

A PROPOSED PLAN FOR THE CONSOLIDATION OF SOME  
OF THE HIGH SCHOOLS OF JEWELL COUNTY

by

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## INTRODUCTION

One of the many problems facing boards of education and school administrators of the public high schools of Kansas is that of consolidation or better, co-ordination. Everyone is ready to grant that our present plan of districting, administration, and organization is antiquated and deserving of the junk heap, yet few are ready to grant the concessions necessary to improve the situation. There has been a lack of the proper educational and legislative leadership in solving the problems of the school.

If we are to profit by the present deplorable situation we must lay our plans on a larger scale. Whole counties or areas geographically and sociologically suited for new units should be surveyed and reorganized.

The magnitude of the problem of consolidation can be greatly lessened if those who support the schools can be enlightened concerning the definite advantages of school centralization and co-operation. The many social, governmental, and economic changes of the day seem to indicate that now is the proper time to focus added attention on the desired and needed changes in school organization.

Historically, school consolidation is no new and untried experiment. The state of Massachusetts began its

system of school consolidation as early as 1869. The movement spread to other New England states and on to the Middle West and more recently to the South and the Far West. The advent of safe, rapid transportation and good all-weather roads in rural districts makes it a very workable scheme.

That there are great possibilities for the consolidation of the small high schools is evidenced by the fact that the reports of 1930 show that 54 per cent of the public high schools of the United States have an enrollment of fewer than a hundred pupils, and that more than 74 per cent have an enrollment of fewer than two hundred pupils (6). In 1932 there were 369 or 63 per cent of the Kansas high schools with an enrollment of seventy-five or fewer pupils of which 29 per cent employed three or fewer teachers (14). In 1933 there were 28 high schools with enrollments of twenty or fewer. The records show that in 1932 there were seventy-three consolidated high schools in Kansas (2).

Consolidation is not offered as a panacea or magic but it does afford possibilities of a broader, richer curriculum, better buildings and equipment, better teaching and supervision, as well as a means of eliminating a part of the burden of heavy taxes. In short it offers greater educational and economic efficiency.

The plan, as proposed in this thesis, for consolidating some of the high schools of Jewell County, leaves room for considerable criticism. However, as in the case of a moving train, what we see depends largely on our relative position with respect to the train. It has been the purpose of the writer to propose a plan as practicable and as useable as possible, and one that is capable of creating the best educational advantages at the least cost.

#### MODERN THOUGHT CONCERNING PROBLEMS OF CONSOLIDATION

Most progressive changes involve the loss of some old advantages but a greater gain in new virtues. Consolidation is no exception. In consolidation the losses and gains may be thought of as financial, educational, and sociological. To provide better educational efficiency through an enriched and broadened curriculum, designed to meet the community needs, is a decided advantage in favor of consolidation. Likewise the possibilities of securing better teaching and supervision, more complete extra-curricular activities, made possible through larger enrollments and the improvement of the specific content of courses, indicate more advantages.

Proposals and actions that remove small schools to other localities, may produce some sociological losses that

ere irreparable. The intensity of these losses increases with the community interest in the school and the distance to the new consolidated school. In other words, school and community co-operation cannot function so well when the school is completely removed to a considerable distance.

It seems to be reasonable to assume that in agricultural sections a large part of the population will continue to reside in rural areas. Present trends seem to indicate that the migration movement from country to city has been reversed. During 1932 more than a million people migrated to the farm. Gaumnitz reports a fairly high correlation between the number of schools provided in rural communities and the proportion of those attending high school (8).

There is a possibility that the consolidation of many small schools into one large centralized school may be detrimental. Carney expresses it thus:

"What we need, and must have, to solve the problem of rural education, is not an urban school, whose influences lead young people of the farms directly away from the land, but a country school, improved and modernized and adopted to the needs of present country life." (5)

Any proposal for consolidation involves co-ordinating the ideal and the practical to the best advantage. What is the ideal enrollment to be attained by consolidating? Stuart says:

"It seems the rule should be that the enrollment should be large enough to make reasonable provision for developing all forms of ability without undue cost." (15)

He states further in considering class size:

"The studies of Hudson of Minnesota, and of Stephenson of Ohio, bear out the statement that small classes have no advantages and there is evidence that meager numbers may be a handicap-----. A late thesis by D. A. Bates on the size of the class to the efficiency of teaching indicates that large classes are a decided advantage." (15)

A low pupil-teacher ratio is one of the characteristics of the small high school. Very often this low ratio indicates high per pupil expenditures and too many class preparations per day for each teacher. Cyr comments on the relationship between pupil-teacher ratio and the size of the high school as follows:

"A careful study of the relationship between pupil-teacher ratio and size of high school, based on data from 31 states, shows that the median number of pupils per teacher rises from 13.2 in schools with enrollments of twenty pupils to 24 in schools with an enrollment of 500. When the data were charted on a graph the median curve rose rapidly until schools of 80 pupils were reached, then held with a fair degree of steadiness at a pupil-teacher ratio of 20 to 21 for schools between 180 and 200 where it reached a ratio of 23 pupils per teacher. For schools between 200 and 500 enrollment the pupil-teacher ratio fluctuates around 23." (6)

Allen says in commenting on the rural high schools of Kansas:

"The teachers are thoroughly acquainted with each pupil, and study his personality and provide him with individual attention. The teachers unquestionably have greater and better opportunity to make their teaching personal and lasting." (2)

Platt, writing in the School Review, says:

"America can not afford to await the practicability of consolidation. The human waste is too great, unhappiness, vocational misplacement, and loss from undiscovered genius makes the price too great. Alternations involving a large unit, state adjustments, class combinations with individual instruction can be made without damage to the educational product. Radio may offer means of enriching the curriculum." (12)

Ferriss writes:

"The small high school is a social institution which is established, maintained, and largely controlled by the community. It is its one great co-operative enterprise." (7)

Towns writes:

"The field of the rural high school is virgin and its development calls for the pioneer, who accepts his failure with a stout heart----- The rural high school represents another of the finest attitudes in a responsible citizenship. It is that unorganized, everyday experience of contact between youth and maturity that builds into the very texture of life a ruggedness and vitality that offers a challenge to every other influence, good or bad." (16)

Cyr, writing in the Teachers Collage Record, says:

"The small school in its community has many advantages in providing an integrated curriculum closely related to the activities of the community. In Carmel, New York, a careful study of the pupils interests and needs is made, and then community resources are used to develop and meet them. A local banker teaches a course in practical accounting, at the same time a high school student goes to the bank to work two hours a week; a local artist teaches art to a high school girl, etc.." (6)



## MODERN TRENDS IN SOLVING THE PROBLEMS OF CONSOLIDATION

The action of other states in solving the problem involved in high school consolidation seems to indicate that the practical solution may come from consolidation coupled with co-ordination.

State aid for those districts willing to consolidate is found in some states. Minnesota offers aid depending on the degree of consolidation on a graduated scale to \$1500 per year for each district consolidating. Minnesota also grants building aid, direct from the state treasury. As early as 1919, Pennsylvania paid \$200 annually for each school consolidated and reimbursed the district in one-half the amount spent for transportation, not including purchase and repair of vehicle, spent during the previous year (3). New York pays one-half the transportation costs by state aid for approved centralized schools, and building aid to the extent of one-fourth the amount expended (8).

Other states are relying on the idea of more complete centralization by sponsoring the development of one county high school. California uses successfully the union high school idea, which combines several districts into one. Another satisfactory plan provides one central school with other branch schools, which are co-ordinated and supervised

by the central school. Montana with its very sparse and greatly scattered population, sponsors consolidation by providing dormitories and boarding places for the students in the outlying territory (8). County staffs containing subject matter specialists, are found in some states. Nebraska uses a plan of co-ordinating the University with the local schools in providing individual instruction material and correspondence study material. Massachusetts likewise furnishes correspondence courses.

