses incurred in sending 263 additional children to school for an entire year. This constitutes an argument in favor of semi-annual instead of annual promotions. Curriculum revision is the most fundamentally important "next step" looking toward the elimination of unwarranted retardation.

ABILITIES AND ACHIEVEMENT

THE MEASUREMENT PROGRAM IN FORT LUPTON

Educational science has within the last few years developed instruments by which the ability possessed by pupils to do school work can be fairly well ascertained. In addition there have been developed means of measuring the actual achievement of individual children in reading, writing, arithmetic, geography and other subjects of the school curriculum.

A table reproducing Form F-5 shows what instruments were used in making the measurements involved in "Step One" of the measurement program in Fort Lupton.*

The results of these tests show how much Fort Lupton children are able to achieve and how much they are actually achieving in the various school subjects. In addition, the results of these measurements give school authorities a means of comparing the efficiency of the instruction in the Fort Lupton schools with the efficiency of instruction in other school systems.

In so far as these school tests are diagnostic, they give the classroom teachers a knowledge of the specific difficulties that are being met by individual children in their classes.

In order that the greatest good might accrue to Fort Lupton as a result of these tests an expert in tests and measurements met with Fort Lupton teachers and gave them specific directions in the utilization of the results of the tests given.

A record on a 5 x 8 card was made by all the teachers for each of the pupils in their classes.

This record shows the individual child's ability to do school work, his percentile rank, i. e., how his achievements compare with that of other pupils in his class, and finally the relation between what he is able to do in each subject and what he is actually doing in that subject. The cards are in the possession of classroom teachers who can make daily references thereto.

* Omitted in this printed report.

TABLE IV
CHRONOLOGICAL AND MENTAL AGES AND I. Q.'S OF FORT LUPTON PUPILS—1924-25

1 Grade	2 No. Pupils	3 Average C. A.	4 Median M. A.	5 Norm M. A.	6 Md.-Norm M. A.	7 Extreme Range M. A.	8 Interquartile Range M. A.	9 Med- ian I. Q.	10 Extreme Range I. Q.	11 Inter- quartile Range I. Q.
12	27	17 yr. 7 mo.	16 yr. 10.5 mo.	16 yr. 6 mo.	4.5 mo.	13 yr. 3 mo.-18 yr. 6 mo.	1 yr. 4.7 mo.	100	78-103	96.7- 99.5
11	30	16 yr. 10 mo.	15 yr. 3 mo.	16 yr. 1 mo.	-10 mo.	11 yr. 11 mo.-18 yr. 4 mo.	2 yr. 1 mo.	93.5	70-122	89.2-100.2
10	26	16 yr. 2 mo.	15 yr.	15 yr. 4 mo.	- 4 mo.	12 yr. 10 mo.-16 yr. 11 mo.	2 yr.	95.3	76-114	86.3-101
9	30	15 yr. 6 mo.	14 yr. 1 mo.	14 yr. 6 mo.	- 5 mo.	10 yr. 10 mo.-18 yr. 9 mo.	2 yr. 2.3 mo.	93.3	64-117	83 - 99.7
8	37	14 yr. 4 mo.	13 yr. 7 mo.	13 yr. 10 mo.	- 3 mo.	12 yr. 5 mo.-16 yr. 6 mo.	1 yr. 8.3 mo.	96.7	73-122	87.5-102.7
7	33	13 yr. 2 mo.	12 yr. 11 mo.	12 yr. 10 mo.	1 mo.	12 yr. 2 mo.-16 yr. 3 mo.	1 yr.	100.3	75-122	96.2-106.7
6	42	12 yr. 1 mo.	12 yr. 2 mo.	12 yr. 2 mo.	0	9 yr. 11 mo.-15 yr.	1 yr. 1.6 mo.	101.3	73-129	89 -111.5
5	42	11 yr. 3 mo.	11 yr. 2 mo.	11 yr. 1 mo.	1 mo.	8 yr. 11 mo.-14 yr. 6 mo.	1 yr. 5.8 mo.	101.3	69-139	89.2-113.1
4	52	10 yr. 4 mo.	9 yr. 9 mo.	9 yr. 10 mo.	- 1 mo.	7 yr. 8 mo.-12 yr. 7 mo.	2 yr. 1 mo.	92.8	66-123	82.4-104
3	60	8 yr. 10 mo.	8 yr. 8 mo.	8 yr. 3 mo.	5 mo.	5 yr.-14 yr.	2 yr. 7.3 mo.	100	49-171	80.6-112.5
2	43	7 yr. 10 mo.	6 yr. 9 mo.	6 yr. 8 mo.	1 mo.	5 yr. 1 mo.- 9 yr. 4 mo.	1 yr. 5 mo.	104.2	62-135	88.3-110
1	55	6 yr. 8 mo.	5 yr. 9.5 mo.	5 yr. 9 mo.	0.5 mo.	4 yr. 9 mo.- 6 yr. 9 mo.	1 yr. 2 mo.	82.8	45-110	75.7- 92.1

To realize the greatest possible good from "Step One" of the measurement program a careful study of data presented in the following sections of this report should be made by all Fort Lupton teachers. In addition "Steps Two, and Three, and Four" should eventually be taken to complete the measurement program. "Step Two" should involve the giving of diagnostic tests in those subjects where Fort Lupton children are farthest behind the normal achievement. "Step Three" should involve the utilization of many practice tests, standard and otherwise. "Step Four" should be in the form of a re-survey similar to "Step One." This final "Step" determines the degree of improvement.

ABILITY TO DO SCHOOL WORK*

Since the first essential for the satisfactory accomplishment of school work is native capacity, mental tests were given to determine what should be expected of Fort Lupton children. The Haggerty Intelligence Examination, Delta I, was used for grades one to three; the National Intelligence Tests, Scale A-Form 1, for grades 4 to 6; and the Terman Group Tests of Mental Ability, Form A, for grades 7 to 12.

The results of these tests are expressed in terms of mental age and intelligence quotients. A child's mental age equals the chronological age of the average child who has equal ability to do school work. For example, a child with a mental age of 12 years has the mental capacity of the average 12-year-old child; a child 10 years

TABLE V
NUMBER OF MONTHS CHILDREN FALL BELOW THE MENTAL AGE NORM

Grades	4	5	6	7	8	9	10	11	12	Av.
Average number months, *Weld County	6.11	7.96	9.27	22	15.78	9.49	12.43	12.22	7.81	11.45
Average number months, Fort Lupton	1	1**	0	1**	3	5	4	10	4.5	2.8

* Schools included in testing program reported in Research Bulletin No. 7.
** Above normal.

old whose capacity to do school work is equal to the average 8-year-old child has a mental age of 8 years.

The median mental ages of grades 3 and 12 are considerably above standard. This should mean that these grades have ability to do better than average work. Grades 8 and 11 are below the norm, grade 11 being almost a year below. Columns 4, 5, and 6 of Table IX show the Fort Lupton medians, the norms and the number of months the grade medians are above or below the norms for mental age.

In Colorado State Teachers College Bulletin, Series XXIII No. 7, the statement is made that in December, 1922, in the first

* This section of the report was prepared by Miss Jean Robinson under the direction of Dr. J. D. Heilman of the Department of Psychology, Colorado State Teachers College, Greeley, Colo.

three grades of the high schools of Weld county included in that testing program, only one individual grade out of a total of thirty had reached the norm for mental age. Table V shows the number of months the children in each grade from 4-12 fall below the mental age norm for their respective grades.

The Fort Lupton school shows much higher mental age medians than were found in the schools of Weld County, but column 7 of Table IV reveals that the average difference between the highest and the lowest mental age in one grade averages for all the grades approximately five years, which is the average for the Weld County schools. This means that the classification of the school children is so poor as to make it possible to find in almost any grade from the fourth to the twelfth, children who differ in learning ability as much as the average third grade child differs from the average eighth grade child.

If one fourth of the children having the mental age and one fourth of the children having the highest are excluded, column eight of Table IV shows the difference between the highest and the lowest mental age of the remaining middle fifty per cent of the children. The corresponding average inter-quartile range for the Weld County schools was 19.37 months, which is less than that of eleventh, tenth, ninth, eighth, fourth, and third grades in Fort Lupton.

The intelligence quotient (I. Q.) is the result obtained by dividing the mental age by the chronological age. It is expressed as a per cent without the symbol (%) or the decimal point. The normal child has an I. Q. of 100. An I. Q. above 100 means rapid mental development, or more than average mental capacity.

The average chronological ages of the Fort Lupton pupils vary little from the grade standards. The median I. Q.'s of grades 8-11 are low. The extreme range of I. Q.'s (Column 10, Table IV) show too great a variation of ability. It is rather a widely accepted opinion that children with I. Q.'s below 100 profit but little from the study of such subjects as Latin and Algebra. It has been found that in the first year of high school 70 per cent of those with I. Q.'s of 95 or less fail in more than half their studies. In only two grades, 7 and 12, is the I. Q. of the lower fourth of the class above 90. It is questionable whether the lower fourth of the pupils in grades 9 to 11 should be allowed to follow the traditional high school course of study.

The upper quarter of grades 2, 3, 5, and 6 show superiority if the test results are reliable. Some of the lowest scores in grades one and two may be due to language difficulties. The scores on the Haggerty Test range from below to above the limits for which mental age equivalents are given. The table was therefore extended both upward and downward, giving approximate results probably less reliable than those given by the author of the test. The reliability of these extreme scores is doubtful. The records of some of the chronological ages show discrepancies which make it impossible to compute the I. Q.'s with accuracy.



ILLUSTRATION 3

The dark effect in the bowl is not a shadow, but the long accumulation of dirt and soot. Note the improper installation of the drinking fountain, necessitating the improvised platform. The fountain is at the entrance to the first and second grade rooms.

According to eminent psychologists, in the average case an I. Q. of 75 is considered about the minimum essential for appreciable achievement in school work. The average case (of 75 I. Q.) can scarcely succeed beyond the fifth grade. It would seem wise to use the Binet-Simon individual test for all children whose group I. Q.'s are below 75, and to provide for those whose low rating proved accurate a special room with a teacher especially fitted for work with children of less than average mentality.

SOME REASONS FOR MAKING SPECIAL PROVISION FOR RETARDED CHILDREN

I. Benefits to normal children.

Normal children will progress more rapidly if retarded children are removed from regular classes, for the following reasons:

1. Retarded children require more of the teacher's time and attention, making neglect of normal children necessary.
2. While waiting for retarded children to get a point, the normal children may lose interest and become irritated, bored, or disorderly.
3. Children are not stimulated to work at their full power unless the requirements call for their best efforts to keep pace with their equals.
4. The class morale is better if all have equal chances for success.

II. Benefits to retarded children.

1. They escape the inevitable failure that must result from competition with more fortunate children. The "habit" of failure is no longer taught.
2. They may be given the kind of work in which success is possible.
3. They may receive more individual help and encouragement from the teacher.
4. They are not neglected or treated as nuisances.
5. They are happier in school, unless prejudiced by others.
6. Their conduct improves.
7. They make more progress, many (who without special help would be permanently retarded) being restored to regular grades.

(In Los Angeles adjustment rooms 200 children averaged five times as much progress as regular children in regular grades. On the average, they stayed thirteen weeks in the adjustment rooms.)

III. Benefits to regular teachers.

1. Less time may be spent in discipline, more in real teaching.
2. The chief sources of discouragement and nervous tension are removed.
3. Teachers are stimulated by the more apparent results of their efforts.

IV. Benefits to taxpayers.

The cost of repeating a term's work is equal to the cost of schooling another child.

1. Normal children are less likely to be held back to repeat this work.
2. Retarded children may be given the work they can do instead of repeating again and again the regular work in which they fail.

3. Many retarded children can be restored to regular grades, able to go on with the class.

(Of 3111 St. Louis children in ungraded classes in 1916-17, 42% were restored to regular grades and 80% made greater progress than before. Of the remaining 20%, some were mentally deficient, others had been in these classes only a short time when the report was made.)

4. Classes of normal children may be somewhat larger.
5. The educational needs of all children may be better met, thus making them more useful citizens.

The large number of children with serious language difficulties of themselves make the establishment of a special class imperative.

THE ACHIEVEMENT OF THE CHILDREN

The general achievement of the pupils was measured by the Stanford Achievement Test, Primary examination, Form A, for grades two and three; and Advanced Examination, Form A, for grades 4-8. The results are given as educational ages and accomplishment ratios.

An educational age of twelve years means that the pupil's achievement in school work is equal to that of twelve-year-old children in general. The median education age of the Fort Lupton children is from two to seven months below standard, the average for grades two to eight being four months below (Columns 3 and 4, Table VI). In each grade from three to eight there may be found children whose achievement varies from three to six years (Column 5, Table VI), while the range of educational ages of the middle 50 per cent of the children is from nine months to one year nine months (Column 6). A pupil having an educational age ten or twelve months above the average for his grade should be promoted to the next grade.

Table VI gives the distribution of educational ages for grades 2-8 with medians, quartiles, and norms indicated. It may be seen that one eighth-grade pupil falls below the first quarter of the sixth grade, two seventh-grade pupils are above the third quartile of the eighth grade, two seventh-grade pupils are below the first quartile of the sixth grade, and so on.

Table VII shows that most of the Fort Lupton pupils have been achieving about as much as should be expected, though grade placements somewhat affect the accomplishment ratio. The medians in column 7, Table VI, are all above 100 except two (which are above 99), though column 8 shows that there are some children who are not working to capacity. According to column 9, fewer than the lower fourth in most grades are doing less than should be expected.

A comparison of intelligence quotients and accomplishment ratios shows that the duller children are accomplishing much more in proportion to their capacity than are the bright children. For the fourteen children (grades 2-6) whose I. Q.'s are below 75, and the three children (grades 7 and 8) with I. Q.'s below 78, the average A. R. is 114.7, with only two pupils whose A. R. is below 102.*

* Tables have been prepared which give all the important educational data available for each pupil with either exceptionally low or exceptionally high ability rankings. These have been turned over to the proper school authorities.

TABLE VI
ACHIEVEMENT OF FT. LUPTON PUPILS AS SHOWN BY THE STANFORD ACHIEVEMENT TEST—1924-25

1 Grade	2 No. Pupils	3 Median E. A.*	4 Standard E. A.	5 Range E. A.	6 Quartiles E. A.	7 Median A. R.†	8 Range A. R.	9 Quartiles A. R.
8	31	14 yr. 3.5 mo.	14 yr. 9 mo.	11 yr. 11 mo. to 16 yr. 7 mo.	15 yr. 2 mo. 13 yr. 8 mo.	105.75	97-110	108.45 101.69
7	29	13 yr. 1 mo.	13 yr. 8 mo.	4 yr. 8 mo. 10 yr. 5 mo. to 16 yr. 6 mo.	1 yr. 4 mo. 13 yr. 11 mo. 12 yr. 4 mo.	101.83	91-113	106.25 97.12
6	29	12 yr. 2.5 mo.	12 yr. 7 mo.	6 yr. 1 mo. 11 yr. to 14 yr. 3 mo.	1 yr. 7 mo. 12 yr. 9 mo. 12 yr.	99.88	89-108	104.37 95.62
5	35	10 yr. 11.4 mo.	11 yr. 5 mo.	3 yr. 3 mo. 9 yr. 8 mo. to 13 yr. 2 mo.	9 mo. 11 yr. 6 mo. 10 yr. 1 mo.	99.17	87-122	104.5 94.75
4	45	9 yr. 11 mo.	10 yr. 4 mo.	3 yr. 6 mo. 7 yr. 11 mo. to 12 yr.	1 yr. 5 mo. 10 yr. 5 mo. 9 yr. 4 mo.	104.83	89-123	107.94 100.12
3	47	8 yr. 9 mo.	9 yr.	4 yr. 1 mo. 7 yr. to 13 yr. 3 mo.	1 yr. 1 mo. 9 yr. 9 mo. 8 yr.	107.71	57-162	114.46 93.96
2	32	7 yr. 7 mo.	7 yr. 9 mo.	5 yr. 3 mo. Below age- limit to 9 yr. 4 mo.	1 yr. 9 mo. 7 yr. 10 mo. 7 yr. 10 mo.	110.83	86-146	122.19 104.06

* E. A.—Educational Age.

† A. R.—Accomplishment Rates.

In grades 2-8 there are 30 pupils with I. Q.'s above 115. Their average A. R. is 96.13. If those who were measured by the Haggerty Test (with results that seem improbable) are excluded, the remaining 21 pupils have an average A. R. of 97.9. In both groups

TABLE VII
DISTRIBUTION OF ACCOMPLISHMENT RATIOS FORT LUPTON—
1924-25

A. R.*	8th	7th	6th	5th	4th	3rd	2nd
153.....	..	..	..	..	..	1	..
146.....	..	..	..	..	..	1	1
144.....	..	..	..	..	..	1	..
136.....	..	..	..	..	..	1	..
130.....	..	..	..	..	..	1	4
125.....	..	..	..	..	..	2	2
124.....	..	..	..	..	..	1	..
122.....	..	..	..	..	3	..	2
120.....	..	..	..	1	3	..	2
118.....	..	..	..	..	..	1	2
116.....	..	..	..	..	..	1	2
114.....	..	..	..	..	..	3	2
112.....	..	1	..	1	1	2	1
110.....	3	2	..	..	3	3	†1
108.....	7	1	1	..	1	4	5
106.....	5	4	4	3	8	†5	2
104.....	†4	5	3	5	†6	3	2
102.....	3	1	..	2	5	1	1
100.....	5	†5	6	3	4	2	2
98.....	3	1	†4	†6	2	..	..
96.....	1	4	3	4	5	..	..
94.....	..	3	2	2	1	4	1
92.....	..	1	3	1	1	1	2
90.....	..	1	2	6	1	2	1
88.....	..	..	..	..	1	2	1
86.....	..	..	..	1	..	..	1
84.....	..	..	1	..	..	1	..
82.....	..	..	..	..	..	1	..
80.....	..	..	..	..	..	1	..
78.....	..	..	..	..	..	..	..
76.....	..	..	..	..	..	..	..
74.....	..	..	..	..	..	1	..
57.....	..	..	..	..	..	1	..
Number.....	31	29	29	35	45	47	37

* A. R.—Accomplishment Ratios.

† Indicates the intervals within which the median falls.

two-thirds of the individual A. R.'s are below 100. (Accomplishment ratios could not be found for children who were not given the Stanford Achievement Test.)

Unless the removal of the dullest pupils for special room instruction will allow the regular classes to advance much more rapidly, the high I. Q. children with educational ages equal to the median of the next higher grade should be promoted and a coaching teacher provided to help them with subjects in which they need assistance. Both special room and coaching teacher should be provided if the most efficient work is to be done.

ACHIEVEMENT IN READING

Following is a discussion of achievement in the various school subjects. The first subject considered is reading. If a pupil has a reading ability of the average 10-year-old, his reading age is ten years. The median reading age of the children in every grade from 2 to 8 is below the norm.*

While the median reading ratios are satisfactory, the distribution table shows the classification might be improved. For example, five of the 33 children in grade seven are above the eighth grade median, while ten are below the median of the sixth grade. Of the 45 children in the fifth grade, three read better than the average of the seventh grade and nine are poorer readers than the average of the fourth grade child. This variation within a grade is a common problem. In the fifth grade of the Horace Mann School, which is made up of normal children, carefully graded, it was found at the end of the year that the reading ability ranged from fifth grade to ninth grade. The solution is probably frequent re-classification and much individual work in reading that each pupil may be kept working at his own level of ability.