The radio offers an undeveloped medium for enriching the curriculum. In 1932, Nebraska furnished courses to nineteen small high schools by radio. This field may have great possibilities but needs research and experimentation to prove its worth. Nebraska has developed a state-wide system of alternation of classes, and has an organized staff ready and willing to assist in installing such schedules. Special funds are provided in Nebraska through aid from the Carnegie Corporation to study ways of enriching the curriculum (12)

In Ohio and Maryland, circuit teachers are sometimes provided to teach music in the schools of the county (5). In Pennsylvania some counties employ county supervisors of agriculture and home economics, who are in reality circuit teachers serving as many as eight schools and 170 pupils (5).

In Columbia County, Pennsylvania, two schools twenty-four miles apart have employed a teacher of vocational agriculture and a teacher of home economics together. They go to one school in the morning and to the other in the afternoon (5).

A plan outlined by Winder, using the county as a basis, suggests a county director, a county staff of subject matter specialists for each field, a good man to head each school with a small teaching staff and a secretary-librarian in each school. The specialists would prepare the work for individual instruction, job assignment or contract plan, then they would visit each school regularly and supervise the school teaching staff in handling the work (19).

In conclusion, it might be said that some of the desired results of consolidation may come from (1) county co-ordination, (2) itinerant teachers, (3) correspondence courses, (4) subject matter specialists, producing and then supervising the courses for the school, (5) radio, (6) state-wide system of class alternation, and (7) creating a special department of the office of State Superintendent for the study of school consolidation and co-ordination.

## PART I

A SURVEY OF THE PRESENT HIGH SCHOOL SYSTEM OF  
JEWELL COUNTY FROM 1929-1933

## Present Organization of Districts

Jewell County has twelve high schools, six rural high schools, five city high schools, and one, Northbranch Academy, which is a Friends tuitional school. Since the academy is not a public high school and probably will continue to exist regardless of new plans, information concerning it will not be presented.

The organization and present status of these schools is typical of the story of the evolution of secondary education in Kansas. The first high schools were the town schools. Later came the rural high schools with the conversion of some of the town schools into the rural high school type.

The high schools at Jewell City, Lovewell, Randall, Ionia, Athens, and Montrose are rural high schools while Hankato, Esbon, Burr Oak, Formoso, and Webber are pure representatives of the extension of the town graded schools to include secondary education. Naturally the date of organization of the six rural high schools was later than 1911, which is the date of the first legislation permitting the organization of that type of high school. Athens was

organised first in 1916, and the five others were organised in the period from 1920 to 1924.

The first law permitting the organisation of rural high schools required that the new rural high school district should have a valuation of at least two million dollars. Later the requirement was changed by substituting an area requirement of 16 square miles for the valuation requirement. The present law permits districts with valuations of two million dollars or more to organise as rural high school districts. The present law also provides that new rural high school districts, having a valuation of one and one-fourth million dollars, may be organised in counties that have a population of 18,000 to 20,000 people and a total valuation of from 45 to 50 million dollars. However, many of the town schools failed to organise, due to low valuations, higher tax levies than the surrounding territory, and the lack of genuinely interested leadership.

A study of figure 1 shows the present districts. It is interesting to note that only 370 square miles are included within the high school districts. The total county area is 900 square miles. A study of the enrollment of Mankato High School, located in the town of greatest population within the county, shows that nearly 45 per cent of the students come from the surrounding rural area. Students

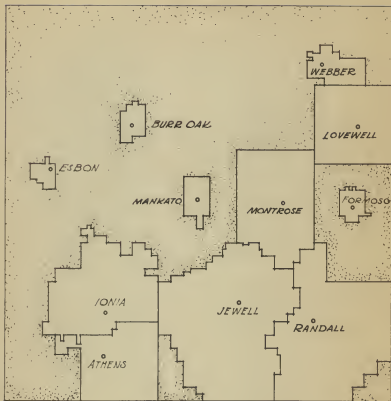
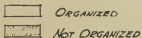


FIGURE - 1 -

A MAP SHOWING THE HIGH SCHOOL DISTRICTS OF JEWELL COUNTY KANSAS



residing outside any high school district and hence in the unorganized territory, may attend high school without paying a tuition fee. However, the school which they attend receives three dollars per week for the time they are in school. This tuition is derived from a special levy on the unorganized territory. The data in table 2 show that only two schools, namely Webber and Formoso, can offer the present educational advantages for \$108 per pupil per year.

The unorganized territory was taxed 1.5 mills in 1930 and 1.4 mills in 1931, but in 1933 the levy was increased to 2.6 mills, due to lower valuations but a constant tuition rate.

In 1933, the valuation of all the high school districts was \$15,629,360 while the valuation in the unorganized territory was \$10,908,390. The inverse relation between size and valuation of organized and unorganized area is due to the concentration of wealth in the towns.

Table 1 shows the inequality in areas of the districts resulting from different types of organization. The district areas vary from 3.5 to 90 square miles. The inequalities in valuation are naturally apparent. The mean valuation for the five-year period 1929-1933 shows variations from \$537,640 to \$4,504,827. The valuation per high school pupil varies from \$8,700 in the Esbon district to

Table 1. Showing Average Valuation, Enrollment, Tax Levy in Mills, Area, Pupil-teacher Ratio, and Classification of Each High School District in Jewell County, Based on Data Covering Five-year Period 1929-1933

School	Tax : levy : in :	Valuation :	Number : of :	Area in : sq. miles :	Pupil-teacher : ratio :	Classifi- cation :
Athens	4.7	1,251,536	41	39	10-1	C
Burr Oak	12.8	905,508	102	5.75	17-1	B
Esbon	19.4	609,600	70	3.60	18-1	B
Formoso	15.1	644,771	69	5	18-1	B
Ionias	4.0	1,693,211	57	83	14-1	C
Jewell City	4.8	4,504,827	130	90	15-1	A
Lovewell	4.7	1,664,186	82	36	13-1	B
Menkato	15.1	2,027,589	131	7.5	18-1	A
Montrose	5.6	1,717,537	35	47	8-1	B
Randall	3.4	3,136,298	76	7.4	13-1	B
Webber	8.0	537,540	39	9.5	19-1	B

\*As assigned by State Department of Education.



\$26,960 in the Jewell City area. Thus the educational burden is very unequally distributed. Tax levies in Jewell County are higher in the small areas, varying from 3.4 mills in Randall to 19.4 mills in Esbon. The levies shown for city high schools include the expense of the graded school, while rural high school levies are purely for high school purposes. This is due to the fact that the records do not show these items separately in city schools, nor can an accurate estimate be made. However, the city levies may be divided by half and still show large inequalities with the rural high school districts.

Table 1 furnishes information on enrollments, number of teachers, and the pupil-teacher ratio. All data in table 1 is the mean based on years 1929-1933 inclusive. The classification of the school, based on the standards of the State Department of Education, is furnished. Two schools are members of the North Central Association. The mean county enrollment was 806 per year for all schools. The mean number of high school teachers and principals was 56. However, there were but 49 employed during the 1933-1934 school year.

### Cost of Instruction and Annual Current Expenses in Various Schools

A study of the records shows that the average amount spent per year for instructional purposes, salary of teachers, and instructional supplies, for the entire county was \$87,058, while the average cost per year for current expenses for the county was \$117,691. The data shows that 74 per cent of the total expenses was for instruction. The average salary for high school teachers was \$1,351 and the average principal's salary was \$1,849.

Table 2 shows the annual per-pupil cost for instruction and current expenses for each of the schools. The annual per-pupil cost of instruction varies from \$71 in Webber with an enrollment of 39 pupils to \$174 in Montrose with an enrollment of 33 pupils. Webber's low cost may be charged to its being a two teacher school with the consequent narrow curriculum while Montrose's excessive per-pupil cost is due to providing four teachers for fewer pupils than Webber. One shows economy at a sacrifice of educational efficiency; the other greater educational efficiency with increased costs. The mean per-pupil cost of instruction for the entire county based on the total number of pupils and the total instructional cost was \$108. The mean annual per-pupil cost for current expenses based on the total number of pupils and total cost was \$146.

Table 2. Showing Mean Annual Per-pupil Cost of Instruction and Current Expenses with the Deviation from the Mean for each School.

The Mean Annual per-pupil Cost of Instruction was \$108; and the Mean Annual Per-pupil Cost Based on Current Expense was \$146. (+ more than

Mean; - less than Mean). Data is Based

on Years 1929-1933 Inclusive

School	Mean annual per-pupil cost of in- struction	Mean annual per-pupil cost of current expense	Deviation from mean for per- pupil cost of in- struction	Deviation from mean for per- pupil cost of current expense
Athens	\$131	\$146	+ 23	0
Burr Oak	92	121	+ 16	- 26
Esbon	119	151	+ 11	+ 8
Formoso	98	106	- 10	- 40
Ionia	99	113	- 9	- 33
Jewell City	109	126	+ 1	- 20
Lovewell	118	134	+ 10	- 12
Markato	111	148	+ 3	+ 2
Montrose	174	210	+ 66	+ 64
Randall	106	131	- 2	- 18
Webber	71	90	- 37	- 56

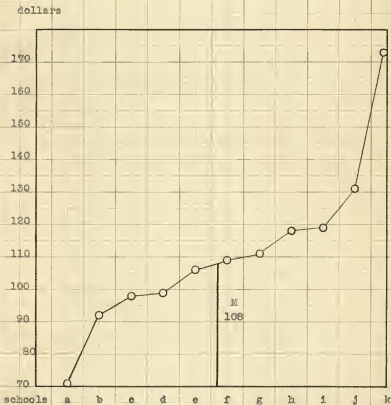


Fig. 2. Graph showing the mean annual per-pupil cost for instruction for the period 1929-33. High schools Jewell County. a, Webber; b, Burr Oak; c, Formoso; d, Ionia; e, Randall; f, Jewell City; g, Mankato; h, Lovewell; i, Esbon; j, Athens; k, Montrose.

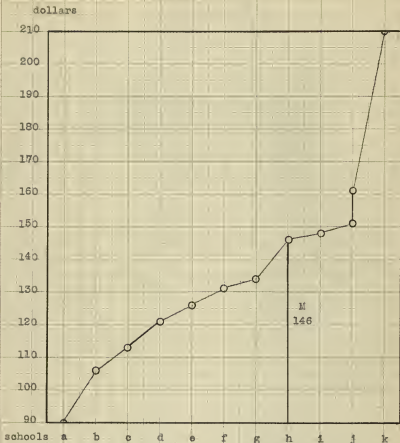


Fig. 3. Graph showing annual per-pupil cost for current expenses in the high schools of Jewell County based on the mean for the years 1929-33. a, Webber; b, Formoso; c, Ionia; d, Burr Oak; e, Jewell City; f, Randall; g, Lovewell; h, Athens; i, Mankato; j, Esbon; k, Montrose.

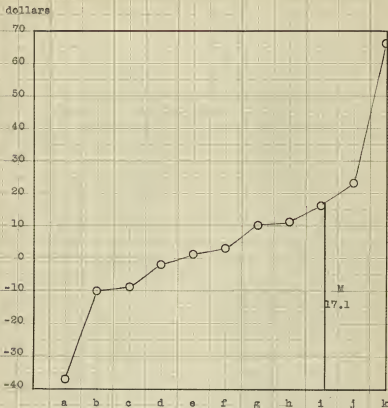


Fig. 4. Graph showing the deviation from the mean for annual per-pupil cost of instruction in the high schools of Jewell County. a, Webber; b, Formoso; c, Ionia; d, Randall; e, Jewell City; f, Mankato; g, Lovewell; h, Esbon; i, Burr Oak; j, Athens; k, Montrose.

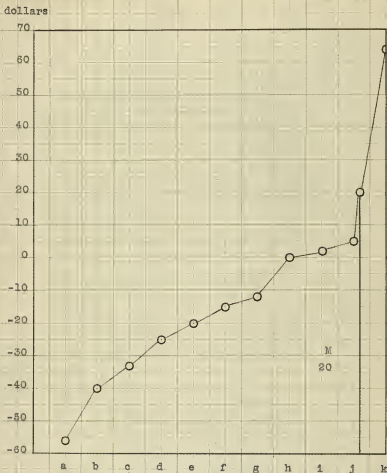


Fig. 5. Graph showing the deviation from the mean for the annual per-pupil cost based on current expenses of Jewell County. a, Webber; b, Formoso; c, Ionia; d, Burr Oak; e, Jewell; f, Randall; g, Lovewell; h, Athens; i, Mankato; j, Esbon; k, Montrose.

### The Present Curriculum of the Various Schools

Table 3 shows the various subjects offered in the eleven schools during the two years 1932-1933. It shows that the offering of the smaller schools is in the main, confined to constants and courses leading to college preparation. Agriculture, clothing and manual training are offered in at least ten of the schools. At present there is not a single school offering vocational agriculture. Two schools have recently dropped it due to two causes: namely, for the curtailment of expenses, and because of the difficulty in maintaining enrollments in that course. Jewell City has recently set up a course somewhat similar to the vocational agriculture course. Vocational homemaking as a course is not found in the entire county, and but one school offers a complete commercial course. The general offering of purely academic subjects seems to be good but in many cases limited. Fine arts have but little place in the schools and in general music consists of limited group activities. Two schools offer normal training courses and two others offer classes with the intention of helping to prepare their graduates for teaching. Two schools have physical training classes.

Table 4 shows the various activities offered and the



Table 3. Showing Subjects and Number of Schools Offering Each in the Eleven High Schools of Jewell County during the School Years 1932-33 and 1933-34

Subject	No. : :schools: :offer-: :ing :	Subject	No. : :schools: :offer-: :ing :
English I	11	Shorthand	1
English II	11	Penmanship	1
English III	11	Com'l Arith	3
English IV	4	Com'l Law	3
Algebra I	11	Latin I	8
Geometry	11	Latin II	3
Solid Geometry	1	Spanish I	1
Adv. Algebra	3	French I	1
American History	11	Food I	9
Civics and Constitution	11	Clothing I	10
World History	11	Clothing II	5
Sociology	1	Home Management	1
International Relations	1	Nursing	1
Biology	3	Health (Girls)	1
Physics	11	Manual Training I	10
General Science	10	Manual Training II	10
Agriculture	10	Farm and Home Mechanics	1
Physiology	3	Mechanical Drawing	2
Psychology	4	Art and Painting	1
Physical Geography	1	Normal Training Reviews	3
Bookkeeping (1 year)	4	Grammar	3
Bookkeeping (2 years)	1	Music Appreciation	2
Typing I	6	Physical Training	2
Typing II	4	Vocational Homemaking	0
		Vocational Agriculture	0

**Table 4. Showing Activities Offered and Number of Schools Offering Each in the High Schools of Jewell County during the School Year 1933-34**

Activity	Number of schools providing activity
Glee Clubs	11
Hi-Y Clubs	3
G. R. Clubs	6
Dramatic Club	1
Basket ball (boys)	11
Football	3
Track	5
School paper	5
Orchestra	5
Band	5
Annual	0
Debating	0
Tennis	8
National Honor Society	1
Intramurals (boys)	2
Intramurals (girls)	4
Baseball (girls)	7
Home Room	1

number of schools offering them, taken from the reports on file in the office of the State Superintendent of Public Instruction. All schools provide boys basketball and glee clubs. Seven schools provide girls basketball. There is only one school offering the advantages of a home room. There are no debating, no annuals, but there are three Hi-Y clubs and five school papers.