ACHIEVEMENT IN ARITHMETIC†

The median arithmetic ratios, as determined by the Stanford Achievement Test, are all above 100 except that of grade six, which is only one point below. Grade seven has attained the standard arithmetic age and grade three exceeds it by seven months, but all the other grades fall below. The distribution of scores indicates the desirability of re-classification. This test measures both computation and arithmetical reasoning.

The Woody Scales were used to measure ability in the fundamental arithmetical processes. The scores are compared with the average of scores attained in Wisconsin cities, Seattle, Paterson (N. J.), Pittsburgh (Pa.), and other cities from 1915-19. In general Fort Lupton compares favorably with the other cities. In addition, grades five and six, and in subtraction, grades four and eight, are slightly below the average. In multiplication, the seventh grade is the only one that reaches the average, while in division that distinction falls to grade three. Grades seven and three, as was observed, have reached the norm for arithmetic age, according to the Stanford test.

ACHIEVEMENT IN HANDWRITING

The Ayres Scale, Gettysburg edition, was used to measure handwriting. The median of each grade is translated into a B score, in which the whole number indicates the grade and the decimal the month for which the score is the standard. For example, in quality, the B score for grade eight is 8.5, the standard for the fifth month of the eighth grade work. The seventh grade

* Data omitted from printed form of report.

† Tables submitted to Fort Lupton school authorities but omitted from the printed report.

B score 5.5 indicates that the median score is equal to the norm for the fifth month of the fifth grade. The B score for the fourth grade is also 5.5, the only grade that is above standard in quality. With reference to quality, one pupil in eighth grade, five in seventh grade, thirteen in sixth grade, seventeen in fifth grade and six in fourth grade, all making a score lower than the standard for grade two. Grades four and six are very high in speed, while fifth grade is low. In grades four and five there are fifteen pupils who write more slowly than the third-grade standard.

ACHIEVEMENT IN SPELLING

Achievement in spelling was measured by means of the Ayres Scale. The results are listed in Table VIII. The sixth grade reaches the standard.

TABLE VIII
SCORES IN SPELLING, AYRES SCALE
Fort Lupton and Standards, 1924-25

Grades	2	3	4	5	6	7	8
Fort Lupton Medians.	58.75	76	73.5	82.92	91.88	86.5	85
Standards	79	79	84	84	84	*	*

* Records appeared unreliable.

ACHIEVEMENT IN GEOGRAPHY

The results of the test in geography show that the seventh grade has exceeded the norm, but no quarter of any class in the other grades has reached the standard.

ACHIEVEMENT IN HISTORY

In history the test results are rather disappointing. The Gregory tests in American history, Test III, Form A, were used. The median for the 12th grades is 36.5, which is 16.5 below the norm. The median for the 11th grade is 32.25, and this is about 15 points lower than the norm for grade 11. Even the upper quarter of the class in both grades fails to reach the standard for average achievement.

ACHIEVEMENT IN MODERN AND ANCIENT LANGUAGES

Handchin's Modern Language Tests, Silent Reading Test A, Spanish, also yielded low scores. The norm for grade 11 is 17, while the median score for grade 12 is only 11, and that for grade 11 is 3.3. Q_3 is 18 for the 12th grade, and 4.45 for the 11th grade.

In Latin vocabulary, Henmon Latin Tests, Test 1, the 10th grade median is 36.5, which is .5 above the norm. The median for the ninth grade is 19.5. This is more than half the June standard which is 33. No norm is given for a half year's work in the ninth grade.

ACHIEVEMENT IN CHEMISTRY

In the Powers General Chemistry Test, Form A; the median score of the 12th grade is 25.1, while the norm for the half year in chemistry is about 26% as given by the author of the test. The upper quartile score for the Fort Lupton class is 29.3.

ACHIEVEMENT IN ALGEBRA

The distribution of ninth grade scores in the Hotz First Year Algebra Scale, Series A, shows for the addition and subtraction test a rather distinct division of the class into two groups. On the test in equations and formulae, Fort Lupton did much better. However, the medians are below standards in both tests.

ACHIEVEMENT IN ENGLISH COMPOSITION

Scores made by the Fort Lupton pupils, grades 7-12, on the Pressey Diagnostic Tests in English Composition have been compared with figures given in the 1925 Report of the Nation-wide Survey of Pupils' Achievements in English Composition, through the use of these same tests. This survey reports the scores of 131,858 pupils, representing every state except Nevada, Maryland, and Rhode Island. The comparison includes scores made by 570 Colorado pupils who participated in the survey. Figure 7 was constructed from these comparative tables.

Colorado failed to reach the standard of the nation in any test. The Fort Lupton medians are below those of the state except in three instances: in the punctuation test, the Fort Lupton seventh grade scores slightly higher than Colorado; and in sentence structure, the median of grades seven and nine surpass those of the nation. The median scores for the whole nation, for Colorado, and for Fort Lupton are shown graphically in Figure 7.

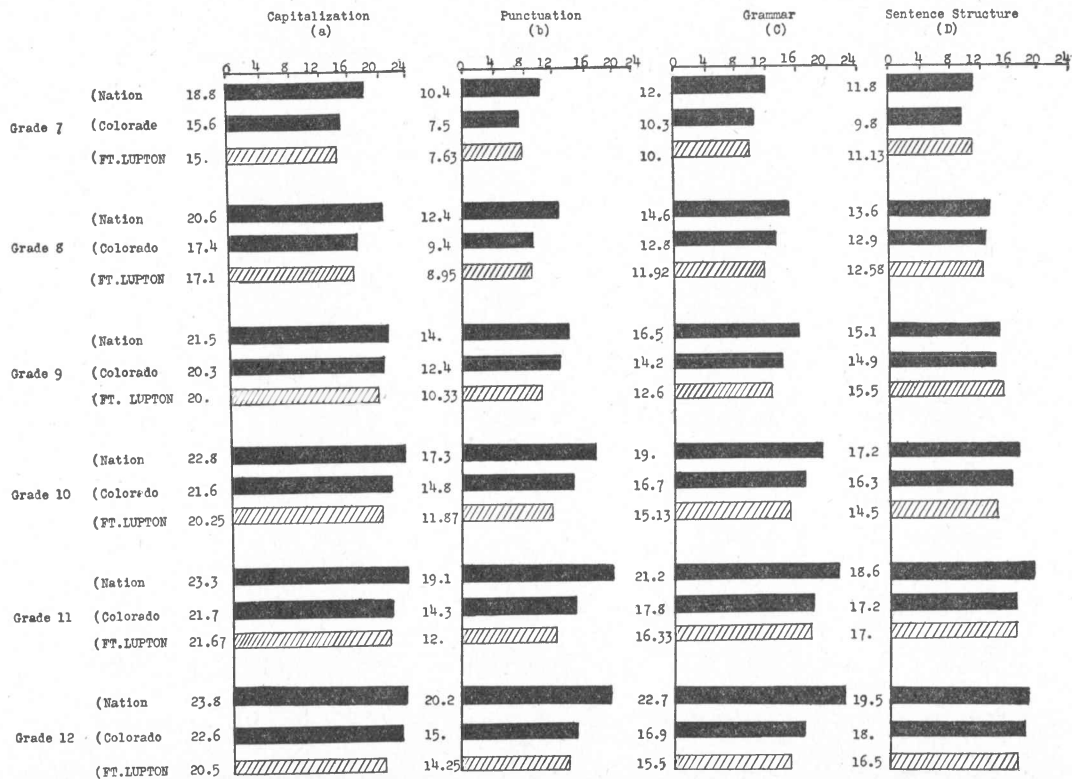


Fig. 7. MEDIAN SCORES ON PRESSEY DIAGNOSTIC TESTS IN ENGLISH COMPOSITION FOR FORT LUPTON, THE STATE OF COLORADO, AND THE UNITED STATES, 1924-25.

RECOMMENDATIONS BASED ON FINDINGS OF THE SURVEY
WHICH CONSTITUTE ELEMENTS FOR INCLUSION
IN AN EDUCATIONAL PROGRAM

V. CLASSIFICATION, ABILITIES AND ACHIEVEMENT

Findings No. 1.

In grades 3 through 10 there is too much over-ageness. For example, in grade 6 there are 4 times as many overage children as normal.

Recommended Program No. 1.

A reclassification of some of the extreme cases should be immediately undertaken where test results justify.

Findings No. 2.

Of the 500 children in the Elementary school 227 failed once in making a grade a year, 16 failed twice, and 1 four times.

Recommended Program No. 2.

Semi-annual promotions should replace the annual promotion system now used. This will reduce by one-half the time lost in overcoming failures. Special promotions and placing of some children into a special class would eliminate much of the retardation in the future.

Findings No. 3.

In sheer ability expressed in mental ages Fort Lupton children are from 10 months below the normal in grade 11 to 5 months above normal in grade 3, i. e., Fort Lupton's children have about average ability to school work. Fort Lupton mental ages are considerably higher than mental ages of Weld County children.

Recommended Program No. 3.

Fort Lupton has a right to expect that her school children achieve as much as children in an average school, and that they do better work than all the children of Weld county taken together.

Findings No. 4.

Educational age, which is a measure of achievement in school work, was determined by the Stanford Achievement test. The average educational age of Fort Lupton children is from 2 to 7 months below standards for the country. There are wide differences in achievement among children in a given grade. The overlapping of educational ages from grade to grade is tremendous.

Recommended Program No. 4.

An educational age of two years above normal for grade probably justifies a special promotion.

Findings No. 5.

Comparison of intelligence and accomplishment among individual children shows that the duller children are doing more according to their ability than are the bright.

Recommended Program No. 5.

The dull should be removed from regular classes and the exceptionally bright should receive additional coaching. This will make possible better teaching for the large majority of children.

Findings No. 6.

In reading Fort Lupton children are from 2 to 8 months below standard. There is great variation of reading ability with any given grade.

Recommended Program No. 6.

Frequent Reclassification.

Findings No. 7.

In general Fort Lupton compares favorably with the norm and other cities so far as achievement in arithmetic is concerned. Fort Lupton is relatively better in addition and subtraction than multiplication and division.

Recommended Program No. 7.

Further use should be made of standardized practice materials.

Findings No. 8.

Writing—The fourth and eighth grades are strong in both quality and speed. The sixth and seventh grades are correspondingly weak.

Recommended Program No. 8.

More emphasis should be given to writing in grades six and seven.

Findings No. 9.

Spelling—In the lower grades, Fort Lupton is weak in spelling, but the upper grades are considerably above standard.

Recommended Program No. 9.

A little more stress should be placed on spelling in the lower grades.

Findings No. 10.

In Geography, American History, Spanish and Latin, Fort Lupton's levels of achievement are disappointingly low.

Recommended Program No. 10.

Diagnostic tests should be given in these subjects in order to determine specific difficulties.

Findings No. 11.

Algebra—Fort Lupton's ninth graders are much stronger in equations and formulas than in addition and subtraction.

Recommended Program No. 11.

This probably merely reveals emphasis in teaching.

CHAPTER VI*

RECOMMENDATIONS BASED ON FINDINGS OF THE SURVEY WHICH
CONSTITUTE ELEMENTS FOR INCLUSION IN AN
EDUCATIONAL PROGRAM

VI. STUDENT ACTIVITIES

Findings No. 1.

Taking all schools together, elementary, junior high and senior high, there were twenty-one different student activities engaged in by pupils of the Fort Lupton schools during school year 1924-25. This is about the number maintained in small high schools in the State of Washington.

Recommended Program No. 1.

A greater variety of activities should be encouraged in order to multiply the possibilities for participation on the part of a much higher percentage of the school enrollment. The program should take account of children in lower grades as well as those in high school. An honor society is recommended.

Findings No. 2.

Available data show that approximately 50% of all students in Fort Lupton schools do not take a definite part in student activities.

Recommended Program No. 2.

The program should be so planned that approximately 100% of the children participate in some activity.

Findings No. 3.

No school credit is allowed students for participation in student activities.

Recommended Program No. 3.

Credit should be allowed for orchestra and glee club, athletics, work on school paper, and debating.

Findings No. 4.

All Student Activities Accounts are centralized and carefully kept.

Recommended Program No. 4.

Continue the practice.

Findings No. 5.

Problems of administration of student activities are about the same in Fort Lupton as in other schools.

Recommended Program No. 5.

These problems having been discovered should be intelligently studied and solutions seriously attempted.

* Supporting data and discussion omitted in this printed report.

CHAPTER VII

HEALTH EDUCATION

AIMS OF HEALTH EDUCATION

The aims and purposes of health education have within the last five years suffered a complete reversal and drastic changes have been inaugurated. The old aims of physical education were to have the children engage in formal gymnastics and to get children to perspire. To some degree Fort Lupton's practices are in conformity to this old theory. These old purposes, however, have been shown to be inadequate. The new aims are as broad as education and life itself.

Today the whole aim of health education is simply that the program shall aim to provide an opportunity for all the children in school to have a chance to live in situations that are physically wholesome, mentally stimulating, and satisfying to the children, and at the same time socially sound. If Fort Lupton accepts the newer view much of the formal gymnastics now practiced even in the primary grades will be abandoned and games, singing and dancing will take their place.

GYMNASIUM AND PLAYGROUND ACTIVITIES

The outstanding need in the field of gymnasium and playground activities is a more modern point of view in regard to aims which are to be realized. The second great need is instruction and supervision sympathetic to the newer conceptions of what should be accomplished through these activities. The time is past when the majority of first and second grade children should be day after day forced through formal gymnastic exercises. This practice is, however, to some extent the rule in Fort Lupton.

Figure 8 gives in graphic form the program for the first six grades. Even in the high school games and athletics may well comprise practically the entire program for both girls and boys.

More than one half of the 1571 high schools of the North Central Association had, during the present school year, a paid physical director. Twelve per cent of these high schools employed two physical directors, one for boys and one for girls.

If Fort Lupton cannot secure the services of a physical director whose views are in accordance with the broad life aims of physical education, neighboring districts might co-operate with Fort Lupton in employing such an officer.

DEFECTS AND THEIR CORRECTION

According to written statements of parents who write excuses for their children's absences, illness was the cause for 3564 days of absence during the school year 1923-4. Since it costs Fort Lupton approximately 45 cents per day to provide schooling for one child, these absences cost the district 3564 times 45 cents or

	Rhythms	Dramatic games	Singing games	Dances	Games of low organization	Marching	Apparatus	Natural gymnastics
Grade I	|||||	|||||	|||||	|||||	|||||	|||||	as games only	
Grade II	|||||	|||||	|||||	|||||	|||||	|||||	as games only	
Grade III	|||||	|||||	|||||	|||||	|||||	|||||		Natural Exercises and story plays, or the teaching of technique and drill in movements that are the basis of activities which in themselves are satisfying to the children.
Grade IV	|||||	|||||	|||||	|||||	|||||	|||||		
Grade V	|||||	|||||	|||||	Girls	Girls	Girls		
	|||||	|||||	|||||	Boys	Boys	Boys		
Grade VI	|||||	|||||	|||||	Girls	Girls	Girls		
	|||||	|||||	|||||	Boys	Boys	Boys		

Fig. 8. THE ABOVE HORIZONTAL LINING INDICATES THE APPEARANCE AND DISAPPEARANCE OF, AND THE RELATIVE EMPHASIS UPON, THE DIFFERENT ACTIVITIES OF PHYSICAL EDUCATION IN THE FIRST SIX GRADES. (WILLIAMS, J. F., Phy. Ed. p. 47.)

\$1603.80. It is reasonable to believe that a competent school nurse working in co-operation with teachers and attendance officer could eliminate many of these causes for absence and thus save the district money that would go far toward paying the nurse's salary.

A school nurse is employed in 32 per cent of 1571 high schools, members of the North Central Association, and in 50 per cent of cities of the United States the size of Fort Lupton.

If Fort Lupton parents realized the educational loss sustained by many of their children through absences, and the degree to which absences impedes the progress in the classwork of those who do regularly attend, there is not a doubt that the services of a nurse would immediately be secured.

Of the city school systems in the United States the size of Fort Lupton, 50% employ a nurse for full or part time. Under the present system Fort Lupton is wasting through these absences both educational effort and an appreciable amount of money.

An inquiry into the Fort Lupton health situation resulted in the discovery of the records of physical examinations which had been given by Red Cross nurses during the school years 1920-21 and 1922-23. These results were tabulated and presented to the Fort Lupton school authorities.

From this data it was learned that no corrections were effected in 276 or 74 per cent of the 377 cases which were demanding attention. This is the situation in the face of the fact that medical authorities say that at least 90 per cent of such defects as found among Fort Lupton school children are of such a nature that they can be remedied.

This record leaves no question but that more of an effort should be put forth by school authorities to effect the correction of all possible defects. This must be accomplished in co-operation with the parents. It is in this co-operative effort that the services of a competent school nurse are indispensable.

The health program pertaining to corrections of physical defects demands drastic reorganization and financial support if the children of Fort Lupton are not to be denied their rightful heritage. Children in the up-to-date schools in rural as well as urban America are receiving such care. Why not Fort Lupton's children? The correction of defects in youth which avoid complications in adult life is by far the most economical policy to pursue.

Miss Lucille Dascomb, a nurse supported by the Red Cross organization in Weld County, was prevailed upon to give to Fort Lupton a few extra days of her service during the months of January and April, 1925, in order that conditions relative to defects prevalent among the elementary pupils might be determined. The findings are shown in Table IX, which embodies the essentials of her entire report.

It is an appalling fact that among 189 children among children of first three grades examined were found 164 with one or more defects pertaining to nose, throat, teeth, vision, and the like which are recognized as defects that seriously impair mental and

physical development. In grades four to eight slightly better conditions prevail—198 defects out of the 220 children examined. Of this group, among the 37 children who had previously been weighed by the Red Cross nurse, one third were found seven per cent or more under-weight. It must be remembered in this connection that examinations performed by nurses are necessarily limited to certain of the more obvious defects. There are no records of the more thorough physical examinations which doctors can perform ever having been given in Fort Lupton.

IMMUNIZATIONS AGAINST DIPHThERIA AND VACCINATIONS AGAINST SMALLPOX

The expenses for immunizing and vaccinating children in the schools against diphtheria, smallpox, and the like is supposedly born by the city. The reports secured of such immunizations during the last two school years would indicate that this phase of the health program has actually been carried out. This has been done in a commendable manner and should be continued. The health program in the Fort Lupton system should be recognized as strictly a part of the educational system. It is in connection with such immunizations and physical examinations, which should be given annually to all the younger children in the system, that the part time services of a medical doctor should be obtained.

HEALTH INSTRUCTION

Fort Lupton devotes approximately 75 minutes per week to health education or hygiene in grades one to six. This time allotment is exceedingly low when compared to time given to this subject in other cities. The average amount of time given to health instruction is on an average of 167 minutes per week for a group of 49 cities and 126 minutes for another per group of 60 cities. If the time given to physical training is added the two averages for the two groups of cities becomes 719 and 661 minutes per week compared with Fort Lupton's 125 minutes per week. The work in hygiene instruction could be further improved if more modern textbooks were used.

SCHOOL LUNCHES

Problems of providing school lunches are involved in the health educational program as truly as are problems of defects, immunizations, etc. The school cafeteria was established in the spring of 1923 to furnish the pupils with at least one hot dish to supplement the lunches brought from home. Two dishes are prepared by the household arts girls. Each portion is sold at five cents. Soups, creamed dishes, or meats constitute the service. (Chocolate bars are sold as a side line.)