The largest number of the listed activities is offered at Jewell City. That school offers 14 of the 15 activities

found in table 4. Seven schools offer less than half the number of activities in the list. One school offers but four activities, two others offer but five and three offer but six.

If we are correct in assuming educational and socializing values for extra-curricular activities, it would seem that if larger numbers were enrolled in the smaller schools, the extra-curricular advantages might be improved.

#### Teacher Training and Tenure

In 1933 there were 49 teachers and principals in the eleven high schools. They had an average of seven years teaching experience and a tenure of four years in their present positions. Fourteen were in their present position without previous teaching experience. Nineteen have taught more than eight years without completing work for a masters degree. Among the 49 teachers, there are five holding masters degrees; however, many others have earned a few hours of graduate work. This indicates that many of the present teachers have failed to make additional preparation for their profession.

### Concerning the Present Buildings and Roads

There are but two modern, well equipped high school buildings in the county. Four or five communities are in real need of new buildings. One rural high school building is an enlarged rural church or rural school, three and one-half miles from the nearest village. Many of the communities realize the need for better buildings but their small valuation and already high tax levies prohibit it. Any plan of consolidation that might be proposed would be confronted with a real building problem if schools of real educational merit were to be developed. Other information concerning the buildings has been collected but it is of little consequence in the following proposal. The solution of the building problem itself is of great magnitude but it will be left for others to consider.

Figure 6 shows the road situation. A glance reveals that consolidation must go hand in hand with all-weather road construction. The present road system would have to be improved and adapted to fit any scheme of centralization.

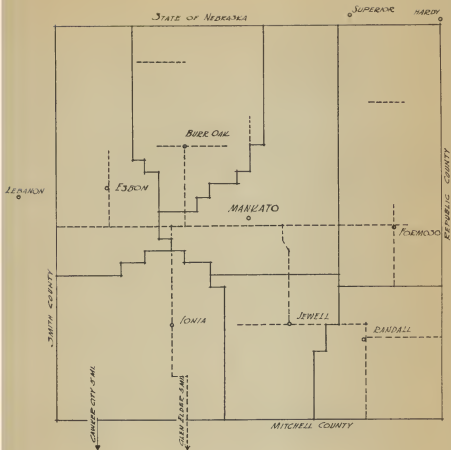


FIGURE 6 ---

A MAP OF JEWELL COUNTY KANSAS SHOWING PROPOSED DISTRICTS, PRESENT ALL WEATHER ROADS AND LOCATION OF SEVERAL SCHOOLS IN ADJOINING COUNTIES.

----- ALL WEATHER ROADS

———— BOUNDARY LINES

## PART II

AN ENRICHED CURRICULUM FOR HIGH SCHOOLS IN RURAL  
AREAS OF KANSAS

If the specific function of the high school is five-fold; namely, preparation for college entrance, preparation for a vocation to be entered at the completion of high school, preparation for enlightened citizenship, the development and maintenance of one's physical powers and health, and the development of avocational and cultural interests, it is well to visualize an ideal curriculum suitable for the needs of the high school students in small areas (16).

Naturally such a curriculum will be built in part on the college entrance requirements and the state regulations. If the high school is to function in giving the student pre-college training, it should be so organized that any student having made a decision concerning his life vocation may begin to direct his education in the proper direction. Thus it would seem that the ideal curriculum should be inclusive enough to offer opportunity for a directed college preparatory course.

If we attempt to set up a curriculum based in part on the later vocational needs it is necessary to consider the fact that the prospective major occupation of the girls of the high schools in rural areas is that of homemaking and rearing a family. The United States Census Report of 1930

shows that 64 per cent of women in rural areas fifteen years of age and over, are married. While training in efficient home management may be one of the functions of the home, it is an observed fact that the home does not offer sufficient and adequate training in this direction. Hence a properly enriched curriculum should include an organized course in homemaking.

The chief industry of the community is agriculture and from a previous study of similar areas, it has been found that four-fifths of the farmers in the community reside in the community in which they were educated. The same study shows that 49.2 per cent of the boys enrolled in vocational agriculture follow the vocation of farming. Therefore, it seems that a vocational agriculture course can be justified on the ground of vocational needs (4).

Since there is an apparent need for business training, based on the vocational needs of the students as determined by the industry of the county, courses in stenography and bookkeeping should be available.

It has long been recognized that one of the weak points in the average high school curriculum is a lack of vocational trades training and since the trend of the age is mechanical and automotive such a course as an automotive course may be justified. Although there is a tendency to do away with the normal training courses, some are demanded in Jewell County as evidenced by the fact that two high schools continue to offer such courses. Three other high

schools offer some courses in preparation for such work. In 1933 normal training work was offered to 21 students. Since the law permits graduates of the normal training course to teach, there will probably be some demand for the course in the high schools.

A curriculum suitable for the rural areas of Kansas will be outlined in the following pages. This curriculum is based on part of the senior high school curriculum developed in the City School Survey, Chanute, Kansas (16). Here it is modified to function in a four-year high school.

In this study the objectives for the high school curriculum are recognized as follows:

- (1) The development of social communication, mainly language.
- (2) The development of efficient citizenship.
- (3) The development and maintenance of one's physical powers and health.
- (4) The preparatory training for the work of vocation.
- (5) The development of avocational and cultural interests and activities.

The curriculum recognizes certain constants which have their justification in the first three objectives. These constants make up six units of the work and include the following:



Subjects	Value
Constructive English	3 units
Modern World History (1870 to present)	1 unit
American History (1789 to present)	1 unit
Problems of American Democracy	1/2 unit
Constitution	1/2 unit
Physical Training and Health Hygiene (all 4 years)	No credit
	<hr/> 6 units

Six other units of the high school course are allotted to group electives, which are of two kinds, (a) vocational and (b) pre-professional. The vocational group electives are as follows:

(a) Vocational group electives offering courses in:

1. Bookkeeping
2. Commerce
3. Normal Training
4. Vocational Agriculture
5. Vocational Homemaking
6. Automotive Trades

The pre-professional group electives are as follows:

(b) Pre-professional group electives preparing for:

1. Engineering
2. Medicine
3. Law

#### 4. Business Administration

#### 5. Teaching or Ministry

The remaining four units of the student's course consist of free electives, or those subjects which the student would pursue with avocational, cultural, or natural interest.

This curriculum would require the student's course to be made up of the constants, (six units), one of the elective groups, (six units), determined by his own choice, and four units of free electives.