That the school is justified in maintaining this service was amply revealed through the inspection of lunches brought to school by the children of three different rooms. The lunches were found on the whole to be unsatisfactory for school children. Sandwiches

TABLE IX

RED CROSS NURSE'S REPORT OF NUMBER OF DEFECTS AND THE NUMBER AND PER CENT OF CORRECTIONS

Defects	Grades 1 to 3						Grades 4 to 8						Grades 1 to 8					
	Old Cases			New Cases			Old Cases			New Cases			Old Cases			New Cases		
	De- fects	Correc- tions		De- fects	Correc- tions		De- fects	Correc- tions		De- fects	Correc- tions		De- fects	Correc- tions		De- fects	Correc- tions	
		No.	%		No.	%		No.	%		No.	%		No.	%		No.	%
Vision				17	1		37	3	8	23	2		37	3		40	3	7
Eyes				1			2			2			2			3		
Ears				4			3			2			3			6		
Nose	2	2	10	76	20		27	7		35	10		29	9		111	30	27
Throat	2	2	10	101	20		53	6		52	10		54	8		153	30	20
Teeth	1			108	5		82	19		69	6		83	19		177	11	6
Glands				6			1	1					1	1		6		
Skin				2												2		
Underweight (7% or more).....	1	1	100	74			36			27			37			101		
Total.....	6	5	84	389	46	12	241	36	15	210	28	13	246	40	16	599	74	12

Total Number Examined—Grades 1 to 3—189.

Total Number Examined—Grades 4 to 8—220.

Old—Children Examined Once Previous to 1924-25.

New—Children Examined Once 1924-25.

of unbuttered bread were found in most pails. There was an alarming over-supply of sweets, generally in the form of pie and cake.

More children should be urged to patronize the cafeteria. The extent to which the cafeteria was used by elementary and high school pupils is shown by the following tabulation which represents the number and per cent of elementary and high school pupils who utilized the school cafeteria over a period of a month:

Children's Lunches	Grades 1 to 6		Grades 7 to 12		Grades 1 to 12	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
Number bringing lunches	140	77	38	58	178	72
Number eating in Cafeteria	42	23	27	42	69	53
Total	182	100	65	100	247	100

The per cent of the school enrollment that lives out of town was shown to be approximately 30 per cent. Since a large number of children using the cafeteria are city residents, the 23 and 27 per cents of children who use the cafeteria are low. The facilities of the cafeteria should be enlarged and that part of the school's service be undertaken on a bigger scale, that children traveling one or more miles to school may be induced to partake of a satisfactory lunch. If the lunches brought to school by some are an indication of what some of the children receive at home, the school can render no greater service than to provide complete lunches adequate for physical well being, proper growth, and adjustment to the mental demands of life at school.

Improvements in some directions can be made without any additional expenditures by providing adequate supervision over those children who bring home lunches as well as over those who eat at the cafeteria. A place for eating lunches should be provided all the children. They should not be allowed to eat cold lunches while at the same time running about over the playfield or standing shivering about the exterior corners of the building. Definite assistance and supervision should be given children in the proper selection of foods purchased in the cafeteria. Unrestricted sale of chocolate bars should not be permitted.

It is pointed out (page 45) that one third of the children reweighed this year were as much as seven per cent underweight or more. This conclusively proves the necessity for provision of milk and crackers in the mornings and afternoons to those children who are at present suffering from malnutrition.

EMERGENCY AND WOMEN TEACHERS' REST ROOM

Special rest rooms for women teachers are now recognized as essential and special work rooms for both men and women are generally being installed in all modern school buildings.

Some of the women teachers who have been longest in the system say they have felt the need for such a special room. Under existing conditions in regard to lack of available building space, a women teachers' rest room may also afford a place to which chil-

dren may be taken for proper care in case of accidents or sudden violent illness. The need for a room to serve this double purpose was felt so strongly by the four teacher members of the Fort Lupton survey staff, that during the year they took over an old girls' shower room, re-kalsomined it themselves and in other ways attempted to make useable an otherwise uninviting room. The need is apparent. There is no doubt that a room or suite of rooms meeting the above requirements should be made available. As long as the present building is used to house all three schools, the nurse's office may also be established in this room.

RECOMMENDATIONS BASED ON FINDINGS OF THE SURVEY
CONSTITUTING ELEMENTS FOR INCLUSION IN AN
EDUCATIONAL PROGRAM

VII. HEALTH EDUCATION

Findings No. 1.

Fort Lupton's physical education program partly rests upon old theories now discarded in modern health education programs. There is a great deal of formal gymnastics even in the lower grades.

Recommended Program No. 1.

Abandon most of the gymnastics and substitute games and athletics. This will conform to the newer aims and purposes of physical education.

Findings No. 2.

The gymnasium and playground activities lack adequate supervision.

Recommended Program No. 2.

The services of a physical director who has been trained in accordance with the newer broad purposes of physical education should be obtained. If the full time services of such an officer are not secured, Fort Lupton should co-operate with neighboring towns in employing a physical director.

Findings No. 3.

Fort Lupton has many cases of absence due to illness. These absences represent a tremendous educational and economic loss. Many of these absences could be prevented by a competent nurse. The one or two days per year now given the school by the county Red Cross nurse is absolutely ineffective in securing improved conditions.

Recommended Program No. 3.

The school board should co-operate either with neighboring school boards or Fort Lupton municipal authorities in employing a competent school nurse. To secure a competent graduate nurse trained in public service would probably cost the district and city \$150.00 per month. This nurse would serve in hygiene instruction, examinations, and follow up work in the homes.

Findings No. 4.

Three-fourths of the defects of nose, throat, eyes, ears, etc., found by the Red Cross nurse during the school year 1923-24 have not been corrected. Authorities say that over 90 per cent of such defects can be corrected.

Recommended Program No. 4.

A nurse with time available for follow up work in the homes could with the co-operation of parents greatly improve this situation.

Findings No. 5.

There is a comparatively large per cent of under-weight children in the Fort Lupton schools.

Recommended Program No. 5.

There are enough children, seven per cent or more, under weight to justify the district in making milk and crackers available to these children two times a day. The nurse should advise with parents of these malnutrition children. In many communities mothers form classes in nutrition with the school nurse as instructor.

Findings No. 6.

The immunization and vaccination of the school children is now done by a local physician who is inadequately paid by the city.

Recommended Program No. 6.

This work is a legitimate part of the educational program and should be made such. The medical officer employed by the school should immunize, vaccinate, give physical examinations and perform sanitary inspections, for which services he should be adequately paid.

Findings No. 7.

Fort Lupton devotes seventy-five minutes per week to instruction in health and hygiene, and for physical education. This is one-half the time it should be.

Recommended Program No. 7.

One-third more time should be given to this phase of the educational offering.

Findings No. 8.

Seventy-two per cent of all the children do not eat in the school cafeteria. Lunches brought from home were found to be not the most desirable for young children.

Recommended Program No. 8.

A much larger per cent of children should be induced to benefit from the use of the school cafeteria. Lunch room facilities should be enlarged and more equipment secured. The educational value in working in the lunch room does not justify household arts girls working in the cafeteria for a long period of time. Help should be employed. School authorities should regulate how, when and where young children bringing their lunches should partake of their food. The sale of chocolate bars should be supervised.

Findings No. 9.

There is no nurses' quarters, no emergency sick room, no teachers' work room, and no women teachers' rest room.

Recommended Program No. 9.

For the present a room should be fitted up to serve all the above requirements. When a new building is constructed adequate room should be devoted to these purposes.

CHAPTER VIII

TRANSPORTATION

GENERAL DESCRIPTION OF THE SYSTEM UTILIZED IN FORT LUPTON

There are in the main two different types of transportation systems utilized in Colorado school districts for the purpose of conveying children to and from school. These are the contract system and the district ownership system. In the former, the district contracts with an individual who, for a fixed amount, either per mile or per month, agrees to convey the children to and from school. Under the district ownership form, the district owns the busses, pays all running expenses, and hires its own drivers.

Fort Lupton operates now under the contract system. Up until 1923, the school had owned its busses. The reason for change from "district" to "contract" seems to have been to avoid the expense incident to the purchase of new busses.

At the present time four busses are used to transport approximately 155 children. These are two Kissel cars valued at \$400 each, a Nash car valued at \$800, and a Ford worth \$200. Two are in fair condition, and two of them are in poor condition. Last winter a member of the survey staff accompanied the driver on his route and suffered from the cold. It was impossible to close all the windows, and window panes were broken out.

Sometimes little children wait an extra half hour at their appointed loading places because a bus in need of repair breaks down on the route or because the route is too long or the bus is overloaded. These young children who have had to wait an undue length of time for the arrival of the bus are sometimes excused from morning classes to sit in the furnace room where they may sufficiently warm and dry themselves.

ROUTE DISTANCES

Three of the route distances are fifteen miles each. The route served by the Ford bus is ten miles. These distances are considerably greater than the median route distances in other schools of the state where the contract system is utilized. In the irrigated districts of the state operating under the contract form the median is 9.7 miles compared with Fort Lupton's median distance of 14 miles. Because of these long routes the busses are overcrowded.

THE DRIVERS

Because Fort Lupton operates under the contract rather than the district ownership system, three of the drivers are men not otherwise connected with the school system. One bus is driven by a pupil, the son of one of the contractors. It has been found that it is much more economical to employ pupil, teacher, or janitor drivers than men not otherwise connected with the school. In 84 transportation systems in schools of Colorado the median monthly

salary paid the former is \$25, while the median monthly salary paid these men drivers is \$40.

Among 27 schools operating under contract, Fort Lupton ranks fourth in cost per pupil and eighth in cost per mile.

RELATIVE COSTS UNDER "CONTRACT" AND "OWNERSHIP"
COMPARED*

By making a comparison of the costs in these schools with 21 schools in the irrigated districts operating under district ownership, the advantages of district ownership become apparent.

TABLE X

TRANSPORTATION COSTS PER CHILD PER DAY AND PER MILE IN IRRIGATED DISTRICTS WHICH OPERATE UNDER THE DISTRICT OWNERSHIP SYSTEM COMPARED WITH FORT LUP-
TON'S COSTS UNDER THE CONTRACT SYSTEM—1924-25

Rank	School and County	Cost per Child per Day	Cost per Mile
1	Olney Springs (Crowley)...	.30	.36
2	Del Norte (Rio Grande)....	.26	.18
3½	Center (Saguache) .....	.25	.15
3½	Holly (Prowers) .....	.25	.19
5	Pierce (Weld) .....	.24	.19
6	Wiley (Bent and Prowers)..	.235	.221
7	Loma (Mesa) .....	.23	.37
8	Platteville (Weld) .....	.21	.24
9	Prospect Valley (Weld) ...	.18	.24
10	Crowley (Crowley) .....	.176	.101
11	Cheraw (Otero) .....	.17	.23
12	East Lake (Adams).....	.16	..
13	Sargent (Rio Grande).....	.159	.174
14	Gill (Weld) .....	.156	.213
15	Snyder (Morgan) .....	.15	.20
16	Ault (Weld) .....	.13	.25
17½	Rocky Ford (Otero).....	.12	.247
17½	Hillrose (Morgan) .....	.12	.14
19	Rye (Pueblo) .....	.11	.08
20	Mead (Weld) .....	.107	.208
21	Erie (Weld) .....	.10	.14
District Ownership System: Average for 21 Districts.....		.17	.204
Contract System: (FORT LUPTON) .....		.25	.26

* Much of the data here presented is based on H. E. Green's Master's Thesis, "Transportation Costs in Colorado," C. T. C. 1925.

The facts presented below are based upon cost data for 47 district-owned systems and 37 contract systems in 84 school districts in the state of Colorado for the school year 1924-25:

Median cost per child per day in schools:		Cost per child
A. In irrigated districts		per day
1. Under district ownership.....		\$.017
2. Under contract system.....		.189
B. In dry land districts		
1. Under district ownership .....		.226
2. Under contract system .....		.470
Median cost per mile in schools:		Cost per child
A. In irrigated districts		per day
1. Under district ownership		\$.017
2. Under contract system.....		.25
B. In dry land districts		
1. Under district ownership .....		.150
2. Under contract system.....		.175

Figures 9 and 10 present these findings in graphic form.

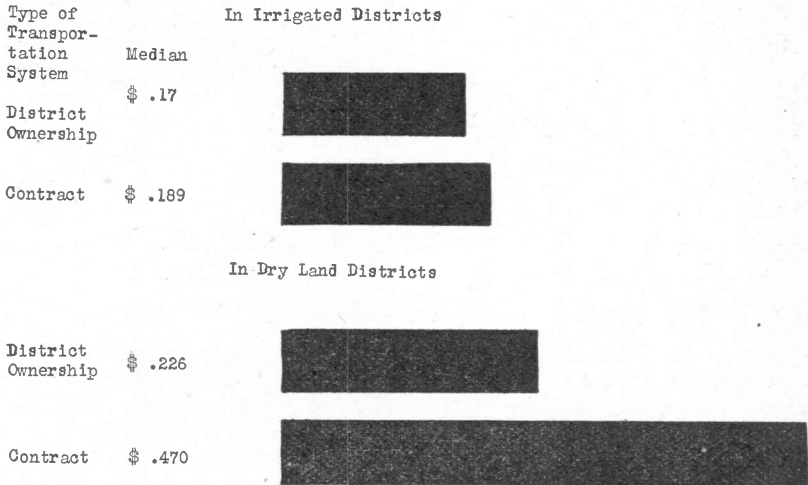


Fig. 9. A COMPARISON OF THE MEDIAN COSTS PER CHILD PER DAY OF TRANSPORTATION IN 84 SCHOOLS OPERATING UNDER THE CONTRACT AND THE DISTRICT OWNERSHIP SYSTEMS, STATE OF COLORADO, 1923-24.

According to bus reports sent to the superintendent of schools in Weld County, Fort Lupton in 1921-22, operating under the district ownership plan, spent \$0.205 per child per day for transportation. Under the contract system the cost per child per day this last year was \$0.25.

Fort Lupton is now paying five cents per child per day more for its transportation under the contract system than it paid in 1921-22 under the district-owned system.

CHANGE FROM ONE SYSTEM OF TRANSPORTATION TO ANOTHER

The history of school transportation in Colorado shows that the tendency has been to change from contract to district owner-

ship. Two-fifths more schools have changed from contract to district ownership than have changed from ownership to contract. In every case where the change was away from district ownership the reason given for the change was that the district would thus be saved the immediate expense of buying busses. Since it can be shown that even after figuring depreciation on the trucks district ownership is less expensive, the change to the contract system in order to avoid immediate outlay has been proven to have been a shortsighted policy.

Type of In Irrigated Districts

Transportation

System used:

District

Ownership Median

Systems \$.17



Contract

Systems .25



In Dry Land Districts

District

Ownership .15

Systems



Contract

Systems .175



Fig. 10. A COMPARISON OF THE MEDIAN COSTS PER MILE OF TRANSPORTATION IN THE 84 SCHOOLS OPERATING UNDER THE CONTRACT AND OWNERSHIP SYSTEMS, STATE OF COLORADO, 1923-24.

The more numerous school systems that have changed from contract to district ownership point out the facts that district ownership is less expensive, the school authorities can exercise a more satisfactory control over the busses, better busses are used, and more definite future policies can be worked out. It was found in 84 school transportation systems in Colorado that busses under the district ownership system were in better repair, less overcrowded, better ventilated, presented a better appearance, and were better heated. Under district ownership extra trips to county fairs, school competitions, etc., can be made with great convenience at the discretion of school authorities. Under the contract system special arrangements at added costs must be made every time the busses are needed off the routes.

RECOMMENDATIONS BASED ON FINDINGS OF THE SURVEY CONSTITUTING ELEMENTS FOR INCLUSION IN AN EDUCATIONAL PROGRAM

Findings No. 1.

VIII. TRANSPORTATION

Fort Lupton is the oldest consolidated school in Weld County and therefore claims the distinction of having transported children to and from school for ten years. Up until 1923, the district owned its own busses. The district now contracts for four busses which carry on an average of 155 children. Two of these busses are in very poor condition. The other two are only fair. The service is impaired by the use of unsatisfactory trucks and a lack of sufficient transportation facilities.

Recommended Program No. 1.

Whether the contract system is retained or a change is made to district ownership, better and more busses are needed.

Findings No. 2.

The average route distance in sections of Colorado similar to Fort Lupton is 9.7 miles. The average route distance for Fort Lupton is about 14 miles. Overcrowding results.

Recommended Program No. 2.

Adequate facilities should be provided.

Findings No. 3.

Fort Lupton pays \$24.50 per month more for transportation than the average of 27 districts operating under the contract system. In both number of routes and number of busses operated Fort Lupton is typical of the school systems used for comparison. The average number routes is 2.3, and average number of busses is 3.

Recommended Program No. 3.

Although too little is being spent for transportation, costs are relatively high for service rendered. This is partly due to the use of the contract system, which should be changed.

Findings No. 4.

Among 18 schools in irrigated districts operating under the contract system Fort Lupton's costs per child per day and costs per mile are relatively high.

Recommended Program No. 4.

Unless there are serious and peculiar local conditions which dictate a different policy, Fort Lupton should return to the district ownership system, which is less expensive.

Findings No. 5.

Costs per child per day and costs per mile are lower under the district ownership than contract system, whether it be in dry land or irrigated sections of Colorado.

Recommended Program No. 5.

Because it is less expensive the Fort Lupton district should return to the district ownership system.

Findings No. 6.

In district ownership transportation systems service is superior to service under the contract system. Busses under this system are available for many school purposes.

Recommended Program No. 6.

Because the district ownership system is more satisfactory, Fort Lupton should return to its former system.

Findings No. 7.

More schools in Colorado have changed from contract to district ownership than have made the opposite change.

Recommended Program No. 7.

The change to district ownership will make for economy and more efficient service.

CHAPTER IX

THE TEACHING PERSONNEL

THE SOURCE OF TEACHER SUPPLY

Fort Lupton is fortunate in having a corps of twenty teachers whose homes are in a number of different states, and whose training has been received in as many as thirteen different teacher training institutions. These characteristics, possessed by a teaching personnel, make for balance and breadth of educational viewpoint. Although a majority, 85%, of the teachers of Fort Lupton are Colorado residents, middle western states, Kansas and Illinois are represented.

A large percentage, 23%, of the elementary teachers are local women. Teachers of permanent residence in a school district are in a position to be of great value to the local school system. However, there are many grave disadvantages that frequently develop in connection with employing a large per cent of "home talent" teachers. Many boards of education throughout the country have passed rules to the effect that local teachers shall not be recommended by the superintendent for election. It is in the elementary school that these home talent teachers are employed. There are no local resident teachers employed on the high school staff.

The various institutions of higher learning that have trained in part or in whole the Fort Lupton 1924-25 teaching personnel and the number each has trained are: Colorado State Teachers College, 11; University of Colorado, 5; Denver University, 2; Colorado Agricultural College, 1; Pittsburg State Teachers College, 1; University of Wisconsin, 1; Southwestern College, 1; University of California, 1; Beloit College, 1; Iowa State College, 1; Bethany College, 1; and Kansas State Teachers College, 1.

TRAINING OF FORT LUPTON TEACHERS

The generally accepted minimum standard amount of training for elementary teachers is 2 years above high school. Four years or more is desirable. The following is the amount of training received by Fort Lupton's twelve elementary school teachers:

1 has had 3 years training above high school.

3 have had more than 2 but less than 3 years training above high school.

7 have had exactly 2 years above high school.

1 has had no training above high school except one year in a business college.

The standard minimum amount of training for high school teachers has been fixed at 4 years of training above high school. Following is the amount of training received by Fort Lupton High School teachers:

5 have had 4 years training above high school (the minimum).