The subject composition of the group electives is as follows:

#### Vocational Group Electives

##### 1. Bookkeeping:

Subjects	Value
General Science	1 unit
Commercial Arithmetic	1/2 unit
Commercial Geography	1/2 unit
Penmanship	1/2 unit
Typing	1 unit
Commercial Law	1/2 unit
Bookkeeping	2 units
	<hr/> 6 units

## 2. Commerce:

Subjects	Value
General Science	1 unit
Commercial Arithmetic	1/2 unit
Commercial Geography	1/2 unit
Penmanship	1/2 unit
Typewriting	1 1/2 units
Shorthand	1 1/2 units
Office Practice	1/2 unit
	<hr/>
	6 units

## 3. Normal Training:

Subjects	Value
General Science	1 unit
Agriculture	1 unit
Physica	1 unit
Geography	1/2 unit
Grammar and Composition	1/2 unit
Reading and Literature	1/2 unit
Psychology	1/2 unit
Methods and Management	1/2 unit
	<hr/>
	6 units

## 4. Vocational Agriculture:

Subjects	Value
Crop, Livestock Production, and Shop	4 units
Biology	1 unit
Physics	<u>1 unit</u>
	6 units

## 5. Vocational Homemaking:

Subjects	Value
Related Science	1/2 unit
Foods and Homemaking	1/2 unit
Clothing I	1/2 unit
Related Arts	1/2 unit
Home Nursing	1/2 unit
Foods II	1/2 unit
Related Science II	1/2 unit
Clothing II and Child Care	1/2 unit
Household Physics	1 unit
Bookkeeping	<u>1 unit</u>
	6 units

## 6. Automotive Trades:

Subjects	Value
General Science	1 unit
General Shop Mathematics	1 unit
Mechanical Drawing	1 unit

Subjects	Value
Woodworking	1 unit
Auto Mechanics	1 unit
Practical Electricity	1/2 unit
Machine Shop Practice	1/2 unit
	<hr/> 6 units

### Pre-professional Group Electives

#### 1. Engineering:

Subjects	Value
Mathematics	3 units
Spanish	2 units
Physics	1 unit
	<hr/> 6 units

#### 2. Medicine:

Subjects	Value
Mathematics	2 units
Latin	2 units
Biology	1 unit
Physics or Chemistry	1 unit
	<hr/> 6 units

#### 3. Law:

Subjects	Value
Mathematics	2 units
Biology	1 unit
Latin	2 units

Subjects	Value
Ancient History	1/2 unit
English History	1/2 unit
	<hr/> 6 units

#### 4. Business Administration:

Subjects	Value
Mathematics	1 unit
Spanish	2 units
English History	1 unit
Physics or Chemistry	1 unit
Bookkeeping	1 unit
	<hr/> 6 units

#### 5. Teaching or Ministry:

Subjects	Value
Mathematics	2 units
Foreign Language	2 units
Physics, Biology, or Chemistry	1 unit
English or Modern European History	1/2 unit
Sociology	1/2 unit
	<hr/> 6 units

Any subject not in a particular group, as constant or group electives, but listed in some other group would be a free elective for those in a particular group. A suggested list of free electives is as follows:

Subjects	Value
Ancient and Medieval History	1 unit
Modern European History before 1914	1 unit
English History	1 unit
Economics	1/2 unit
English Literature	1 unit
American Literature	1 unit
European Literature	1 unit
Spanish	1 to 2 units
Latin	1 to 2 units
Biology	1 unit
Physics	1 unit
Chemistry	1 unit
Pennmanship	1 unit
Industrial Art	1 unit
Painting	1 unit
Dramatics	1/2 unit
Chorus	1/2 unit
Glee Club	1/2 unit
Music Appreciation	1/2 unit
Instrumental music	1 to 3 units
Band and Orchestra	1/2 unit
Others may be added.	

This curriculum is to be used as a basis for the proposed curricula found in Part III. It cannot be completely

accepted due to the great number of subjects involved. However, the basic parts will be used and should serve to produce an enriched curriculum for the high schools of Jewell County. It is to be contended that even a limited curriculum, available to all the students and based on their real needs, will be an advantage over the present situation.



### PART III

#### THE PROPOSED PLAN FOR CONSOLIDATING SOME OF THE HIGH SCHOOLS OF JEWELL COUNTY

##### Basis for the Proposed Plan

From the study of Part I and Part II it is apparent that the present situation is not in harmony with the educational needs of the county. Thus it becomes fitting to propose a plan of betterment.

The plan to be proposed is based on the belief that more practical and satisfying results can be obtained by not removing too many of the schools from their present locations, but by the development of school co-ordination and co-operation.

Some of the arguments in favor of such a plan would be as follows:

- (1) High school consolidation in Kansas is opposite to the general trend for the past quarter of a century.
- (2) It is contrary to human nature to expect fair sized communities to give up their established school and hence impractical.
- (3) The primary reason for consolidation is not to promote greater economy but to provide better edu-

ational advantages to small schools, through enriched curricula and to do it as economically as possible.

- (4) High school consolidation carried to extreme may destroy an educational opportunity hitherto undeveloped and found in the small high schools alone, by virtue of their smallness.
- (5) There may be advantages in the small schools such as pupil-teacher contacts that cannot be duplicated in larger groups.
- (6) Many of the results of consolidation can be attained in good measure by other means.
- (7) Where there are very large units developed, consolidation may destroy the sociological value of the school in the community.

#### Plan of Re-districting the County

It is proposed that four of the smaller high schools be disorganized, and their students transported by bus to other schools. The schools that would be disorganized are Athens, Webber, Lovewell, and Montrose. The students now attending the Webber and Lovewell schools would be transported to Formoso. The Montrose district would be disorganized and the pupils divided between Mankato and For-

mose. This division would be determined by allowing the pupils to attend the school that is nearer their respective homes. The students at Athens would be conveyed to Ionia and attend school there. The remaining schools would continue to exist in their present locations, but their district boundaries would be changed so that each district would contain the territory nearest its school. Figure 6 shows the seven proposed districts. The map also shows the location of other schools in the adjoining territory that would affect the re-districting.

Accordingly, each district will be served with a fairly well located school except the northern part of the Mankato and Formosa districts. At the present time there are schools at Superior and Hardy, Nebraska, near the state line that serve some Kansas students and naturally they will continue to serve the northeast territory of Jewell County.

Table 5. Showing the Prospective Enrollment, Valuation, and Area of the Proposed Districts

School	Enrollment	Valuation	Area in square miles
Jewell City	130	\$4,304,335	98
Randall	76	2,465,610	92
Burr Oak	102	4,117,676	120
Esbon	70	3,429,354	127
Mankato	157	4,293,927	151
Ionia	97	3,617,290	152
Formoso	150	4,403,005	160

The Plan for Six Branch Schools and  
One Central School

It is proposed to develop the seven schools as six branch schools and one central school. The central school might be located at any one of several towns but the most logical town for its location is Mankato. Figure 6 shows that Mankato is centrally located in the county and the road system is already developed to facilitate such action. In accordance with the proposed plan, the six branch schools would establish courses offering four years work in (1) college preparatory, (2) vocational agriculture, and (3) vocational homemaking. They would also establish the ninth and tenth years work in (1) normal training, (2) auto mechanics, and (3) commerce, (a) bookkeeping, (b) stenography.

The central school would maintain full four years work

in all of the six courses. This would mean that all students would attend the school of their respective districts for the work of their ninth and tenth years. Those students in the college preparatory, vocational agriculture, and vocational homemaking courses would finish their four year course in the school of their own district, while those completing the normal training, auto mechanics, and commerce courses would be transported to the central school for the work of their eleventh and twelfth years. While it would be impossible to organize and offer all the subjects of the college preparatory course as described in Part II, alternations and variations might be worked out so that the schools could offer what the students demand. More usable correspondence courses might offer a way to provide more courses in the college preparatory course as offered in the branch schools.

#### Proposed Curriculum for the High Schools of the County

A curriculum, based on Part II, could be arranged, placing the subjects in the proper years, making it possible to follow the scheme of having six branch schools and one central school as previously proposed. Such an arrangement would make all six courses available to every student in the county. The following set-up represents the courses

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by years. However, as previously explained, the branch schools would not offer subjects included in the work of the eleventh and twelfth years in normal training, commerce, bookkeeping, and auto mechanics. In some of the courses, the number of free electives would be fewer than four units. In such cases, some other subject closely related to the course has been placed in the course.

#### Proposed Curriculum for High Schools

##### College Preparatory

##### Ninth Year

First Semester	Second Semester
English	English
Algebra	Algebra
World History	World History
Elective	Elective

##### Tenth Year

First Semester	Second Semester
English	English
Latin I	Latin I
Geometry	Geometry
Elective	Elective

## Eleventh Year

First Semester	Second Semester
English	English
Constitution	Civics
Latin II	Latin II
Biology	Biology

## Twelfth Year

First Semester	Second Semester
American History	American History
Physics	Physics
Two Electives	Two Electives

## Vocational Agriculture

## Ninth Year

Livestock Production	2 units
Farm Shop Work	
English	1 unit
World History	1 unit

## Tenth Year

Crop Production and Soils Management	2 units
Farm Shop	
English	1 unit
Elective	1 unit

### Eleventh Year

First Semester	Second Semester
English	English
Constitution	Civics
Biology	Biology
Elective	Elective

### Twelfth Year

First Semester	Second Semester
American History	American History
Physics	Physics
Two Electives	Two Electives

### Vocational Homemaking

#### Ninth Year

First Semester	Second Semester
Vocational Homemaking I	Vocational Homemaking I
English	English
World History	World History

#### Tenth Year

First Semester	Second Semester
Vocational Homemaking II	Vocational Homemaking II
English	English
Elective	Elective



### Eleventh Year

First Semester	Second Semester
English	English
Constitution	Civics
Biology	Biology
Elective	Elective

### Twelfth Year

First Semester	Second Semester
American History	American History
Physics	Physics
Two Electives	Two Electives

Normal Training Course  
(Eleventh and twelfth years work offered in  
central school only)

### Ninth Year

First Semester	Second Semester
English	English
Algebra	Algebra
Two Electives	Two Electives

### Tenth Year

First Semester	Second Semester
English	English
Geometry	Geometry
Biology	Biology
Elective	Elective

### Eleventh Year

First Semester	Second Semester
English	English
Physiology	Elective
Constitution	Civics
Agriculture	Agriculture

### Twelfth Year

First Semester	Second Semester
American History	American History
Psychology	Methods and Management
Geography	Arithmetic
Grammar	Reading

Commerce Course (Bookkeeping)  
(Eleventh and twelfth years work offered in  
central school only)

### Ninth Year

First Semester	Second Semester
English	English
World History	World History
General Science	General Science
Elective	Elective

### Tenth Year

First Semester	Second Semester
English	English
Commercial Arithmetic	Commercial Geography

Bookkeeping I

Penmanship

Bookkeeping I

Elective

## Eleventh Year

## First Semester

English

Constitution

Bookkeeping II

Typing I

## Second Semester

English

Civics

Elective

Typing I

## Twelfth Year

## First Semester

American History

Elective

Commercial Law

Elective

## Second Semester

American History

Elective

Elective

Elective

Commerce Course (Stenography)  
(Eleventh and twelfth years work offered in  
central school only)

Ninth and Tenth Years Work as Prescribed in  
Bookkeeping Course

## Eleventh Year

## First Semester

English

Constitution

Typing I

Stenography I

## Second Semester

English

Civics

Typing I

Stenography II

### Twelfth Year

First Semester	Second Semester
American History	American History
Stenography III	Office Practice
Typing II	Two Electives
Elective	

Auto Mechanics  
(Eleventh and twelfth years work offered in  
central school only)

### Ninth Year

First Semester	Second Semester
English	English
Algebra	Algebra
Woodworking	Woodworking
General Science	General Science

### Tenth Year

First Semester	Second Semester
English	English
World History	World History
Mechanical Drawing	Mechanical Drawing
Elective	Elective

### Eleventh Year

First Semester	Second Semester
English	English
Constitution	Civics

First Semester		Second Semester	
Auto Mechanics I		Auto Mechanics I	
Elective		Elective	
Twelfth Year			
First Semester		Second Semester	
American History		American History	
Machine Shop Practice		Practical Electricity	
Two Electives		Two Electives	

Physical training and hygiene would be required for the boys and girls in the ninth and tenth years regardless of which course they are taking.

#### The Proposed Branch Schools at Randall, Esbon, Ionia, and Burr Oak

Table 5 shows that the respective enrollments for the four schools: Randall, Esbon, Ionia, and Burr Oak would be 76, 70, 96, and 102.

Since it was desirable to know the probable size of each of the four classes in each school, a study was made of the total county enrollments for the past four years. This study revealed that the class proportions in the past have been as follows: ninth year, 29 per cent; tenth year, 26 per cent; eleventh year, 23 per cent; and twelfth year, 22 per cent. It is reasonable to assume that such propor-

tions will continue and on that assumption the probable class size in each of the schools can be estimated.

Table 6. Prospective Class Enrollments for the Four Smaller Schools at Randall, Esbon, Ionia, and Burr Oak

School	: Ninth : year	: Tenth : year	:Eleventh :year	: Twelfth : year	: Total
Randall	22	20	18	16	76
Ionia	28	24	23	22	96
Burr Oak	29	26	24	23	102
Esbon	20	18	17	15	70

Table 6 shows that the largest probable number to be expected in any class per year is 29. This signifies that one section of any subject per year will accommodate the enrollments of Randall, Esbon, Ionia, and Burr Oak. Likewise this evidence indicates that the same curriculum would be workable in all these schools. An undetermined number of eleventh and twelfth year students would go to the central school thus making those classes smaller than shown in table 6.

A curriculum for the four smaller schools could be developed from the preceding proposed curriculum as follows:

## Subjects Offered in Even Years

## Ninth Year

Subject	Value
<b>Required:</b>	
English I	1 unit
World History	1 unit
Physical Training (boys)	----
Physical Training (girls)	----
<b>Elective:</b>	
General Science	1 unit
Algebra	1 unit
Commercial Arithmetic	1/2 unit
Commercial Geography	1/2 unit
Woodworking	1 unit
Vocational Agriculture I	2 units
Vocational Homemaking I	2 units

## Tenth Year

Subject	Value
<b>Required:</b>	
English II	1 unit
Physical Training (boys)	----
Physical Training (girls)	----
<b>Elective:</b>	
Geometry	1 unit

Latin I	1 unit
General Science	1 unit
Commercial Arithmetic	1/2 unit
Commercial Geography	1/2 unit
Woodworking	1 unit
Bookkeeping	1 unit
Vocational Agriculture I	2 units
Vocational Homemaking I	2 units

#### Eleventh Year

Subject	Value
<b>Required:</b>	
English III	1 unit
Constitution and Civics	1 unit
Biology	1 unit
<b>Elective:</b>	
Latin I	1 unit
Bookkeeping	1 unit
Typing	1 unit
Free choice of any subject not previously studied.	

#### Twelfth Year

Subject	Value
<b>Required:</b>	
American History	1 unit
Physics	1 unit



**Elective:**

Sociology	1/2 unit
Economics	1/2 unit
Typing	1 unit

Free choice of any subject not previously studied.

**Subjects Offered in the Odd Years****Ninth Year**

Subject	Value
<b>Required:</b>	
English I	1 unit
World History	1 unit
Physical Training (Boys)	----
Physical Training (Girls)	----

**Elective:**

Algebra	1 unit
Penmanship	1/2 unit
Community Civics	1/2 unit
Mechanical Drawing	1 unit
Vocational Agriculture II	2 units
Vocational Homemaking II	2 units

## Tenth Year

Subject	Value
<b>Required:</b>	
English II	1 unit
Physical Training (boys)	----
Physical Training (girls)	----
<b>Elective:</b>	
Geometry	1 unit
Pennmanship	1/2 unit
Community Civics	1/2 unit
Bookkeeping	1 unit
Vocational Agriculture II	2 units
Vocational Homemaking II	2 units

## Eleventh Year

Subject	Value
<b>Required:</b>	
English III	1 unit
Constitution and Civics	1 unit
Biology	1 unit
<b>Elective:</b>	
Latin II	1 unit
Bookkeeping	1 unit
Typing I	1 unit
Free choice of any subject not previously studied.	