1 has had less than 4 years training above high school.

Fort Lupton cannot afford to employ teachers with less than the amount of training required by accrediting authorities and that is universally considered essential. The employment of a high proportion of men teachers in the high school (3 out of 6 teachers are men) is a commendable practice and compares favorably with other schools of the State of Colorado. For the state the proportion of men to women teachers, in the high schools, is one man to two women.

An investigation was made into the amount of training that had been received by the teachers at work during the school year 1924-25 in 16 neighboring cities the size of Fort Lupton. Although there is not a very wide margin among the cities, Fort Lupton holds twelfth place from the top among the 16 schools.*

EXPERIENCE OF FORT LUPTON TEACHERS

Successful experience is one of the qualifying agencies for teachers as well as for other professional workers. The average experience of elementary teachers is, in Fort Lupton, slightly over two years. Of the two years of experience an average of more than one of these years has been obtained in some school system other than Fort Lupton. If we consider regular high school teachers (this excludes the superintendent and the art and music supervisor) the experience in the high school is: 2 years experience outside the Fort Lupton System and 1 year in the Fort Lupton System.

In the 13 schools furnishing data, Fort Lupton ranks eleventh, showing that a majority of the schools the size of Fort Lupton succeed better in employing and re-employing more experienced teachers.*

EVIDENCES OF PROFESSIONAL GROWTH IN THE TEACHING STAFF

The teaching profession is today in many respects an extremely unstable profession. Methods that are considered pedagogical today, and subject-matter that is evaluated as very worth while, are discarded tomorrow for improved methods and more carefully selected subject-matter. Improvements that are annually being made in the methods of teaching subjects, as reading, spelling, and arithmetic, are so numerous and important that a teacher who fails to constantly keep up to date is within a single year eliminated from the group of professionally-minded and competent teachers. Teachers who do not keep abreast of their profession soon lose their enthusiasm so necessary to successful teaching.

For the above reasons evidences of growth among teachers such as attendance at summer schools, professional reading, active participation in professional teachers' meetings, membership in educational organizations and the like are of great significance when estimating the efficiency of a school system.

A survey of the professional reading done by Fort Lupton teachers was made. A table giving a ranking of teachers in respect

* Tables and explanatory notes have been turned over to Fort Lupton school authorities.

to the total number of professional and general books and magazines read during the school year 1924-25 was prepared.

Seven of the teachers read two, one or no periodicals and books of a professional nature, while at the same time ten of the teachers read four each of professional magazines and books.*

Since many of the teachers are just out of teacher training institutions, a large per cent of teachers would not be expected to have attended summer school. Five of the 21 teachers have attended one or more summer sessions. This is an indication that a proportion of the teachers employed in the Fort Lupton schools are desirous of securing training that will place them out of the class of teachers possessing only the mere minimum of professional training.

All the teachers attend the Colorado Education Association meetings held annually in Denver. One hundred per cent are members of this professional organization. It is a severe criticism against the Fort Lupton staff that none (excepting the superintendent) are members of the National Education Association.

The fact that for 4 months 17 of the 21 teachers (all the teachers except those engaged in directing student activities) not only paid a fee for enrollment in an extension survey course, but gave unstintingly of their time and efforts to the investigation of problems pertaining to the general administration of the system, is ample evidence of the desire on the part of Fort Lupton's teachers to make professional advancement.

STABILITY OF THE TEACHING CORPS

Fort Lupton has to date been unable to maintain necessary stability of her teaching corps. With this condition of affairs the school faces one of its most serious problems. The efficiency of the teaching corps is largely dependent upon the individual teacher's adjustment to his teaching environment. In Fort Lupton, as soon as a teacher has become partially familiar with her position she leaves the system. Eleven of the twenty-one teachers in the system are either teaching their first or second year in their present positions. This means that there has been an annual turnover of 42%, between three and four times the estimated turnover for the entire state of Colorado.

With practically one half of the teachers new to the system each year, it is impossible for Fort Lupton to successfully carry forward definite worthwhile programs of educational improvement. Under no circumstance can the children of Fort Lupton schools realize a maximum service from teachers who are always beginners in the system. Such teachers are definitely handicapped in not being familiar with the social conditions, learning abilities, and individual differences affecting the learning of children. A comparison with other school systems, similar to Fort Lupton, reveals the fact that the local system suffers more from the effects

* A list of the titles of the general and professional magazines read by the teachers as well as the table showing rankings has been submitted to the school authorities.

of teacher turnover than does eight of thirteen similar systems used for comparison. Fort Lupton cannot hope to build up an efficient educational system until the causes for this tremendous turnover is discovered and steps taken to eliminate them.

SALARIES

The school education of children is accomplished directly through the personal services of teachers. Buildings, equipment and supplies exist almost solely to facilitate the teacher's work. Hence citizens of Fort Lupton need not be surprised when they learn that \$51.26 of the \$78.46 it costs in current expenses to keep each child in school for one year is expended for "instructional services." By far the most important item falling under this

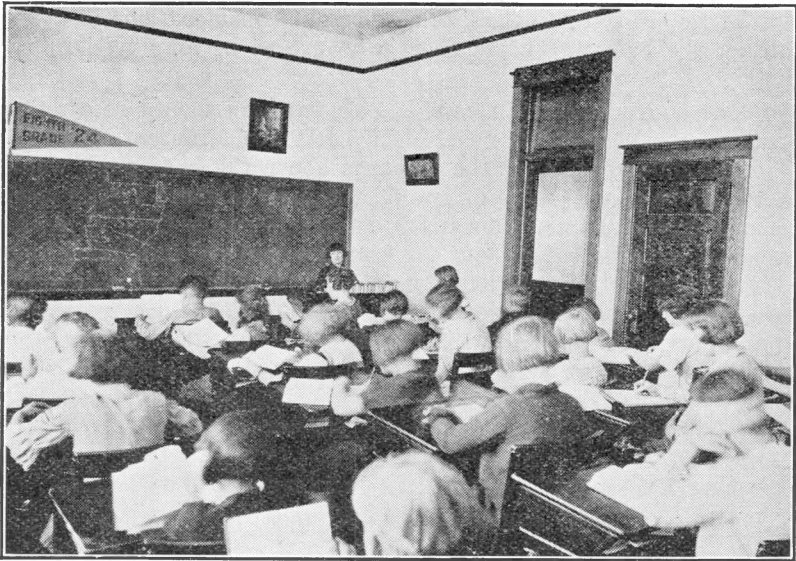


ILLUSTRATION 4

This represents one of the best rooms in the Fort Lupton school building. It has a southern exposure and children receive adequate daylight from the left. Desks are modern, blackboards, color scheme and general appearances are satisfactory. It lacks closet facilities and lighting fixtures.

classification, "instructional services," is teachers' salaries. It is significant to bear in mind when considering the questions involved in teachers' salaries, that Fort Lupton is ranked down the scale to eleventh place among sixteen comparable cities, in regard to the amount spent for instructional service.*

HOW TEACHERS' SALARIES SHOULD BE DETERMINED

The basic pay of teachers in any system of schools should not be determined upon the basis of for what will this or that young

* See discussion of Finance, Chapter XIII.

girl (perhaps a transient in the teaching profession) work, but basic pay should be determined in accordance with intelligently determined considerations such as:

- a. What does it cost to feed, clothe, shelter and provide recreation for a teacher and her dependents?
- b. What in addition to this does it cost a teacher to keep up to date in her work?
- c. What in additional salary will be required to enable this teacher to save something for the "rainy day"?
- d. What are competing school district boards paying the type of teacher we want to hire?
- e. Do the social conditions in our district make it necessary to pay bonuses in the form of additional salary in order to induce good teachers to live in the district?

These are some of the most important considerations in determining the base pay of teachers who are to be employed in the district.

The above does not mean that all teachers should receive the same pay. Perhaps a near ideal basis for differentiating the amounts paid in salary (the amounts above the base pay) would be to pay relatively more or less on the basis of more or less meritorious service. This scheme has been repeatedly tried in scores of school systems throughout the country without producing very many instances where such a method was considered sufficiently satisfactory. Scientific workers in the field of education are still unable to measure either all the essential qualities of teaching ability or the quantitative results of teaching. The obvious advantages that would accrue from such a method, however, justify every competent superintendent in experimenting in the field.

THE RELATIONSHIP BETWEEN TRAINING AND SALARY AND EXPERIENCE AND SALARY

The best bases yet derived for differentiating amounts of pay among teachers of the same system are these:

First, the amount of training the teacher has received above the minimum required; and second, the amount of successful experience the teacher has had.

Accepting these bases there should, therefore, be a direct positive relationship between the number of years training teachers have received and their salary, and also between the number of years successful experience and salary. In short, the teachers with the most training and experience should receive the highest pay.

The proper relationship between salary and training is maintained in so far as the elementary grades are concerned with but a few exceptions. The one outstanding exception is in the case of Teacher "F," whose pay is wholly disproportionate to her training. This is strikingly shown in Figure 11. Teacher "F" re-

ceives among the highest salaries, although she is the least well trained of all the teachers. This teacher, as is clearly seen in the figure, has received no professional training of a teacher training type.

An inspection of Figure 12 will convince the reader that in so far as the high school teachers are concerned there is practically no such desirable relationship existing between amounts of training and amounts of salary. It may be possible to justify one or more of these deviations from otherwise desirable practice as "exceptional" cases but probably not all these can be thus explained.

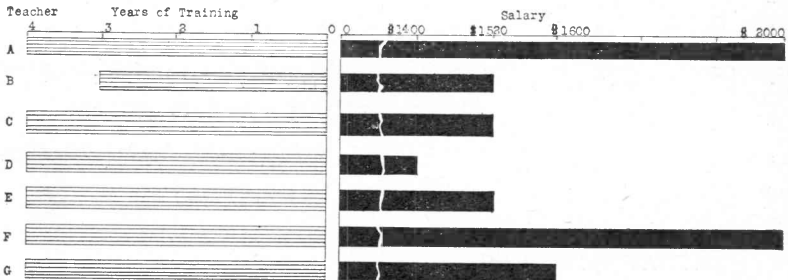


Fig. 11. RELATION BETWEEN TRAINING AND SALARY, ELEMENTARY TEACHERS, FORT LUPTON, COLORADO, 1924-25.

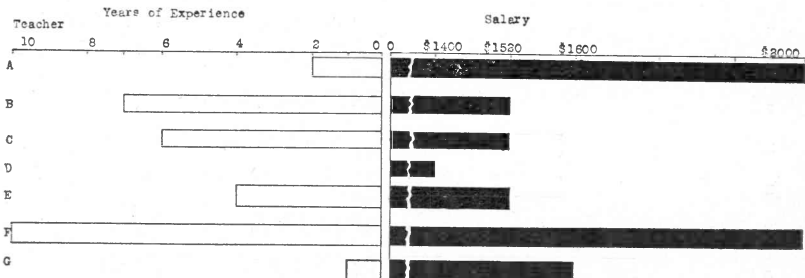


Fig. 12. RELATION BETWEEN TRAINING AND SALARY, HIGH SCHOOL TEACHERS, FORT LUPTON, COLORADO, 1924-25.

Figures 13 and 14 show that for both elementary and high school teachers the more years of experience teachers have had, the lower their salaries. This is an unusual situation. Generally speaking, school officials have been far more ready to recognize the worth of additional experience than they have of training. Although the relationship is negative for total experience, it is the reverse for experience in the Fort Lupton system.

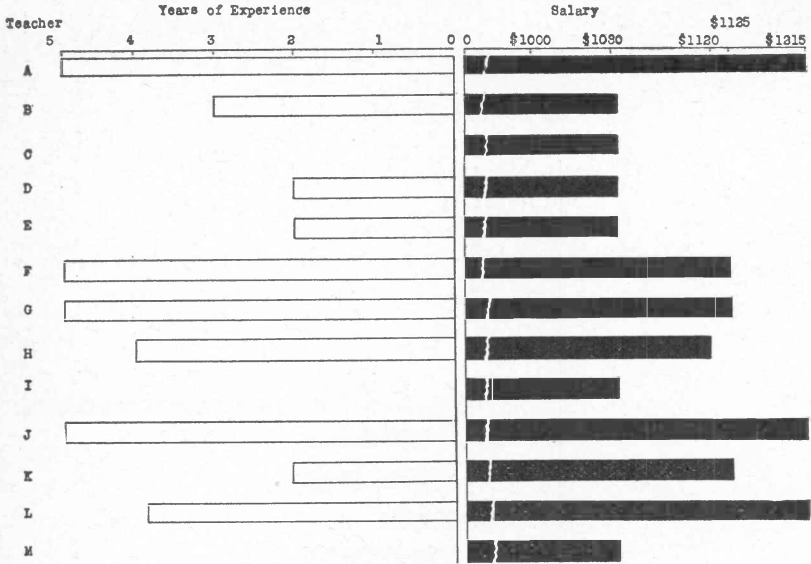


Fig. 13. RELATION BETWEEN EXPERIENCE AND SALARY, ELEMENTARY TEACHERS, FORT LUPTON, COLORADO, 1924-25.

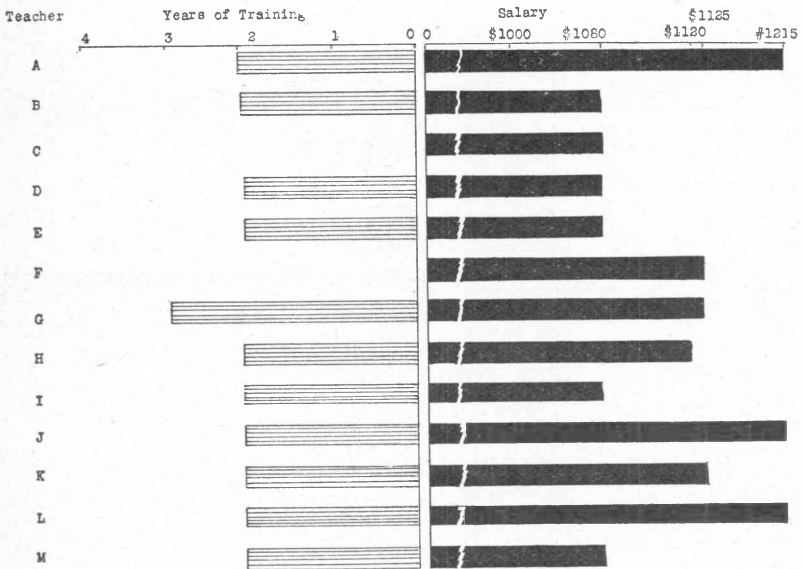


Fig. 14. RELATION BETWEEN EXPERIENCE AND SALARY, HIGH SCHOOL TEACHERS, FORT LUPTON, COLORADO, 1924-25.

THE SALARY SCHEDULE

The salaries paid Fort Lupton school teachers for their services during the school year 1924-25 are as follows:

6 elementary teachers	received between	\$1,080	and	\$1,099
4 elementary teachers	received between	1,100	and	1,199
3 elementary teachers	received between	1,200	and	1,299
1 high school teacher	received between	1,400	and	1,499
3 high school teachers	received between	1,500	and	1,599
1 high school teacher	received between	1,600	and	1,699
2 high school teachers	received between	2,000	and	2,099

Fort Lupton has only a semblance of a salary schedule. Only certain minimums have been set up for teachers of the elementary and secondary schools. No written record that such a salary schedule had ever been officially adapted was available to the investigators on the survey staff.

The lowest salary paid an elementary school teacher in Fort Lupton is \$1080. The highest salary paid an elementary teacher is \$1215. The lowest salary paid a high school teacher is \$1400, and the highest is \$2000. Annual increments in the elementary school have been \$45. Five such increments have been paid to one teacher.

ELEMENTARY TEACHERS' SALARIES

The minimum of \$1080, which is paid elementary teachers, is lower than that paid by thirty per cent of all the cities in the United States of the size of Fort Lupton.* Five of the 13 cities used for comparisons with Fort Lupton pay higher minimums in the elementary grades. Fort Lupton's maximum for elementary teachers is \$85 below the average for all cities in the United States the size of Fort Lupton. Eight of the 13 cities pay higher maximums.

Cities of the United States the size of Fort Lupton grant their elementary teachers all the way from three to thirteen annual increments with the average at 6. As noted above, Fort Lupton has granted five increments to a single teacher. The average amount of such increases for the 13 cities compared with Fort Lupton is \$90 to Fort Lupton's \$45. It is concluded from these facts that in all probability the minimum salary paid Fort Lupton elementary teachers is high enough to attract good teachers, but that in other respects the salary schedule figures are extremely low; especially in regard to maximums and the number and amount of increments. This explains in a large degree why Fort Lupton can hire beginning teachers but fails to hold them for the greater service they are able to render after a few years experience in the system.

* Where references are made in the following sections to salaries paid in the cities of the United States the size of Fort Lupton, reference is made to Research Bulletin Nos. 1 and 2, National Education Association, 1924-5.

HIGH SCHOOL TEACHERS' SALARIES

The average minimum salary for high school teachers for cities of the United States the size of Fort Lupton is \$1350, which is \$50 lower than the minimum in Fort Lupton. Only five of the 13 cities used for comparison pay higher minimums. Thirty-five per cent of all small cities pay higher maximums. In the salaries paid high school teachers Fort Lupton compares favorably with the 13 cities used for comparison. The amounts and number of increments for high school teachers do not seem to have been definitely established. Salaries in the high school are slightly better than in the elementary school. However, the supervisor's salary is included among the six high school teachers' salaries, thereby raising the average higher than it should be.

THE SALARY OF THE SUPERINTENDENT

The position of superintendent in Fort Lupton combines three positions, namely: Elementary School Principal, High School Principal and Superintendent of Schools. Were the average salary paid these three school officers in similar school systems combined, a comparison between the amounts paid in those cities would put Fort Lupton in an unenviable light. As it is, 5% of the cities of the United States with school populations the same as Fort Lupton paid from \$100 to \$2400 more to their superintendents during the school year 1924-25 than Fort Lupton will pay during the school year 1925-26.

HOW TO PAY FOR JANITORIAL SERVICE

The method of contracting for janitorial service with one individual who is paid in a lump sum is an old and extremely undesirable way of hiring janitor service. Only twenty cities out of 555 comparable with Fort Lupton retain this antiquated method of employing janitors. It is assumed that the janitor will employ a second man to help him perform his duties. For this the janitor is paid \$175 per month for 9 months and \$125 for 3 months. About one tenth of the cities the size of Fort Lupton pay a single janitor more than this amount. \$175 per month divided between two men would give each about \$218 per year less than the average received by 1432 janitors of schools the size of Fort Lupton's.

THE SALARY OF THE SUPERINTENDENT'S CLERK

The superintendent's clerk receives \$75 for 10 months or \$750 per year. This is \$100 per year less than the average paid superintendents' clerks in all cities of the United States of from 2,500 to 5,000 population, during the school year 1924-25.

Salaries paid bus drivers are not considered here, since under the contract system these employees' salaries are not determined by school authorities. It was pointed out in chapter VIII that the salaries paid men not otherwise connected with the school are about two times as high as salaries of bus drivers when the district ownership system is in use.

RECOMMENDATIONS BASED ON FINDINGS OF THE SURVEY CONSTITUTING ELEMENTS FOR INCLUSION IN AN EDUCATIONAL PROGRAM

IX. THE TEACHING PERSONNEL

Findings No. 1.

Twenty-three per cent of elementary teachers are Fort Lupton residents.

Recommended Program No. 1.

Fort Lupton needs the influence of a large percentage of outside teachers.

Findings No. 2.

In both elementary and high school, teachers with less than minimum training are employed.

Recommended Program No. 2.

Only thoroughly trained teachers should be employed. Two years above high school for elementary teachers and four years above high school for high school teachers are only the minimum requirements.

Findings No. 3.

High school teachers are of less than average experience.

Recommended Program No. 3.

Teachers should be induced to remain in the system in order that Fort Lupton may benefit from the first years of experience obtained in the system.

Findings No. 4.

About one-half the teachers read twice as many professional and general periodicals as do the other half. All are members of State Teachers Association, but none are members of the National Education Association. Practically all have participated during the year in an extension class of Colorado State Teachers College.

Recommended Program No. 4.

More professional literature should be made available to the teachers by the school district. All Fort Lupton teachers should become members of the National Education Association.

Findings No. 5.

Forty-two per cent of the teachers were new to the local system this year.

Recommended Program No. 5.

Fort Lupton can probably never develop a first class school so long as this annual turnover occurs. Fort Lupton teaching positions must be made more attractive to the teaching personnel. General social conditions should be improved and important changes made in the salary schedule.

Findings No. 6.

The direct positive relationship that should exist between salary and training is fairly well maintained in the elementary school but not in the high school. The relationship between salary and experience is indirect and negative.

Recommended Program No. 6.

Salaries should be more definitely determined with training and experience as bases.

The following schedule is recommended:

CLASS ROOM TEACHERS, ELEMENTARY AND HIGH SCHOOL

	Minimum	Number Increases	Size of Increases	Maximum
I. Normal School (2 years) ..	\$1,100.00	6	\$50.00	\$1,400.00
II. Normal School (3 years) ..	1,250.00	6	75.00	1,700.00
III. A.B. Degree (4 years)	1,400.00	7	100.00	2,100.00
IV. A.M. Degree (5 years)	1,500.00	8	100.00	2,350.00
Head Teacher Elementary				
School	1,600.00	6	125.00	2,350.00
Principal High School	1,800.00	6	150.00	2,700.00
Superintendent	3,200.00	6	250.00	4,700.00

GENERAL AND SPECIAL SALARY SCHEDULE RECOMMENDATIONS

1. Where professional training and experience is the same, no distinction should be made between Elementary, Junior High School and Senior High School teachers' salaries.
2. Provisions should be made in the salary schedule for additional pay to teachers of exceptional merit whether these teachers have reached maximum or not.
3. There should be a probationary period of three years after which teachers who can be induced to remain in the system should have permanent tenure.
4. If men are to receive more than women the difference should be above the schedule proposed.
5. A transitional period of 2 or 3 years is necessary for the proper introduction of the new schedule. Administrative adjustments have to be made.
6. Summer school work should earn a proportionate amount of the difference allowed for years of additional training.
7. Flat increases of from \$50.00 to \$200.00 may be given at any time in the schedule for special work or added responsibilities.

CHAPTER X TEXTBOOKS AND LIBRARIES

TEXTBOOKS

The survey group did not find general satisfaction in regard to the textbook situation in Fort Lupton. Inquiry into this phase of the administration of schools revealed some serious objectionable features.

The Colorado law permits each second class district to adopt its own set of texts different from the texts used in any other school district. The unofficial practice in Weld County is for the county superintendent to recommend for adoption a list to the district boards.

Although Fort Lupton has in the main adopted the books recommended by the county authorities, there have been several exceptions.

The chief difficulties in following the independent adoption of texts lies chiefly in the fact that there is a relatively large per cent of children who move in or out of the district within any given school year. Most of these "transfers" occur among families that move from relatively short distances; very often from locations within the county. Parents of these children should not be compelled to buy a different set of books each time they move. An example of the injustice directly caused from this practice is the instance which came to the attention of authorities in Weld County where the book bill for a single year for parents with a family of five children amounted to nearly one hundred dollars.

A table has been constructed from data giving evidences of lack of uniformity within Weld County. The raw data has been assembled by F. A. Ogle, County Superintendent, in co-operation with H. D. Smith and other members of the Weld County Schoolmasters Club. It shows that within the county as many as 14 different texts for a given subject in a given grade are being used with about as many districts using any one of the 14 texts.

Many districts, however, recognizing the advantages of uniformity are more completely adopting the county-recommended texts. The following advantages of the recommended program over present practice would attend this changed method of adoption:

Advantages of County Uniformity:

1. Possibility of securing lower prices from publishers.
2. Books are, if properly selected, uniformly good.
3. Great saving to families moving from one school district to another district in the same county.

*Five states have county adoptions and 26 more states have gone farther, having uniform adoption for the entire state.**

* The matter of uniformity is not essentially important to Fort Lupton proper if the wiser policy of having the district furnish the texts is adopted.

** U. S. Bur. Bul. of Ed. No. 36, 1924, page 49.

Involved in the adoption of texts is a problem which, from an educational point of view, is even more important than uniformity, namely, the selection of texts. It was thought that since Fort Lupton elected to disregard county recommendations a better system of selection had been adopted by her own educational authorities. However, the survey staff was unable to discover any such system or procedure that would be acceptable to any progressive school system. So far as could be determined texts are often selected for adoption after investigation by a single teacher and upon her recommendation. This recommendation is made without a semblance of a means of measurement of the relative merits of that text over any other text in the same field.

One reason why the Fort Lupton schools have in the past been to some extent rather slow to adopt texts recommended by county authorities lies in the fact that the county officials employed methods of selection scarcely better than Fort Lupton's. However, Fort Lupton will do well in the future to participate in the county selections and then adopt the books recommended. The Weld County school officials together with representatives of the Weld County Schoolmasters Club are at present undertaking the important task of textbook selection according to methods that are educationally sound and more scientific than has ever before been attempted in the county. Definite objective standards have been set up and are being used.*

SUPPLYING TEXTBOOKS TO THE PUPILS

Another series of very serious problems is involved in the method of furnishing books. District number eight does not provide the necessary tools of learning to the children in the school. This constitutes a problem that will continue to be a perennial cause for dissatisfaction among all concerned—the school administrative officers, parents, pupils, and teachers. There will be dissatisfaction as long as Fort Lupton continues the policy of individual family purchase of textbooks; a policy antiquated and long ago discarded among progressive school systems of the country.

The plan now followed is for the superintendent to place the order for texts needed for the ensuing year at the local drug store. This order is placed some time during the summer, that the books may be available in September.

The large part of a full day of education is lost to all the children of the district at the opening of school in order that children may provide themselves with the necessary tools for study. If the actual cost of a Fort Lupton school day, $1/180$ of the annual budget is added to the loss in education sustained by the six hundred children who should be in actual school attendance, the tremendous waste of the system is partially realized. Furthermore, this system does not actually work even after the school is under way. As late in the school year as December, up to five minutes out of the thirty minutes of recitation time was being

* A copy of these standards has been submitted to the Fort Lupton school personnel by the survey staff.

wasted in arranging pupils to sit together because there were not enough of even the basic text to "go around." Through this practice bad habits of study are instilled.

Such a system is not only extremely wasteful of the teacher's and pupil's time but, as has been pointed out, is very expensive.

Some of the special disadvantages of the private purchase and ownership of textbooks as it works out in Fort Lupton are:

The price of books is high.

Teachers and pupils waste hours and days of schooling because all children do not promptly buy the necessary textbooks.

Children moving in from neighboring districts are forced to buy a new set of books.

Books bought for older members of family are out of date and, therefore, unusable at the time the younger children need them.

THE DISTRICT PURCHASE AND OWNERSHIP OF TEXTBOOKS

The more acceptable method of district purchase and ownership is in use in 54 per cent of all city school systems of the United States of from 2,500 to 10,000 population and 80 per cent of all the cities of this size in the more progressive West.* At present 19 states and the District of Columbia furnish elementary books without a direct charge. In 15 of these states the law also applies to secondary school texts. In 22 other states local school districts may supply free textbooks.

Following are the reasons why district purchase and ownership of school textbooks is recommended for Fort Lupton:

1. Books will cost less.
2. All children will be supplied with necessary texts. In a democracy educational opportunity should be denied no child because of his parents' economic status. Children without books should not retard the progress of whole classes.
3. Books will be found by pupils upon entering classrooms the morning of the first day, having been previously placed there by janitors and checked by teachers before the opening of school.
4. It is in line with the American theory of free education. Books are of no lesser importance in the educative process than blackboards.
5. School authorities can enforce better care of the books if they are public and not private property. This result is being attained in the large majority of cities where books are owned by the district.

* Ganders, Harry S., "Personnel and organization in the smaller schools." In press, United States Bureau of Education.

LIBRARIES

Progressive citizens of Fort Lupton have already put forward considerable effort in building up a city library. At present, however, this library does not function as an important factor in the education of Fort Lupton's children. This is due largely to the type of books the library contains and the extremely limited number of volumes in it. Although city libraries sometimes can be made to supplement the school libraries in a very real way, these should never be looked upon as substitutes for adequate school libraries. When citizens recognize that the main task of teachers is to open the doors for her children leading to the rich experience of the race as it is recorded in libraries of books, they will understand in a way why a library in a school is second in importance only to the teacher herself.

All pupils in both elementary and secondary schools should have ready access to books, to the end that they may be trained—

- a. To love to read that which is worthwhile.
- b. To supplement their school studies by the use of books other than textbooks.
- c. To use reference books easily and effectively.
- d. To use intelligently both school and public libraries.

LOCATION AND EQUIPMENT OF THE FORT LUPTON SCHOOL LIBRARY

The school library is located on the second floor on the north side of the older section of the building. Windows, with the exception of one, face to the north, thus providing the worst kind of lighting for library purposes. A much better location for the library would be on the opposite side of the hall just west of the superintendent's office.

In a library walls should be fully utilized for shelving. This has not been done. Instead an old metal stack is used, which cuts off much of the daylight that would otherwise come into the room. Furthermore, books on the upper shelves of this old stack are out of reach of the smaller children.

Replacing this large clumsy stack with neater and more efficient steel shelving would free the floor space for library tables and chairs, which should completely replace the old-fashioned desks that are now in use.

Detachable pasteboard covers for the protection of current magazines and suitable newspaper racks have been procured since the inauguration of the survey. There is no librarian's desk, or bulletin boards.

Upon the suggestion of members of the survey staff an effort was made to better organize the books in the library in order that the materials needed by teachers and pupils might be more readily found. The effort resulted in but temporary gain. Order and system cannot be realized until some teacher who has received library training is placed in charge for at least one period in the day and an adequate system of accounting for the books is installed. Such a system should include order cards, accession record, shelf lists, card catalog, and charging system.

NUMBER OF BOOKS AND MAGAZINES

School boards, superintendents, and principals are just beginning to realize that teachers' persistent demands for more books are not only justified, but they reveal one of the weakest links in our public educational system. That the per cent of school budgets devoted to the purchase of books is appallingly low in practically all school systems is undeniable. If the Fort Lupton Library contained more books than any small city of its size in Colorado and neighboring states, it would not indicate that Fort Lupton's library was adequate. That Fort Lupton's position is sixteenth rather than first among eighteen cities of its size in Colorado and neighboring states is strikingly shown in Table XI. Fort Lupton holds

TABLE XI

NUMBER OF VOLUMES IN ELEMENTARY, JUNIOR HIGH, AND SENIOR HIGH SCHOOL LIBRARIES IN 18 CITIES HAVING APPROXIMATELY THE POPULATION OF FORT LUPTON, 1924-1925

School	Element.	Jr. High	Sr. High	Total
Gallatin, Missouri	10,000	3,000	4,000	17,000
Glenwood Springs, Colo....	2,200	....	800	3,000
Hugo, Colorado.....	800	....	2,000	2,800
Holly, Colorado.....	400	400	1,000	1,800
Wallace, Idaho	500	550	1,500	2,550
Del Norte, Colorado.....	500	....	1,200	1,700
Central City, Nebraska....	200	400	1,000	1,600
Bucklin, Kansas	150	200	1,100	1,450
Clarksdale, Arizona	500	....	700	1,200
Golden, Colorado .....	....	200	1,000	1,200
La Jara, Colorado.....	200	....	1,000	1,200
Primero, Colorado	200	....	700	900
Fruita, Colorado .....	....	....	850	850
Florence, Colorado	200	....	600	800
Center, Colorado	175	75	550	800
Aguilar, Colorado .....	....	300	500*	800
FORT LUPTON, COLO....	....	....	700	700
Limon, Colorado	50	....	500	550
Burlington, Colorado .....	....	....	450	450

* Division of books between Junior and Senior high school libraries is estimated. All Fort Lupton's library books are in one room.

third place from the bottom. About three fourths (72.6%) of the cities whose high schools are accredited in the North Central Association have over 1000 volumes in the high school library alone. Fort Lupton only has 700 volumes in the entire school library. Fort Lupton spent \$95.37 last year for library purposes, while 74 per cent of these North Central Association high schools spent from \$100.00 to over \$500.00.

Table XII gives the Fort Lupton classification of the books now included in the school library. It is seen that the list of books is almost entirely composed of history and literature books that fall in but four of the ten major classifications of human knowl-

edge. Books dealing with the fine and applied arts are wholly lacking. References are given elsewhere in this report which will prove helpful in determining what books should be purchased for the library.

TABLE XII

NUMBER OF VOLUMES UNDER EACH CLASSIFICATION IN THE FORT LUPTON SCHOOL LIBRARY, 1924-25

	No. Volumes
(Classification Is Fort Lupton's)	
Biography and General Reference.....	143
History	138
Sciences	79
Literature—	
Classics	169
Drama	3
Poems	15
Essays	6
Narrative Prose	52
Mythology	5
General	21
Unclassified	169
Total	800

Good judgment has been exercised in the selection of the magazines for use by the high school pupils. When additions are made more thought should be given to the children of the junior high school and elementary grades. It is in those grades that most reading habits are formed. Fort Lupton is third from the top among eighteen comparable school systems, in number of magazines provided in her school library.

TRAINING IN THE USE OF THE LIBRARY

At present no systematic training in the use of the library is provided. Second in importance to having the library is provision for training in the use thereof. (See page 71, "Educational Program," for recommended developments.)

RECOMMENDATIONS BASED ON FINDINGS OF THE SURVEY WHICH CONSTITUTE ELEMENTS FOR INCLUSION IN AN EDUCATIONAL PROGRAM

X. TEXTBOOKS AND LIBRARIES

A. Textbooks

Findings No. 1.

General dissatisfaction with the present system of handling textbooks is everywhere apparent.

Recommended Program No. 1.

Recommendations submitted below should be immediately put into operation.

Findings No. 2.

A large per cent of parents who move into and out of the district are forced to sustain material financial losses because there is an unpardonable lack of uniformity among school districts in basic texts adopted in the various Weld County districts, including Fort Lupton.

Recommended Program No. 2.

If Fort Lupton retains the system of individuals furnishing books, school authorities should enter unreservedly into the co-operative program being fostered by county authorities in an effort to more scientifically select texts that may be adopted throughout the county.

Findings No. 3.

Textbooks are not furnished equally to all children as are buildings, equipment, and teaching services. Each family still buys its own books.

Recommended Program No. 3.

The district should furnish all textbooks necessary to proper instruction of all the children of all the people. If the plan is adopted necessary textbook management procedures will have to be set up in relation to selection, time and manner of adoption, ordering, storing and distributing, care, inventories, accurate records, etc.

Findings No. 4.

The supply of supplementary books is meager indeed. There is not a single teacher who has even a small per cent of supplementary books her pupils need.

Recommended Program No. 4.

The problem of obtaining sufficient supplementary books will in time be partly solved when the district accepts the practice of furnishing textbooks. Supplementary books in reading, history, and geography should be purchased at once.

B. Libraries

Findings No. 1.

Although the city library will, some day in a real sense, supplement the school library, it can not do so at present.

Recommended Program No. 1.

Efforts put forward by cities with a view to building the city library should not minimize the support necessary to build up an adequate school library.

Findings No. 2.

At present north light is provided for the library. There is a question about the adequacy of north light even in Colorado.

Recommended Program No. 2.

The library should be changed to south side of building, wall shelving installed and reading tables take the place of school desks.

Findings No. 3.

The organization for care and circulation of books is practically nihil.

Recommended Program No. 3.

A teacher trained in library service should be placed in charge, the books classified, accessioned, and a card catalog prepared, etc. A good charging system should be installed. Over one-half (55%) of North Central High Schools had services of a part time librarian during the school year 1924-5.

Findings No. 4.

Magazines are well chosen for senior high school pupils. There are practically no magazines for the younger children of elementary grades.

Recommended Program No. 4.

When additional magazines are purchased needs of the younger children should be borne in mind.

Findings No. 5.

No training is given in use of library.

Recommended Program No. 5.

Specific provisions should be made whereby all children in school at sometime early in their educational career receive training in the use of the library. (This can be done in connection with reading or English lessons.)

CHAPTER XI

THE SCHOOL PLANT

THE EVALUATIONS OF SCHOOL BUILDINGS BY THE SCORE CARD METHOD

The school plant is a workshop where not only information is imparted, but where ideals and attitudes are instilled which will accompany individuals throughout adult life. Whether or not a school plant meets the educational building needs of a community should not be left for mere guesses and suppositions, but should be determined by complete and scientific measurement. Within limits, the Strayer-Engelhardt score card for school buildings is an instrument by means of which such measurement can be made. This score card lists and assigns a rating value to all of the features necessary to a modern school building. It consists of five major sections with many subdivisions. The five major sections pertain to Site, Building, Service System, Class Rooms and Special Rooms.

The highest rating value or "score" that any building may be given is 1000 points. A building that scores between 900 and 1000 points is satisfactory. Buildings that score between 700 and 900 are fairly satisfactory. Buildings that score between 500 and 700 need important alterations and installations if they are to be retained for use as school buildings. Buildings that score below 500 probably should be abandoned or radical alterations made.

A very careful analysis of the major and minor features of a building which are listed on the score card forms the basis upon which higher or lower scores are assigned. Scores are distributed on the 1000 point scale as follows:

I.	Site	125 points
	Pertains to location, drainage, size and form.	
II.	Building	165 points
	Pertains to placement, gross and internal structure.	
III.	Service System	280 points
	Pertains to heating, ventilation, fire protection, cleaning systems, lighting, water supply, toilets, etc.	
IV.	Class Rooms	290 points
	Pertains to location, construction, finish, illumination, cloakrooms, and equipment.	
V.	Special Rooms	140 points
	Pertains to rooms for school officials, large rooms for general use, etc.	