## Twelfth Year

Subject	Value
<b>Required:</b>	
American History	1 unit
Physics	1 unit
<b>Elective:</b>	
Sociology	1/2 unit
Economics	1/2 unit
Latin II	1 unit
Free choice of any subject not previously studied.	

Three one-half unit subjects, community civics, sociology, and economics, and another one unit subject, typing, have been added, (others might be substituted), to provide more electives. In the two year cycle, nineteen units of work would be offered not including the vocational subjects. This would indicate that the student would have some choice in his free electives. The fact that other courses are available elsewhere, lessens the effect of a limited number of free electives.

The instructional organization of each of these schools could be developed on the following basis. If two classes of physical training, freshman and sophomore boys and freshman and sophomore girls, were offered, the number of units

of work, excluding vocational agriculture and vocational homemaking, would be nineteen. This would indicate that four teachers would be necessary for these units.

In addition, each school might be allotted a half-time teacher in each of the following subjects: vocational agriculture, vocational homemaking, and music. These teachers might be exchange teachers. However, giving them a half-time teaching load from the other subjects of the school appears to be a better plan. A principal might teach three classes as well as administer the school. This would mean that five teachers and a principal could care for the school. The cost of these six teachers can be computed by using the average Jewell County salaries paid during the past five years. This results in salaries as follows: principal, \$1,849, and teachers, \$1,351. A minimum salary of \$1,800 for the vocational agriculture teacher might be used.

The itemized cost for the six teachers in each school would be as follows:

Principal	\$1,849
Vocational Agriculture Teacher	1,800
Four other teachers at \$1,351	<u>5,404</u>
Total teachers salaries	\$9,053

Part I shows that 74 per cent of the school expenditures have been for instruction and instructional supplies. Therefore, it is reasonable to assume that 70 per cent would be a fair percentage for teachers' salaries. Other studies substantiate this statement (18).

If \$9,053 is considered to be 70 per cent of the total current expenses, then the total current expenses for each school would be computed as \$12,911. The probable federal aid for the two vocational teachers would be \$700. The total current expenses for each one of the smaller branch schools could be computed as \$12,211. Likewise the combined expenses for the four schools, Randall, Burr Oak, Esbon, and Ionia would be \$48,844.

#### The Proposed Schools for Jewell City and Formoso

The schools proposed for Jewell City and Formoso would have enrollments of 130 and 150 students respectively. The class sizes would probably be as follows: for Jewell City, ninth year, 37; tenth year, 34; eleventh year, 30; and twelfth year, 29; for Formoso, ninth year, 44; tenth year, 39; eleventh year, 35; and twelfth year, 33. This indicates that two sections of several classes would be necessary in order to maintain the classes within the recommended limit of thirty students. A few classes slightly larger than

thirty might be recommended as reasonable economy. It is estimated that 30 per cent of the eleventh and twelfth year students will attend the central school.

Both of these two schools would offer essentially the same courses as outlined for the four smaller branch schools. However, the same alternations and variations would not be possible.

The following is a two-year cycle proposed for these two schools.

#### Subjects Offered in Even Years

##### Ninth Year

Subject	No. of classes	Value
<b>Required:</b>		
English I	2	1 unit
World History	2	1 unit
Physical Training (boys)	1/2	----
Physical Training (girls)	1/2	----
<b>Elective:</b>		
Algebra	1	1 unit
General Science	1	1 unit
Pennmanship	1	1/2 unit
Community Civics	1	1/2 unit
Woodworking	1	1 unit
Vocational Agriculture I	1	2 units
Vocational Homemaking I	1	2 units

## Tenth Year

Subject	No. of classes	Value
Required:		
English II	2	1 unit
Physical Training (boys)	1/2	----
Physical Training (girls)	1/2	----
Elective:		
Latin I	1	1 unit
Geometry	1	1 unit
Commercial Arithmetic	1	1/2 unit
Commercial Geography	1	1/2 unit
Woodworking	1	1 unit
Bookkeeping	1	1 unit
Vocational Agriculture II	1	2 units
Vocational Homemaking II	1	2 units

## Eleventh Year

Subject	No. of classes	Value
Required:		
English III	1	1 unit
Constitution and Civics	1	1 unit
Biology	1	1 unit
Electives:		
Bookkeeping I		1 unit
Latin I		1 unit

Typing I	1	1 unit
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Free choice of any subject in ninth or tenth years  
not previously studied.

#### Twelfth Year

Subject	No. of classes	Value
<b>Required:</b>		
American History	1	1 unit
Physics	1	1 unit

#### Elective:

Bookkeeping I		1 unit
Sociology	1	1/2 unit
Economics	1	1/2 unit
Typing I	1	1 unit

Free choice of any subject not previously studied.

#### Subjects Offered in the Odd Years

##### Ninth Year

Subject	No. of classes	Value
<b>Required:</b>		
English I	2	1 unit
World History	2	1 unit
Physical Training (boys)	1/2	----
Physical Training (girls)	1/2	----



**Elective:**

Algebra	1	1 unit
General Science	1	1 unit
Penmanship	1	1/2 unit
Community	1	1/2 unit
Mechanical Drawing	1	1 unit
Vocational Agriculture I	1	2 units
Vocational Homemaking I	1	2 units

**Tenth Year**

Subject	No. of classes	Value
<b>Required:</b>		
English II	2	1 unit
Physical Training (boys)	1/2	----
Physical Training (girls)	1/2	----

**Elective:**

Geometry	1	1 unit
Commercial Arithmetic	1	1/2 unit
Commercial Geography	1	1/2 unit
Mechanical Drawing		1 unit
Bookkeeping	1	1 unit
Vocational Agriculture II	1	2 units
Vocational Homemaking II	1	2 units

## Eleventh Year

Subject	No. of classes	Value
<b>Required:</b>		
English III	1	1 unit
Constitution and Civics	1	1 unit
Biology	1	1 unit
<b>Electives:</b>		
Bookkeeping I		1 unit
Latin II		1 unit
Typing I		1 unit
Free choice of any subject in ninth and tenth years not previously studied.		

## Twelfth Year

Subject	No. of classes	Value
<b>Required:</b>		
American History	1	1 unit
Physics	1	1 unit
<b>Electives:</b>		
Bookkeeping I		1 unit
Sociology	1	1/2 unit
Economics	1	1/2 unit
Typing I	1	1 unit
Latin II	1	1 unit
Free choice of any subject not previously studied.		

This curriculum would provide eighteen different units of work not including vocational homemaking, vocational agriculture, and music. Two and one-half units have been added to the prescribed course in order to provide nine electives.

The number of teaching units could be determined by this method: allow one teacher each for vocational agriculture and vocational homemaking, and a half-time teacher for music. Consider that the principal would teach a half day schedule. This would leave twenty other class units per year to be taught. Thus it would require four teachers to care for these twenty class units.

A summary of the necessary teaching staff and its cost for each of the schools, Jewell City and Formoso, follows:

Principal (teaching half-time)	\$1,849
Vocational Agriculture	1,800
Five and a half other teachers	7,430.50
at \$1,351	

---

Total annual salary for 7.5 teachers \$11,079.50

The half-time music teacher might be an exchange teacher or serve half time in the grades. The high schools in these towns use half time music teachers at the present time.

As was previously explained, the total annual current

expenses might be computed using \$11,079.50 as 70 per cent of the total current expenses. Accordingly the total current expenses for each of the schools at Jewell City and Formoso would be \$15,802. The probable federal aid for the vocational courses would be \$1,400 for each school, which leaves the net total current expenses to be derived from county taxes as \$14,402 for each school.

#### The Central School at Mankato

Since the central school proposed for Mankato varies greatly from any of the present types, it is difficult to secure accurate information concerning the probable number that would be enrolled in the eleventh and twelfth years of the commerce, auto mechanics, and normal training courses. However, estimates can be derived from the available sources and allowances made for the maximum probable enrollment.