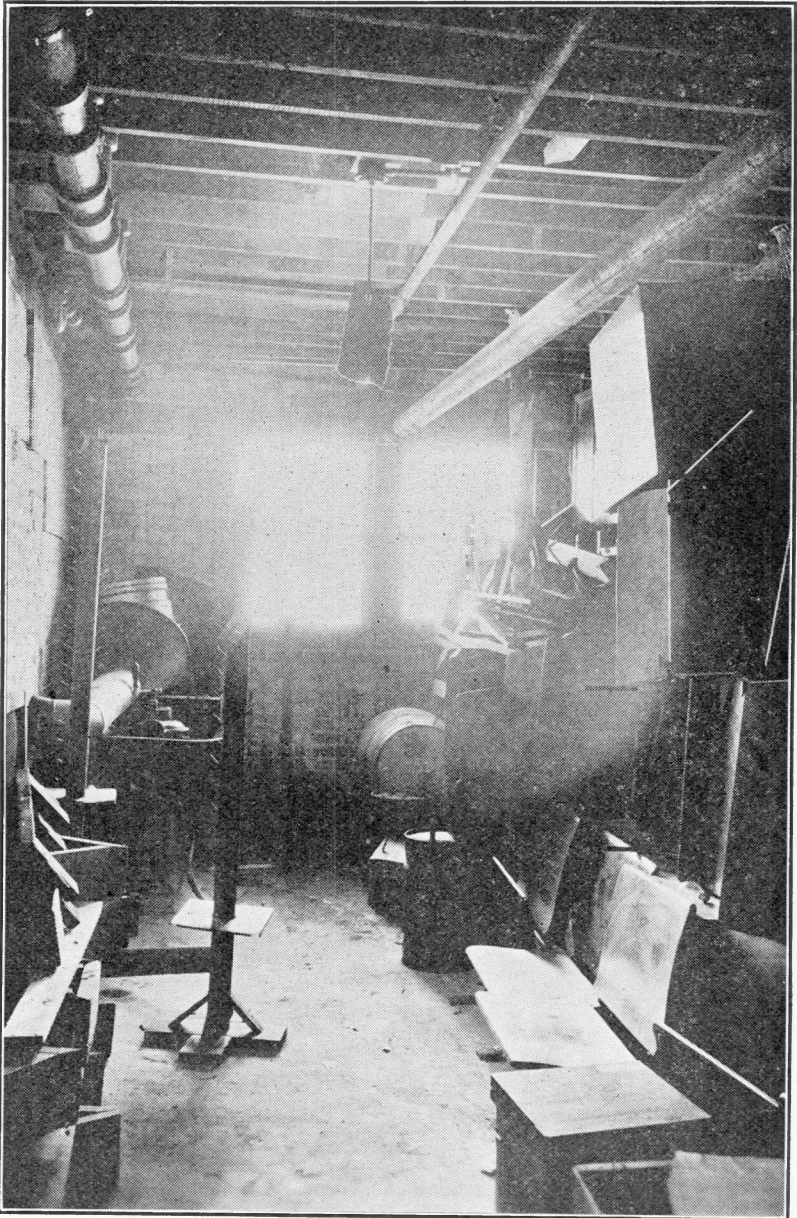


ILLUSTRATION 5

This is the storeroom, which represents unsatisfactory housekeeping, and the accumulation of broken boards immediately on top of combustible oils constitutes an almost criminal negligence.

SCORE OF THE FORT LUPTON SCHOOL BUILDING

The total median score assigned the Fort Lupton school building by five competent examiners is 415 points.* The total number of scores allotted to the Fort Lupton building on each of the major items of the Strayer-Engelhardt score card is shown in Figure 15.

	2		3	
	Standard	Ft. Lupton	Standard	Ft. Lupton
I. Site			125	57
A. Location	55	35	....	....
B. Drainage	30	2	....	....
C. Size and Form.....	40	20	....	....
II. Building			165	58
A. Placement	25	13	....	....
B. Gross Structure	60	25	....	....
C. Internal Structure	80	20	....	....
III. Service System			280	95
A. Heating and Ventilation.....	80	27	....	....
B. Fire Protection System.....	65	14	....	....
C. Cleaning System	20	10	....	....
D. Artificial Lighting System.....	20	7	....	....
E. Electric Service System.....	15	7	....	....
F. Water Supply System.....	30	14	....	....
G. Toilet System	50	16	....	....
IV. Class Rooms			290	160
A. Location and Connection.....	35	25	....	....
B. Construction and Finish.....	95	62	....	....
C. Illumination	85	53	....	....
D. Cloakrooms and Wardrobes.....	25	0	....	....
E. Equipment	50	20	....	....
V. Special Rooms .....			....	....
A. Large Rooms for General Use.....	65	19	....	....
B. Rooms for School Officials.....	35	11	....	....
C. Other Special Service Rooms.....	40	15	140	45
Totals.....	1000	415	1000	415

Fig. 15. SCORE OF FORT LUPTON SCHOOL BUILDING ON STRAYER-ENGELHARDT SCORE CARD FOR ELEMENTARY SCHOOL BUILDINGS, 1924-25

Instructions for Using Card—(1) Basis for scoring, 1000 points. (2) For scoring three columns are allowed. While actually at work on a building only the first need be filled out, the second and third to be filled out at leisure. (3) Where credit is allowed for any single item not present and not needed in a building, draw a circle around such credit. All scores should be recorded on the basis of the Standard outlines in the bulletin: "The Strayer-Engelhardt Standard for Elementary School Buildings." Bureau of Publications, Teachers College, Columbia University, N. Y.

* The detailed score cards have been turned over to the school staff.

THE FORT LUPTON SCORES COMPARED

How the score for the Fort Lupton building compares with scores for sixty-seven other school buildings, many of which have already been replaced with more modern buildings, is shown in Table XIII.

TABLE XIII

THE SCORES FOR THE FORT LUPTON SCHOOL BUILDING COMPARED WITH SCORES ASSIGNED THE MEDIAN SCHOOL BUILDINGS IN OMAHA, NEBRASKA; STAMFORD, CONNECTICUT; NAPA, EUREKA, AND SAN RAFAEL, CALIFORNIA; AND PROVIDENCE, RHODE ISLAND

(Scores of 67 different school buildings in the comparison)

CITIES	Total or Maximum	Item I Site	Item II Building	Item III Service System	Item IV Class-rooms	Item V Special Rooms
Maximum Stand. Score..	1000	125	165	280	290	140
Omaha, Nebraska..... (11 Buildings)	556	93	105	106	216	47
Stamford, Conn. (17 Buildings)	527	66	94	112	179	47
Napa, Calif. (5 Buildings)	481	83	84	93	153	40
Eureka, Calif. (7 Buildings)	474	74	87	89	177	47
FT. LUPTON, COLO.... (1 Building)	415	57	58	95	160	45
San Rafael, Calif..... (5 Buildings)	373	68	67	88	125	42
Providence, R. I..... (21 Buildings)	351	50	59	94	128	29

The important facts from this table are more clearly shown in Figure 16.

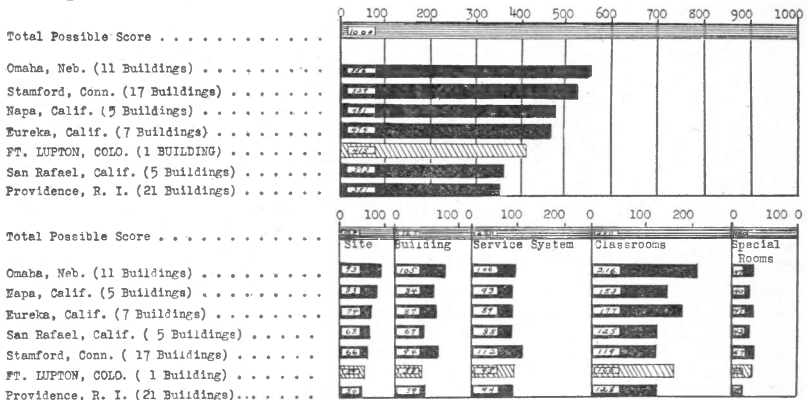


Fig. 16. A COMPARISON OF THE TOTAL POSSIBLE SCORE AND SCORES ACTUALLY ALLOTTED 67 SCHOOL BUILDINGS INCLUDING FORT LUPTON'S BUILDING. COMPARISONS ARE ALSO MADE OF SCORES ALLOTTED ON EACH OF 5 MAJOR DIVISIONS OF THE STRAYER-ENGELHARDT SCORE CARD.*

* The scores of the median buildings were taken for each city. Scores were obtained in each instance from educational surveys of the various cities.

Note that Fort Lupton holds third place from the bottom as far as total score is concerned. The local building ranks low in regard to all of the five major sections of the score card.

The actual rank order is easily seen from an examination of Table XIV.

TABLE XIV

THE RANK ORDER OF THE SCORE OF THE FORT LUPTON SCHOOL BUILDING IN RESPECT TO FIVE MAJOR DIVISIONS ON THE STRAYER AND ENGELHARDT SCORE CARD SHOWN WITH REFERENCE TO THE MEDIAN BUILDING IN SIX OTHER CITIES

Rank	Total Score	Item I Site	Item II Building	Item III Service System	Item IV Class-rooms	Item V Special Rooms
First..	Omaha	Omaha	Omaha	Stamford	Omaha	Eureka
Second.	Stamford	Napa	Stamford	Omaha	Stamford	Stamford
Third..	Napa	Eureka	Eureka	<u>FT. LUPTON</u>	Eureka	Omaha
Fourth.	Eureka	San Rafael	Napa	Providence	<u>FT. LUPTON</u>	<u>FT. LUPTON</u>
Fifth..	<u>FT. LUPTON</u>	Stamford	San Rafael	Napa	Napa	San Rafael
Sixth..	San Rafael	<u>FT. LUPTON</u>	Providence	Eureka	Providence	Napa
Seventh	Providence	Providence	<u>FT. LUPTON</u>	San Rafael	San Rafael	Providence

Among the buildings of seven different large and small cities Fort Lupton holds fifth place in total score, sixth place in regard to site, seventh or last, in regard to building; third with reference to service systems, fourth in regard to both classrooms and special rooms.

WHY FORT LUPTON'S SCHOOL BUILDING SCORES LOW

I. Site—Accessibility and environs of the building are good; however, the demands of modern health educational programs make necessary adequate playgrounds and athletic fields. Hence, just a little more than sufficient grounds on which a building can be placed is wholly inadequate. The commonly accepted standards for schools the size of this is from five to ten acres. Many cities are providing twenty and thirty acres as sites for single school buildings—this where land is worth many times the value of Fort Lupton real estate. Even without taking in consideration the fact that a new building will soon need to be erected, the present site is inadequate.

Another reason why the site has been rated low is due to the lack of drainage. During and after rains and at times of melting snow as much as 4 inches of water covers a large part of the play space. Steps should be taken at once to remedy this condition. Either the grounds should be filled in or drainage ditches dug. The nature of the soil is satisfactory. The difficulty lies entirely in the matter of elevation.

II. Building—Orientation of the building and its placement on the site are fairly satisfactory. It is in the matter of gross structure and internal construction that the building is most to be condemned. The material used in the exterior walls is brick, while all internal walls, studding, floors, ceilings, stairways and roof are entirely of wood. This represents one of the poorest types of modern school buildings. The building is of the correct height, but excavations for basement classrooms should never have been permitted. Cost of such rooms is too great and they are improper locations for purposes of education. Stairways that are of wood and dangerously wide besides being improperly placed with reference to possible economy of space is the chief cause of the extremely low rating of this building in regard to internal structure. Corridors are in the main much too narrow. The inadequate passageways are made still more inefficient by providing hooks upon which children's clothing is hung. The color scheme in rooms and corridors is, on the whole, satisfactory.

III. Service System—Heating and Ventilation—There are two separate heating plants which seem to provide adequate heat except during periods of extreme cold. Both boilers are of the low pressure type, which is a much better system for school buildings than the high pressure type. Without question the two plants within a single building is inefficient from the standpoint of fuel consumption and time required for operation and upkeep.

In the old section of the building there is no ventilation system as such. Toilet rooms are forbidding because of the lack of ventilation. There probably is no necessity in a locality such as Fort Lupton for the installation of expensive ventilation systems in either this or future buildings. However, if the window gravity system is to be used, proper deflecting boards and exhaust flues should be provided. There is absolutely no automatic temperature control. In several classrooms a thermometer could not be found. In two of the rooms the following temperature readings were made, 75° F. and 77° F. Since the maintenance of the proper temperature of the air is one of the most important elements in satisfactory ventilation, the omission of the thermometers is a gross error.

FIRE PROTECTION

The situation with reference to the inadequacy of fire protection constitutes a positive and serious danger. There is insufficient fire-fighting apparatus such as fire extinguishers. At the time the building was scored, there were but four fire extinguishers and most of the teachers did not know where they were or how to use them.

The whole building represents the direct opposite of fireproofness. As a matter of fact, the Fort Lupton school building, which houses for nine months out of the year Fort Lupton's future population, is constructed almost exactly like an old-fashioned box stove. Outer walls are of brick while inner walls, floors, ceilings, stud-

dings and even stairways, which are supposed to offer means of escape, are entirely made of wood.

Fire doors and partitions which are installed in all modern school buildings are absolutely non-existent in this structure. Exit lights and signs cannot be found in the main part of the building. A panic bolt, required by law in many states to be installed on all exit doors, was found on but one exit and this exit was found

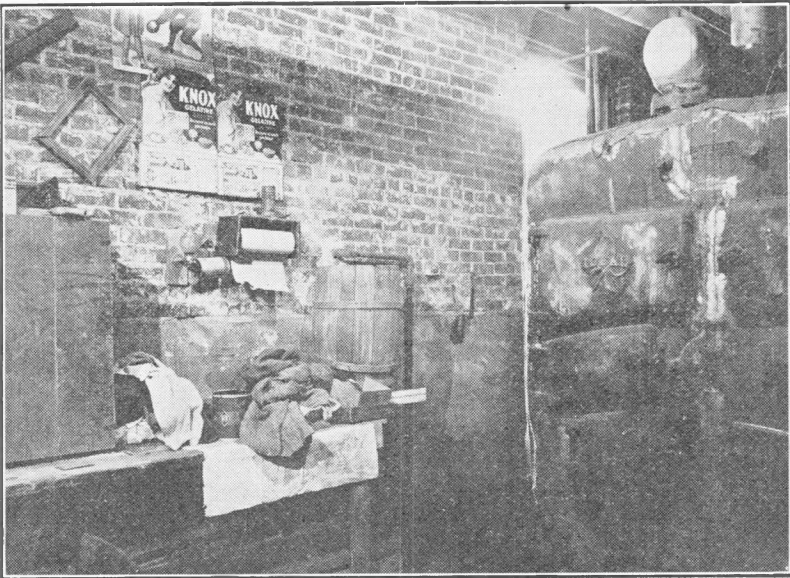


ILLUSTRATION 6

One of the two furnaces used to heat a single building of twenty rooms. The wooden ceilings, only a few feet above the top of the furnaces, are not protected in any way from ignition.

This also furnishes another illustration of the inadequacy of janitorial service provided in this school.

locked. There were no panic bolts on the doors at the main entrance. The door lock of this main entrance is almost impossible of operation from the inside due to needed repairs. A building such as this should fairly bristle with fire escapes. There are but two for the entire building.

In addition to these deplorable conditions unprotected wooden ceilings are found immediately over the two furnaces. Furthermore the inexcusable storing of inflammable janitorial supplies underneath wooden stairs constitutes additional and unnecessary hazards. Immediate steps should be taken to remedy these conditions, for they constitute daily positive dangers to the lives of Fort Lupton's children. As the building now stands it should unquestionably be condemned as a building to be used for school purposes.

THE CLEANING SYSTEM

There is no central vacuum cleaning system. All floors are swept with the floor brush. There was little evidence of scrubbing. Floors in general need oiling and the janitor should be provided with necessary sweeping compounds in order to "hold down" the dust. The cleaning of classroom and vestibule floors, glass, drinking fountains, washbowls, seats, urinals, and furnace rooms must be pronounced as very inefficient. This judgment was expressed by every observer on the survey staff. (See page 80 for discussion of causes of inefficiency in janitorial service.)

There is neither a complete clock nor telephone system within the building. The bells and gong systems have only partially been installed.

WATER SUPPLY SYSTEM

Bathing facilities for the rank and file of pupils is lacking. The odor that one senses upon entering the building attests to the necessity for sufficient showers. Drinking fountains were on the whole well placed but some were out of order, in need of repairs, and dirty.

TOILET SYSTEM

The toilet facilities are not adequate to meet the needs of the school. There should be approximately 1 seat for every 15 girls and 1 seat for every 25 boys. The toilet rooms are inadequately lighted and ventilated. They are not properly placed to afford proper seclusion. The girls' toilet is immediately opposite a narrow corridor from the boys' toilet. There is no screen at the door of the boys' toilet room.

CLASSROOMS

SIZE AND LOCATION OF WINDOWS

In every room with one exception windows are located on the long axis of the room to the left of the pupils. This is a standard practice in all modern school buildings. Fifty per cent of the windows have south exposure, and fifty per cent north exposure. Standards recommend that exposures be to the south, southeast, east, southwest or west. These exposures are recommended because it is better lighting, and direct sunlight is beneficial to health of children.

AMOUNT OF NATURAL LIGHTING

The ratio of the glass area in classrooms should be one-fifth to one-fourth of the floor space. The ratio of the glass area of the Fort Lupton building varies from one-fourth to one-eighth.

ARTIFICIAL LIGHTING

Artificial lighting for classrooms should be provided from six to nine electrical outlets, and the lights should be of the indirect or semi-direct type. The rooms having the least amount of glass area have but a single electrical outlet. The primary rooms are

provided with four outlets. All lights are of the direct type. The main corridors are provided with one electrical outlet; some of the side corridors are provided with outlets, others are not. The corridors not provided with electrical outlets are very dark and get no direct light.

COLOR SCHEME

Correct standards are adhered to so far as color scheme for classrooms is concerned.

FLOORS

The floors are of wood and, according to the report of the janitor, they are oiled but once a year. They should be oiled at least three times per year, at each vacation period.

Blackboards should be placed at the front and to the left of the pupils. The standard material for blackboards is slate. Those that are not slate are almost unusable and should be replaced. The dimensions of blackboards and height of chalk rail should be adjusted to the size of children who use them.

CORRIDORS AND HALLWAYS

The corridors and hallways are used for cloakrooms, which is a very undesirable arrangement, as it obstructs passage way and detracts from the aesthetic appearance of the building. Special cloakrooms should be provided.

SPECIAL ROOMS

The Fort Lupton school building is provided with the following special rooms: gymnasium and auditorium combined, music and art room combined, manual training room, home economics room, cafeteria, a small office for the superintendent and his secretary, and store rooms. A combined gymnasium and auditorium is not desirable in that it is not possible to carry on both gymnasium and auditorium work at the same time. Although it is undesirable to use basement rooms for class activities, household arts, music and art, first and second grades are there located. The cafeteria is also in the basement.

THE CARE OF THE SCHOOL PLANT

The care of the school plant is unsatisfactory from almost every point of view. Everywhere are evidences of janitorial work left undone or of work too hurriedly passed over. Many of the little finishing touches that change the whole atmosphere of a building are unknown here. Even the basic work such as sweeping floors, dusting, cleaning toilets, furnace rooms, drinking fountains, and making minor repairs are not accomplished with sufficient completeness and at frequent enough intervals.

The cause does not lie wholly in the type of individual employed. He undoubtedly is doing the best he can. The trouble lies in the system adopted by the board in contracting to a single individual all the janitorial work and paying him in a lump sum.

Under this system the janitor is himself supposed to hire sufficient help to insure proper service. The practice has worked out in Fort Lupton much as it has in other places: The salary, if divided between two men, is too low. The head janitor fails to hire sufficient competent help. The result is totally unsatisfactory service.

The contract system has long ago gone by the board in more than 96% of the cities of the United States. There is not a single reason why this archaic system should not be abandoned. Let the board through its chief executive, the superintendent, hire all the help necessary to do the janitorial work. Pay reasonable wage to each man and then expect nothing but first-class service.

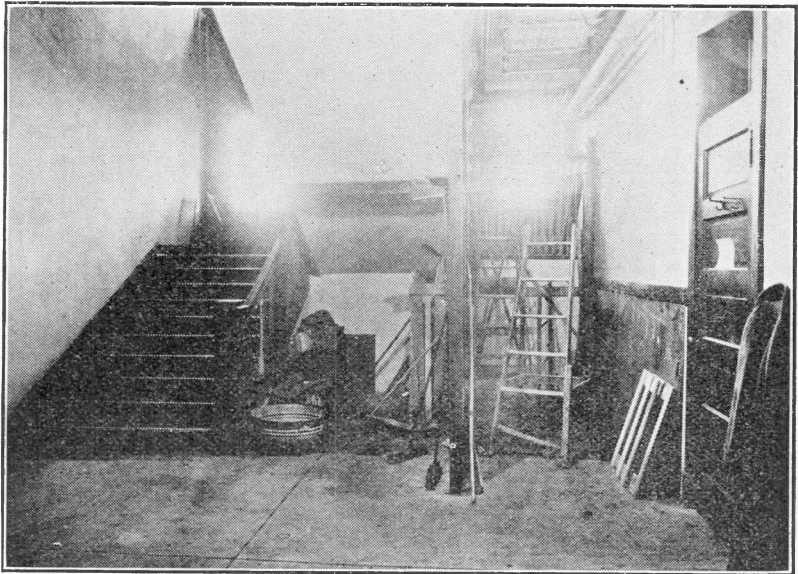


ILLUSTRATION 7

The situation portrayed here is positively the worst imaginable. Combustible janitorial supplies with broomhandles, ladders, and dry boards to insure adequate kindling for a possible fire immediately underneath and to the side of wooden stairs which are supposed to furnish the only exit in case of fire for scores of Fort Lupton's children.

Within twenty-six miles of Fort Lupton, at the Colorado State Teachers College, has been established perhaps the first school for janitors conducted in a college or university. Here janitors are trained at the expense of the state and local communities that they may render a more efficient service to the public schools of the land. Attendance at this school should be made a requirement of all men employed to do janitor work in the Fort Lupton schools. Economies that trained janitors are able to effect will many times repay the board for sending their janitors to such a school.

THE ADEQUACY OF THE PRESENT PLANT

PRESENT AND POSSIBLE EFFICIENCY

A study was made to determine to what extent existing building facilities were being utilized.* The section of the building used for high school purposes is about 80% efficient. No school building housing a large or medium sized high school program can be planned so that 100% efficiency can be realized. However, more careful programing together with a change to six periods per day of one hour each will make available much more classroom space.

This change can easily be brought about and it should be done. However, this will not eliminate the greatest difficulties of congestion which are due to exceptionally narrow corridors and vestibules. Present congestion in the corridors is accentuated by using the already too narrow space in caring for children's wraps. Temporarily, accommodations for children's wraps should be provided in classrooms and lockers placed in the spacious central hallway. By means of reorganizations here suggested the building, from the single standpoint of housing, can be made to accommodate children who will enter during the next school year. It must be remembered that with the present internal structure of the building and the existing inadequacies of protection against fire, the building should be condemned for school use.

PREDICTED INCREASE IN POPULATION

Since about 70% of the school enrollment comes from the city proper and but 30% from rural areas, conclusion based on population trends for the city itself should have a high degree of reliability for the situation as a whole. It can be seen from Table XV that the city of Fort Lupton has since 1900 doubled its population more than seven times. Fort Lupton's average increase per year has been third from the highest of the twelve cities used for comparison. Fort Lupton's per cent average yearly increase has been the highest of the group with the exception of Brighton.

If the more conservative figure of 12.7%, which is the average of the yearly percentage increases between the decades 1900 and 1910 and 1910 to 1920, and between 1920 and 1924, is taken instead of the 26% average increase, 1900 to 1924, as the probable percentage increase for succeeding years, the total population for the city will be approximately 2535 by 1930, and by 1935 it will be approximately 3520. If the total rural population increases at only one fifth the rate of the city population the total population for the entire district will probably be about 2980 by 1930 and 4020 by 1935. The school census in Fort Lupton is at present about 38% of the total population. If only 33 1/3% is taken as the figure to represent the proportion of school population to total population, in 1930 District No. 8 will have a school population of 993 in 1930, and in 1935 a school population of 1340. If only 80% of this school population is in school it means that Fort Lupton will need to provide school housing for 794 children by 1930 and 1072 children by 1935.

* Data was turned over to the Board.

According to the conservative estimates above, Fort Lupton will need within five years to house 200 more children. In another ten years she will need to house 500 more children. Expressed in terms of building space, there will need to be an addition of from 8 to 10 classrooms by 1930 or 18 to 20 classrooms by 1935. This is assuming that with the construction of a new building the policy of using basements as classrooms would be abandoned, and that school authorities could make all building space from 85 to 90% efficient.

TABLE XV
THE INCREASE IN THE POPULATION OF FORT LUPTON AND 11 OTHER COLORADO CITIES, 1900 TO 1924

CITY	1900	1910	1920	1924	Total Increase 24 Years	Average Increase per Year	% Average Increase has been of 1900 population
Loveland, Colo.....	1091	3651	5065	5850	4769	199	18
Brighton, Colo.....	366	850	2715	3350	2984	124	34
Lafayette, Colo.....	970	1892	1815	1835	865	36	4
Littleton, Colo.	970	1872	1636	1820	850	35	4
Eaton, Colo.....	384	1157	1289	1560	1176	49	13
FT. LUPTON, COLO..	214	614	1014	1550	1336	55	26
Windsor, Colo.....	305	935	1290	1350	1045	44	14
Holly, Colo.....	364	724	940	1100	736	31	9
Berthoud, Colo.....	305	758	852	900	595	25	8
Ault, Colo. ....	....	569	769	820	251	11	2
Erie, Colo.	697	596	697	780	83	3	.4
Platteville, Colo.	263	430	479	500	237	10	4

In the above consideration no thought is given to needs which would grow out of further consolidations. As pointed out in Chapter I, certain outlying districts will find it profitable to consolidate with Fort Lupton. If the territory to be considered for consolidation (Figure 1, page 2) were incorporated into District No. 8 within the next two or three years, it would mean 20 or more rooms in addition to the above estimates.

RECOMMENDATIONS BASED ON FINDINGS OF THE SURVEY
WHICH CONSTITUTE ELEMENTS FOR INCLUSION IN
AN EDUCATIONAL PROGRAM

XI. THE SCHOOL PLANT

Findings No. 1.

On a 1,000 point scale the Fort Lupton school building is assigned 415 points.

Recommended Program No. 1.

A building which scores less than 500 points is usually abandoned or radical alterations are made.

Findings No. 2.

If the average scores assigned buildings in seven different large and small cities including Fort Lupton are taken together, Fort Lupton's position is third from the bottom.

Recommended Program No. 2.

Fort Lupton needs and can afford as good school buildings as do other cities.

Findings No. 3.

The school site is poorly drained, although the soil is satisfactory.

Recommended Program No. 3.

Either the grounds should be filled in or else drainage ditches should be dug. (A competent engineer should be consulted.)

Findings No. 4.

Basements are being used as classrooms.

Recommended Program No. 4.

Because basement rooms are dark, poorly ventilated and gloomy, their use for classroom purposes should be discontinued.

Findings No. 5.

There is no ventilation system as such in the older part of the building.

Recommended Program No. 5.

Exhaust flues should be installed and deflecting boards placed at the base of windows.

Findings No. 6.

There is no automatic temperature control and no thermometers in the classrooms.

Recommended Program No. 6.

An automatic temperature control should be installed and desk thermometers provided each teacher.

Findings No. 7.

Fire hazards constitute a positive danger that demands immediate attention.

Recommended Program No. 7.

Panic bolts should be installed at each main exit. Stair rails should be installed. Two or more fire escapes should be added. Fire extinguishers in sufficient numbers should be provided and teachers should learn their location and how to operate them. The practice of storing inflammable materials under wooded stairways should be immediately discontinued. The ceiling above the furnaces should be protected against fire.

Findings No. 8.

Floors need oiling. No sweeping compounds are used.

Recommended Program No. 8.

Floors should be oiled three times per year at vacations. Sweeping compounds should be used.

Findings No. 9.

There is evidence of inefficient and incomplete janitor service. The contract system of employing janitors is used.

Recommended Program No. 9.

More janitor service should be secured. The janitors should be trained for their job. The contract system should be discontinued.

Findings No. 10.

Toilet facilities are inadequate.

Recommended Program No. 10.

More of the necessary facilities should be installed.

Findings No. 11.

Classrooms with the lowest per cent glass area have but one electrical outlet. Two corridors are without light.

Recommended Program No. 11.

From two to four additional outlets should be installed in the darker rooms. All corridors should be lighted.

Findings No. 12.

A few of the blackboards are unusable.

Recommended Program No. 12.

These should be replaced with first grade slate.

Findings No. 13.

Corridors which are already too narrow are being used as cloak rooms.

Recommended Program No. 13.

Until more building space is available, clothing should be kept in classrooms and lockers in the main vestibule.

Findings No. 14.

The building, so far as the high school section is concerned, is, under present management, 80 per cent efficient.

Recommended Program No. 14.

Under present conditions, the efficiency could probably be increased about 5 per cent. By organizing the school on a six period basis of one hour each the efficiency of the building could be further increased. (Other conditions may make this impracticable.)

Findings No. 15.

By 1930 the Fort Lupton District as now organized will need from 8 to 10 additional classrooms. By 1935 it will need from 18 to 20 additional rooms. If further consolidations are effected approximately 20 more rooms must be added to the above estimates, depending of course upon the area included in the consolidation.

Recommended Program No. 15.

Within two or three years Fort Lupton should commence the construction of a new Junior-Senior High School to accommodate increased enrollments due to the natural growth of the district and possible additional consolidations.

CHAPTER XII

SCHOOL ACCOUNTING

NECESSITY FOR COMPLETE AND ACCURATE ACCOUNTS

Directors and stockholders in every large business corporation demand that their executive officers keep detailed records and make full reports to them of the affairs of the business. These records and reports are considered absolutely essential in that they show for what purposes money has been expended, what use has been made of goods and equipment and the amount of money made or lost as a result of goods produced and sold. From the standpoint of money invested and amounts annually expended, the school is one of the biggest businesses in any community. It is the business which has by far the greatest import. Why accounting for children, accounting for materials used for their instruction and money expended in their interests should be done in a haphazard way while all insist upon absolutely accurate accounting in businesses is hard to understand.

Taking the schools of the country by and large the accounting there found is from the standpoint of business efficiency a disgrace. Inefficient school accounting is responsible for the fact that untold sums of money are wasted, goods are misused and lost, and children are deprived of educational opportunities through non-attendance or mal-classification within the system.

The chief functions of school accounting are :

1. The facilitation of administrative control.
2. The mechanizing of routines.
3. Making possible the measurement of the schools.
4. Making possible the prediction of future needs.
5. Providing the means for comparison with other school systems.
6. Making possible the development of economies in the plant, in goods utilized and in services rendered.*

In short, school accounting should make it possible for school authorities and the people to know what the schools are doing.

How best to accomplish the above results is still an unsolved problem. However, much has been done that is in advance of the system now used in Fort Lupton and a majority of schools of its type.

A set of standards have been prepared for a complete system of school records and reports. Score cards have been devised for judging the same.**

* The Superintendent at Fort Lupton has procured Strayer and Engelhardt's standards that give in detail just what the necessary school accounting system should be.

** Strayer and Engelhardt, *School Records and Reports*, Bureau of Publications, Teachers College, New York City, 1924.

EVALUATION OF FORT LUPTON'S RECORDS AND REPORTS

Figure 17 is a partial reproduction of the Strayer-Engelhardt score card which was used in evaluating the Fort Lupton system. It gives the score (first column on the left) that should be assigned to various large groups of accounts and (second column) the highest score that could be allowed on the Fort Lupton system. The third column shows the per cent of efficiency.

The application of the score card method in evaluating the Fort Lupton accounts revealed the following serious deficiencies:

RECORDS AND REPORTS INVOLVED IN GENERAL CONTROL

The board maintains an acceptable minute book. This book should be filed in the school office and back numbers should not be found in individual board members' summer homes fifty miles from the school. The most serious omission here is the total absence of anything even simulating a set of written rules and regulations. Such rules should define powers and duties of all school officers and provide teachers and other employees with regulations under which to work. A set of rules and regulations are to a school system what charts and maps are to navigators.

The most outstanding lack in so far as general control records of the superintendent's office is concerned is the lack of continuity in the records kept. Records do not go back far enough and the records of the achievements of one year do not dovetail into the next succeeding report. This condition is frequently found among the school systems in the smaller cities. In the case of Fort Lupton there is absence of continuity because prior to the present administration there was no record system as such.

The board does not keep a record of accounts payable, accounts receivable, nor does it regularly make monthly reports of appropriations and balances.

The survey staff experienced great difficulty in ascertaining procedures and accomplishments of the attendance service largely because there have been no reports made by the attendance officer. Where an efficient attendance department is functioning a system of reporting between teachers, principals and attendance officer is indispensable.

Standard divisions are not used for headings of the distribution ledger. This makes general comparisons of cost almost impossible. Fort Lupton should adopt the system advocated for the last twelve years by the department of superintendence of the N. E. A., which is now adopted in thousands of school systems.

RECORDS AND REPORTS INVOLVED IN INSTRUCTIONAL SERVICE

It is seen in column four in the partial reproduction of the score card (Figure 17) that the records and reports involved in instructional service are only 52% efficient. There is no registration card as such for the high school. The greatest difficulty here again is lack of continuity which could be made possible by means of a continuing survey record book. There are but few written courses of study other than outlines prescribed by the state. The

	1	2	Totals	% Effi- ciency	
Records and Reports Involved in the General Control of a School System.....			390	161	41
I. Records of the Board of Education.....	40	12			30
II. Records of the Superintendent's Office..	125	53			43
III. Financial Record of the Board of Education	150	71			47
IV. Census Enumeration and the Enforcement of Compulsory Attendance.....	75	25			33
Records and Reports Involved in Instructional Service			335	175	52
I. Elementary Principals' Records and Reports	90	45			50
II. Secondary Principals' Records and Reports	60	36			60
III. Supervisors' Records and Reports.....	35	7			20
IV. Elementary Teachers' Records and Reports	65	34			52
V. Secondary Teachers' Records and Reports	35	21			60
VI. Textbook Records	25	25†			100
VII. Records for Instructional Supplies.....	25	7			28
Records of Operation of Plant.....			50	0	0
A. Rules and Regulations for the Operation of School Plants.....	50	0			0
Records and Reports Involved in Maintenance of Plant			45	10	22
A. Record of Repair of Buildings and Upkeep of Grounds	45	10			22
Records of Fixed Charges.....			10	10	100
A. Insurance Records	10	10			100
Records and Reports Involved in Debt Service..			20	20	100
A. Bond Records*	20	2			100
Records of Capital Outlay.....			50	14	28
A. Land Records	50		14		28
Records of Auxiliary Agencies.....			100	31	31
I. Library Records and Forms.....	10	1			10
II. Health Records and Reports.....	75	20			27
III. Records and Reports of Other Auxiliary Agencies	15	10			67
TOTAL POINT SCORE.....	1000	421	1000	421	42

Fig. 17. THE STRAYER-ENGELHARDT SCORE CARD AND CHECKING LIST FOR THE RECORDS AND REPORTS OF A SCHOOL SYSTEM IN A CITY OF 100,000 PEOPLE OR LESS

Published by
Bureau of Publications, Teachers College, Columbia University,
New York City

† No textbook records needed at present. District does not furnish books.
* Included in the Strayer-Engelhardt School Record Series. Published by C. F. Williams and Son, Inc., Albany, N. Y.

Fort Lupton system is given full credit for her textbook records. This is done in spite of the fact that there are no such records. There will have to be installed an adequate set of records if the district adopts the policy recommended in another section of this report, namely, that the district furnish textbooks.

OTHER RECORDS AND REPORTS

There are absolutely no records or reports pertaining to the operation of plant and only a single incomplete record of repairs and upkeep of building. Records of debt service, fixed charges and capital outlay are more complete.

A book report is the only record having to do with the Fort Lupton school library. As far as health records and reports are concerned, there are two records: a pupil's physical record card assigned ten points out of a possible twenty-five and a rather satisfactory nurse's report. Records pertaining to transportation are fairly satisfactory. Fort Lupton should co-operate with the county in sending in more regularly their reports on transportation costs.

On the whole it can be said that Fort Lupton's school accounting system is about one half as complete as it should be. It can be said, however, that work involved in keeping the records of the superintendent's office is satisfactorily and efficiently done. The superintendent's office presents an appearance that is business-like and commands respect.

RECOMMENDATIONS BASED ON FINDINGS OF THE SURVEY WHICH CONSTITUTE ELEMENTS FOR INCLUSION IN AN EDUCATIONAL PROGRAM

XII. SCHOOL ACCOUNTING

Findings No. 1.

An evaluation of the school accounts revealed the absence of any complete and interlocking system. Fort Lupton has less than 50% of the records needed. The system was awarded 421 out of a possible 1000 points.

Recommended Program No. 1.

A complete system should be established. A system described by Strayer and Engelhardt in their "School Records and Reports" is probably the best system yet devised. Deficiencies made apparent through the score card check should be installed. This will cost relatively little and it will add tremendously to the efficiency of the system.

CHAPTER XIII

FINANCE

FINANCIAL ACCOUNTING

The following shows the main headings of the classifications of expenditures now used by the Fort Lupton schools:

EXPENDITURES

1. Salaries.
2. Supplies.
3. Repair and Up-keep.
4. Other Operation Costs.
5. Permanent Improvements.

RECEIPTS

Although this system is far superior to the method of accounting previously used, this system is awkward and totally unsatisfactory from many points of view. The most serious difficulty with the system is that it is different from any other system in use in other schools in the county or the state. This makes it extremely difficult to make comparisons with other systems. Such comparisons often lead to investigations of local situations, that result in better allocation of funds, and frequently reveals possibilities for wise economies. To conform to modern practice the five ledger headings now used should be substituted at least by eight different headings as follows: 1 General Control, 2 Instructional Service, 3 Maintenance of Plant, 4 Operation of Plant, 5 Auxiliary Agencies, 6 Fixed Charges, 7 Debt Service, and 8 Capital Outlay.

Such detailed revisions in the recording and reporting system as proposed in Chapter XII are seriously needed in the field of financial accounting.

COST OF EDUCATION IN FORT LUPTON

Fifteen schools of approximately the same size as Fort Lupton furnished data which was used to determine Fort Lupton's relative standing in respect to school costs.

Table XVI shows the total current expenses and current expenses per pupil in average daily attendance for the elementary and high schools combined for 15 school systems, including schools in Colorado, Idaho, Arizona, Kansas and Missouri, for the school year 1923-24.

TABLE XVI

TOTAL CURRENT EXPENSES AND CURRENT EXPENSES PER PUPIL IN AVERAGE DAILY ATTENDANCE FOR THE ELEMENTARY AND HIGH SCHOOLS OF 15 SCHOOL SYSTEMS FOR THE SCHOOL YEAR 1923-24

SCHOOLS	Total Current Expense	Cost Per Pupil in Average Daily Attendance
1. Burlington, Colorado	\$37,589.00	\$127.85
2. Wallace, Idaho	62,407.97	118.64
3. Del Norte, Colorado.....	55,020.00	94.37
4. Florence, Colorado	69,156.06	93.95
5. Glenwood Springs, Colorado.....	54,750.00	93.57
6. Ajo, Arizona	41,495.13	92.38
7. Bucklin, Kansas	27,247.00	88.46
8. Primero, Colorado	57,850.00	83.47
9. FT. LUPTON, COLORADO.....	40,250.00	78.46
10. Cripple Creek, Colorado.....	68,646.83	77.48
11. Center, Colorado	34,625.00	76.77
12. Eaton, Colorado	43,110.00	66.73
13. Gallatin, Missouri	32,690.00	63.11
14. Aguilar, Colorado	17,820.00	40.04
15. Mancos, Colorado.....	15,490.00	38.55

Current expense includes six of the eight major headings: General Control, Instructional Service, Operation of Plant, Maintenance of Plant, Fixed Charges and Auxiliary Agencies. A very great range of costs per pupil in average daily attendance is represented by these fifteen schools. Fort Lupton ranks ninth in cost per pupil in average daily attendance, which is a little below the average for the fifteen schools. Last year eight of the fourteen other cities spent from \$5.01 to \$49.39 more for each pupil in average daily attendance than did Fort Lupton.

ITEMIZED COSTS

The current expenses of 16 schools for the year 1923-24 have been analyzed into six major items, i. e., General Control, Instructional Service, Operation of Plant, Maintenance of Plant, Auxiliary Agencies, and Fixed Charges. Table XVII shows the total expense and cost per pupil in average daily attendance for each of these items for the 16 schools.

For each of these items Fort Lupton ranks from the top of the list as follows: General Control, fourth; Auxiliary Agencies, fourth; Maintenance of Plant and Fixed Charges, eight; Operation of Plant and Instructional Service, eleventh. Fort Lupton is exceptionally low in its expenditures for both Instructional Service and Operation of Plant.

By far the most important item of expense under Instructional Service is teachers' salaries. As already pointed out in Chapter IX, Fort Lupton does not in general succeed in keeping good teachers in her school system. As soon as teachers have received a few years of experience they go to better paying teaching positions. This relatively low ranking of Fort Lupton in regard to Instructional Service largely explains the 42% annual turnover of the Fort Lupton teaching staff.

An important item under Operation of Plant is Janitor's Salaries. Here as in salaries of teachers, Fort Lupton holds an unenviable position. If a greater expenditure were made for operation of plant, the building would probably receive better care.

The relatively higher expenditure for Auxiliary Agencies is due to the expenses incurred in the transportation of pupils. Some of the schools used for comparisons do not need to transport pupils, hence eliminating this expense. Fort Lupton's transportation is the main item under Auxiliary Agencies. The amount spent for health service, which is included under this item, is in Fort Lupton practically nihil.

Following are the percentage expenditures for Fort Lupton, 1923-24, under the following six heads: General Control, 12%; Instructional Service, 65.1%; Operation of Plant, 7.5%; Maintenance, 3.7%; Auxiliary Agencies, 11.1%; and Fixed Charges, 0.6%. The per cent for Instructional Service, Operation and Fixed Charges is relatively low when compared with other systems.

FORT LUPTON'S ABILITY TO PAY FOR EDUCATION

Fort Lupton ranks fourth among fifteen cities in assessed valuation per child in average daily attendance. This valuation is \$6822.00, three times as great as that of Aguilar, Colorado.

Six schools have a lower assessed valuation per child but spend more per child for current expenses than Fort Lupton does, even though the valuation back of each child is higher than that of these six schools. By referring to Tables XVII and XVIII it will be seen that one or more of these schools of lower valuation per child in average daily attendance ranks above Fort Lupton in one or more of the major items of current expense.

A way at arriving at a school district's ability to educate all the children in the district of school age is to determine the amount of assessable wealth there is in the district and divide it by the number of census children. Such a computation for all first and second class districts of the state of approximately the wealth of District No. 8 shows that 60% of all first or second class districts in the state with valuations between 3 to 4 million dollars have less wealth back of each census child than has Fort Lupton.* For example, Fort Lupton is about 2½ times as able to pay for education as is Englewood, or 3½ times as able as Walsenburg.**

* Districts wealthier—Sargent, Silverton, Johnstown, Telluride, and Wray.

** Tables submitted to Superintendent of Schools, Fort Lupton, Colorado.

TABLE XVII.

CURRENT EXPENSE AND EXPENSE PER PUPIL IN AVERAGE DAILY ATTENDANCE FOR THE SIX MAJOR CURRENT EXPENSE ITEMS OF THE BUDGET FOR SIXTEEN SCHOOLS FOR THE SCHOOL YEAR 1923-1924.

School	Rank	SCHOOL	General Control	Cost per Pupil in Average Attendance	School	Rank	Instructional Service	Cost per Pupil in Average Attendance	School	Rank	Operation of Plant	Cost per Pupil in Average Daily Attendance	School	Rank	Maintenance of Plant	Cost per Pupil in Average Daily Attendance	School	Rank	Auxiliary Agencies	Cost per Pupil in Average Daily Attendance	School	Rank	Fixed Charges	Cost per Pupil in Average Daily Attendance
A	1	Shelton, Nebraska	\$4,160.00	\$15.47	B	1	\$44,843.78	\$85.25	C	1	\$ 6,402.87	\$13.92	N	1	\$10,000.00	\$14.43	E	1	\$6,100.00	\$20.75	B	1	\$1,867.76	\$3.55
B	2	Wallace, Idaho	5,170.00	9.83	E	2	24,500.00	83.33	E	2	4,000.00	13.60	B	2	3,601.78	6.84	G	2	9,125.00	20.23	F	2	1,617.95	2.20
C	3	Ajo, Arizona	4,299.65	9.34	L	3	40,600.00	69.40	B	3	6,924.65	13.16	G	3	3,000.00	6.65	H	3	11,200.00	19.21	J	3	1,000.00	1.93
D	4	FT. LUPTON, COLORADO...	4,700.00	9.16	F	4	50,090.00	68.03	K	4	11,200.18	12.64	J	4	2,000.00	3.86	C	4	6,870.92	14.93	E	4	504.00	1.71
E	5	Burlington, Colorado	2,485.00	8.45	O	5	19,450.00	63.15	F	5	9,294.12	12.63	K	5	3,258.73	3.67	D	5	4,500.00	8.77	H	5	800.00	1.37
F	6	Florence, Colorado	5,911.00	8.03	N	6	39,000.00	56.27	L	6	6,230.00	10.65	O	6	960.00	3.12	O	6	2,263.00	7.34	L	6	640.00	1.09
G	7	Center, Colorado	3,500.00	7.76	H	7	32,500.00	55.74	O	7	2,665.00	10.64	F	7	2,241.57	3.05	P	7	2,750.00	7.00	K	7	916.65	1.03
H	8	Del Norte, Colorado.....	4,020.00	6.90	K	8	48,122.29	54.31	A	8	2,665.00	9.90	D	8	1,500.00	2.92	L	8	3,450.00	5.90	D	8	250.00	.48
I	9	Aguilar, Colorado	3,020.00	6.79	M	9	33,726.83	52.20	H	9	5,000.00	8.58	H	9	1,500.00	2.57	N	9	3,150.00	4.54	M	9	251.21	.39
J	10	Gallatin, Missouri	3,040.00	5.87	C	10	23,921.69	52.00	M	10	4,937.69	7.64	I	10	500.00	1.12	M	10	1,235.63	1.91	N	10	200.00	.30
K	11	Cripple Creek, Colorado.....	5,150.00	5.81	D	11	26,300.00	51.26	D	11	3,000.00	5.85	L	11	480.00	.82	J	11	450.00	.87	I	11	100.00	.22
L	12	Glenwood Springs, Colorado..	3,350.00	5.73	J	12	25,000.00	48.26	I	12	2,500.00	5.62	M	12	414.90	.64	I	12	200.00	.45	C	12	.....	.....
M	13	Eaton, Colorado†	3,489.00	5.40	G	13	17,000.00	37.69	P	13	2,000.00	4.92	A	13	85.00	.32	B	13	.....	.....	O	13	.....	.....
N	14	Primero, Colorado†	3,500.00	5.05	I	14	11,500.00	25.84	N	14	2,000.00	2.88	E	14	.....	.....	K	14	.....	.....	G	14	.....	.....
O	15	Bucklin, Kansas†	1,317.00	4.27	A	15	6,880.00	25.58	J	15	1,200.00	2.32	P	15	.....	.....	F	15	.....	.....	P	15	.....	.....
P	16	Mancos, Colorado†	1,500.00	3.70	P	16	9,340.00	22.95	G	16	.....	.....	C	..	.....	.....	A	16	.....	.....	A	16	.....	.....

† Incomplete returns.

NOTE: Capital letters have been used to designate the school. For the first item the letters, rank and city correspond. For other items refer to the capital letter to determine the city, e. g., Fort Lupton is designated by the letter "D".

If the one school in thirty-nine Colorado counties having a census enumeration approximately the same as Fort Lupton's is taken together with the assessed valuation back of each child it is found that Fort Lupton is tenth in wealth among the thirty-nine cities.

TABLE XVIII

TOTAL ASSESSED VALUATION OF 15 SCHOOL DISTRICTS, INCLUDING FORT LUPTON, AND THE ASSESSED VALUATION PER CHILD IN AVERAGE DAILY ATTENDANCE, 1923-24

SCHOOL DISTRICTS	Assessed Valuation	Assessed Val. Per Child in Av. Daily Attendance
1. Burlington, Colorado.....	\$2,850,000.00	\$9,693.00
2. Eaton, Colorado	5,732,000.00	8,886.97
3. Center, Colorado	3,400,000.00	7,538.00
4. FT. LUPTON, COLO.....	3,500,000.00	6,822.00
5. Glenwood Springs, Colo.....	3,943,000.00	6,740.17
6. Shelton, Nebraska	1,741,900.00	6,475.46
7. Wallace, Idaho	3,290,278.00	6,255.28
8. Cripple Creek, Colorado.....	5,062,790.00	5,714.00
9. Bucklin, Kansas	1,550,000.00	5,032.00
10. Del Norte, Colorado.....	2,720,000.00	4,665.00
11. Florence, Colorado	3,263,409.00	4,433.98
12. Gallatin, Missouri	2,125,877.00	4,104.00
13. Primero, Colorado	2,229,586.00	3,231.72
14. Mancos, Colorado	1,281,270.00	3,148.00
15. Aguilar, Colorado	1,133,000.00	2,540.00

The relatively large amount of wealth existing in District No. 8 which lightens the burden of paying for education and other governmental agencies is seen in Fort Lupton's relatively low tax levies for school purposes:

CITY	Part of Gen.	Special	Bond Levy	Total for Education
	Levy for Schools	Dist. Levy		
	Mills	Mills	Mills	Mills
Florence, Colorado	11.9	14.0	...	25.9
Glenwood Springs, Colo.....	13.8	11.83	...	25.6
Del Norte, Colorado.....	4.5	17.0	4.0	25.5
Aguilar, Colorado	11.0	12.0	1.5	24.5
Cripple Creek, Colo.....	13.3	10.0	...	23.3
Mancos, Colorado	3.0	14.5	1.0	18.5
Center, Colorado	4.0	11.0	2.0	17.0
FT. LUPTON, COLO.	3.5	12.07	1.53	17.0
Burlington, Colorado	4.0	11.23	...	15.23
Eaton, Colorado .....	.348	.467	.13	.94

INDEBTEDNESS

Table XIX compares the total bonded debt of 12 comparable cities. Fort Lupton's position among the cities is a little above the average. The Fort Lupton debt of \$88,300 is about one-half the debt of Florence, Colorado, or about one-third the debt of Glenwood Springs.

TABLE XIX

TOTAL BONDED INDEBTEDNESS OF 12 SCHOOL SYSTEMS AND AMOUNT PAID BY EACH DURING THE SCHOOL YEAR 1923-24

Schools	Remaining Indebtedness After 1923-24	Amount Paid for Debt Service
1. Glenwood Springs, Colorado....	\$230,000.00	\$31,000.00
2. Florence, Colorado	150,000.00	10,804.00
3. Del Norte, Colorado.....	130,000.00	8,000.00
4. Center, Colorado	105,000.00	9,200.00
5. Burlington, Colorado	95,000.00	.....
6. FT. LUPTON, COLORADO.....	88,300.00	5,000.00
7. Aguilar, Colorado	51,000.00	51,000.00
8. Bucklin, Kansas	50,000.00	.....
9. Mancos, Colorado	15,500.00	2,770.00
10. Eaton, Colorado	14,000.00	.....
11. Shelton, Nebraska	12,000.00	.....
12. Gallatin, Missouri	9,500.00	3,350.00

An analysis of the total of Fort Lupton's bond issues follows:

	Bond I	Bond II	Bond III	Bond IV	Bond V
Amount	\$16,800	\$5,500	\$18,000	\$8,000	\$40,000
Rate of Interest....	6%	6%	5¼%	5¼%	6%
Date Issued	7-1-13	6-1-14	7-1-19	9-15-19	7-1-21
Type	15-30	15-30	10-20	10-20	10-20
Optional Date	7-1-28	6-1-29	7-1-29	7-15-29	7-1-31
Date Due	7-1-43	6-1-44	7-1-39	9-15-39	7-1-41
How Payable.....	16 bonds of \$1,000, Then 8 of \$100 at the end	All in \$500 amounts	In the following cycles: \$500 \$500 \$500 \$100 \$100 \$100	In ten cycles as the following: \$500 \$100 \$100 \$100	All in denomina- tions of \$1,000

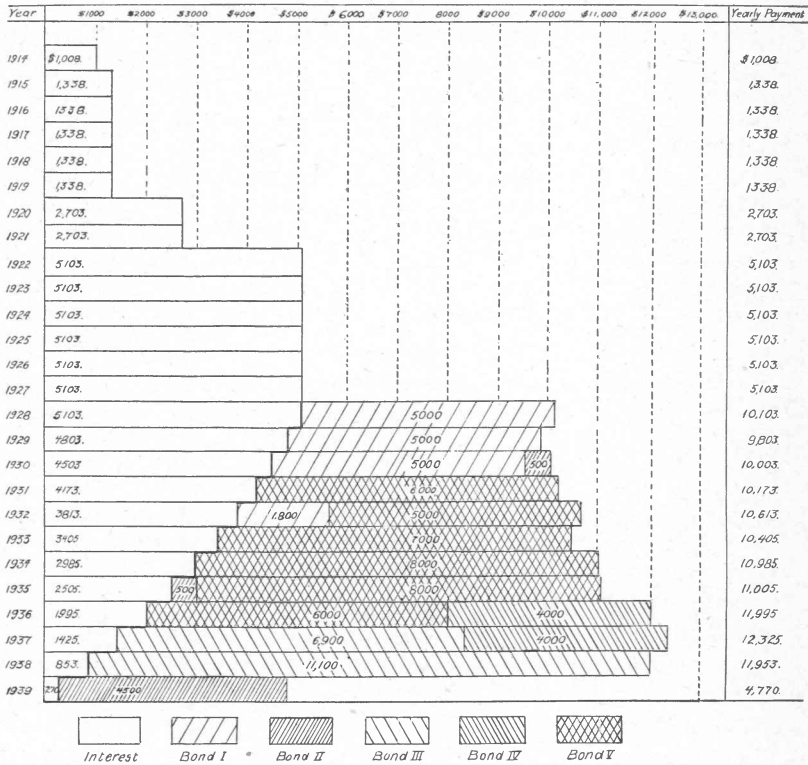
The first bonds were issued so that the payment on them was to be due in thirty years; the later bonds were issued so that payment fell due twenty years after date of issue. Thus all of the bond payments must be made by June 1, 1944.

A table presenting a schedule of payments made on bond issues to date and a proposed schedule that will by 1940 (four years ahead

of final due date) liquidate the district's indebtedness was prepared for the Board of Education. The schedule provides for about equal payments of approximately \$10,000 for each year from 1929 to 1939. A final payment of \$4770, to be made in 1940, clears the district of all existing indebtedness.

The above schedule proposes to pay off indebtedness as soon as possible, thereby obviating the payment of numerous heavy interest payments. (See Figure 18 for graphic presentation of proposed schedule.)

FIGURE 18 GRAPHIC PRESENTATION OF A PROPOSED SCHEDULE FOR MAKING PAYMENTS ON FORT LUPTON'S BONDED DEBT.



Either of two methods for raising the funds would be acceptable. The plan to leave the tax levy where it now is, which makes possible an annual saving that can be applied to principal and interest payments when they become due, has many features to recommend it.

A second plan of raising the money just as it is needed to make payments according to schedule on page 96 is presented in Table XX.

TABLE XX

THE LEVY REQUIRED TO MEET THE PAYMENTS ON FORT LUP-
TON'S BONDED INDEBTEDNESS, ACCORDING TO THE PRO-
POSED SCHEDULE

Year of Assessment	Assumed Valuation*	Amount to be Raised for the Following Year	Levy Required
1924	\$3,521,590.00	\$ 5,103.00	.00145
1925	3,680,120.00	5,103.00	.00139
1926	3,838,650.00	5,103.00	.00133
1927	3,997,180.00	10,103.00	.00254
1928	4,155,710.00	9,803.00	.00236
1929	4,314,250.00	10,003.00	.00232
1930	4,472,770.00	10,173.00	.00228
1931	4,631,300.00	10,613.00	.00229
1932	4,789,830.00	10,405.00	.00218
1933	4,948,360.00	10,985.00	.00222
1934	5,106,890.00	11,005.00	.00216
1935	5,265,420.00	11,995.00	.00228
1936	5,423,950.00	12,325.00	.00228
1937	5,582,480.00	11,953.00	.00214
1938	5,741,010.00	4,770.00	.00083

* It was assumed that the annual increase in assessed valuation would approximately amount to what the average increase has been over a period of the last 11 years. During this period assessed valuation in Dist. No. 8 has mounted from \$1,732,030.00 in 1916 to \$3,521,590.00 in 1924, an average increase of \$158,530.00 annually.

RECOMMENDATIONS BASED ON FINDINGS OF THE SURVEY
WHICH CONSTITUTES ELEMENTS FOR INCLUSION IN
AN EDUCATIONAL PROGRAM

XIII. FINANCE

Findings No. 1.

Fort Lupton's method of accounting for funds makes it extremely difficult to make financial comparisons.

Recommended Program No. 1.

The system of Financial Accounting recommended by the National Education Association should be adopted.

Findings No. 2.

Eight of fourteen comparable cities spend from \$5.01 to \$49.39 more per year for each child in average daily attendance than does Fort Lupton. When Fort Lupton's expenditures are analyzed and compared with those of similar cities it is found that the relatively low costs are due partly to savings in salaries paid to teachers.

Recommended Program No. 2.

More funds should be made available for "Instructional Service" and "Operation of Plant." Then when better salaries are paid elementary

teachers, Fort Lupton can hope to prevent a 42 per cent annual teacher turnover, and can probably as a result build up a more efficient educational system. Janitors should receive more adequate salaries.

Findings No. 3.

Fort Lupton has from 2½ to 3½ times as much wealth per census child as have Englewood or Walsenburg. Fort Lupton's tax levies are relatively low.

Recommended Program No. 3.

Fort Lupton can easily afford to pay what is necessary to produce exceptionally good schools.

Findings No. 4.

Fort Lupton has a total bonded debt of \$88,300. This is only one-half the amount for which Fort Lupton is legally capable of borrowing. The school debt is about an average indebtedness compared with comparable school systems.

Recommended Program No. 4.

Fort Lupton is in a position to bond herself for whatever added expenditures are necessary to care for the school's steady and rapid growth.

Findings No. 5.

Fort Lupton can liquidate her present indebtedness by 1940 without appreciably raising her tax levy.

Recommended Program No. 5.

Bonds whose payment dates could be set for 1940 could now be floated to care for proposed additions to the school site and plant.