The probable enrollment from its own district would be 157 pupils. They would be distributed as follows: ninth year, 44; tenth year, 41; eleventh year, 36; and twelfth year, 34.

In addition, some other students from the six branch schools would attend this school during their eleventh and twelfth years. The number of these students can be ap-

proximated by the following method. The total number of the eleventh and twelfth year students in the six branch schools total 154 and 143 respectively. A part of this number would be interested in continuing the commerce, normal training, and auto mechanics courses. In 1933, 21 were enrolled in normal training. It is reasonable to assume that an equal number would continue to demand such a course, and therefore, provisions should be made to handle that number. This would leave 140 eleventh year students and 133 twelfth year students in the six branch schools. Some of these remaining students would be interested in the commerce and auto mechanics courses. Considering the present interest at Mankato as an index, it is reasonable to assume that not over 21 per cent of the remaining students would be interested in continuing the commerce course. Using this as a basis, the enrollment in the eleventh year would increase by forty students and in the twelfth year by thirty-six students.

There is no way to estimate the number of boys desiring the auto mechanics course under the proposed conditions but it is reasonable to assume that thirty boys would enroll. This would increase the enrollment at each class by fifteen students.

On these assumptions, the probable enrollment by

classes in the Mankato school would be as follows: ninth year, 44; tenth year, 41; eleventh year, 112; and twelfth year, 106.

### Proposed Curriculum for the Mankato School

#### Subjects Offered in Even Years

##### Ninth Year

Subject	No. of classes	Value
<b>Required:</b>		
English I	2	1 unit
World History	2	1 unit
Physical Training (boys)	1	----
Physical Training (girls)	1	----
<b>Elective:</b>		
Algebra	1	1 unit
Woodworking	1	1 unit
General Science	1	1 unit
Penmanship	1	1/2 unit
Community Civics	1	1/2 unit
Vocational Agriculture I	1	2 units
Vocational Homemaking I	1	2 units

##### Tenth Year

Subject	No. of classes	Value
<b>Required:</b>		
English II	2	1 unit

Physical Training (boys)	1	----
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Physical Training (girls)	1	----
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**Electives:**

Latin I	1	1 unit
Geometry	1	1 unit
Penmanship		1/2 unit
Community Civics		1/2 unit
Agriculture	1	1 unit
Woodworking	1	1 unit
Vocational Agriculture II	1	2 units
Vocational Homemaking II	1	2 units.

**Eleventh Year**

Subject	No. of classes	Value
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**Required:**

English III	4	1 unit
Constitution and Civics	4	1 unit

**Electives:**

Latin II	1	1 unit
Biology	1	1 unit
Agriculture	1	1 unit
Physiology (1st semester)	1	1/2 unit

**Twelfth Year**

Subject	No. of classes	Value
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**Required:**

American History	4	1 unit
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Physics	3	1 unit
Electives:		
Latin II		1 unit
Psychology (1st semester)	1	1/2 unit
Geography (1st semester)	1	1/2 unit
Methods and Management (2nd semester)	1	1/2 unit
Arithmetic (2nd semester)	1	1/2 unit
Reading (2nd semester)	1	1/2 unit
Bookkeeping III (1st semester)	2	1/2 unit
Typing III (1st semester)	1	1/2 unit
Commercial Law (1st semester)	1	1/2 unit
Stenography III (1st semester)	1	1/2 unit
Office Practice (2nd semester)	1	1/2 unit
Machine Shop Practice (1st semester)	1	1/2 unit
Practical Electricity (2nd semester)	1	1/2 unit
Grammar (1st semester)	1	1/2 unit
Sociology (2nd semester)	1	1/2 unit
Economics (2nd semester)	1	1/2 unit



## Subjects Offered in the Odd Years

## Ninth Year

Subject	No. of classes	Value
Required:		
English I	2	1 unit
World History	2	1 unit
Physical Training (boys)	1	----
Physical Training (girls)	1	----
Electives:		
Algebra	1	1 unit
General Science	1	1 unit
Commercial Arithmetic	1	1/2 unit
Commercial Geography	1	1/2 unit
Woodworking	1	1 unit
Mechanical Drawing	1	1 unit
Vocational Agriculture I	1	2 units
Vocational Homemaking I	1	2 units.

## Tenth Year

Subject	No. of classes	Value
Required:		
English II	2	1 unit
Physical Training (boys)	1	----
Physical Training (girls)	1	----

**Electives:**

Geometry	1	1 unit
Latin I	1	1 unit
Commercial Arithmetic		1/2 unit
Commercial Geography		1/2 unit
Mechanical Drawing		1 unit
Woodworking		1 unit
Agriculture	1	1 unit
Vocational Agriculture II	1	2 units
Vocational Homemaking II	1	2 units

**Eleventh Year**

Subject	No. of classes	Value
<b>Required:</b>		
English III	4	1 unit
Constitution and Civics	4	1 unit
<b>Electives:</b>		
Latin II	1	1 unit
Physiology (1st semester)	1	1/2 unit
Agriculture		1 unit
Biology	3	1 unit
Bookkeeping I	1	1 unit
Typing I	2	1 unit
Stenography	2	1 unit
Auto Mechanics	1	1 unit

## Twelfth Year

Subject	No. of classes	Value
<b>Required:</b>		
American History	4	1 unit
Physics	3	1 unit
<b>Electives:</b>		
Psychology (1st semester)	1	1/2 unit
Geography (1st semester)	1	1/2 unit
Grammar (1st semester)	1	1/2 unit
Methods and Management (2nd semester)	1	1/2 unit
Arithmetic (2nd semester)	1	1/2 unit
Reading (2nd semester)	1	1/2 unit
Bookkeeping III (1st semester)	2	1/2 unit
Typing III (1st semester)	1	1/2 unit
Commercial Law (1st semester)	1	1/2 unit
Stenography III (1st semester)	2	1/2 unit
Office Practice (2nd semester)	2	1/2 unit
Machine Shop Practice (2nd semester)	1	1/2 unit
Practical Electricity (1st semester)	1	1/2 unit
Sociology (2nd semester)	1	1/2 unit
Economics (2nd semester)	1	1/2 unit

Estimating the probable number of classes per year required in each of these subjects by using the enrollments as previously estimated, indicates that fifty-five class units per year, not including the vocational agriculture, vocational homemaking, or music classes, would be ample to provide for all the students.

From this information the number of teachers necessary to care for this school can be estimated as fourteen. This would include full-time teachers of music, vocational agriculture, and vocational homemaking. If the school were provided with a full-time principal, the total teaching staff would be fifteen. This would be a fair estimate since it gives a pupil-teacher ratio of 22 to 1.

The school at Mankato would be a larger school than any of the present schools, therefore, it would be necessary to determine a suitable salary for the principal. During the past five years the average salaries for high school principals in ten Kansas high schools of similar size, located in the same part of the state as the proposed Mankato school, indicates that \$2,280 would be a reasonable salary for the principal of this school. The instructional cost would be computed on the following schedule: principal, \$2,280; vocational agriculture teacher, \$1,800; thirteen other teachers, \$1,351. Summary of instructional cost in

the Mankato school:

Principal	\$2,280
Vocational Agriculture Teacher	1,800
Thirteen Other Teachers at \$1,351	<u>17,563</u>
Total Cost for 15 Teachers	\$21,643

Considering \$21,643 at 70 per cent of the total current expenses, it would be possible to compute the total current expenses as \$30,918. After deducting the probable federal aid of \$1,400 for vocational work, the total annual current expenses for the district would be \$29,518.

#### Information Concerning Transportation under the Proposed Plan

The proposed plan involves transporting all the students from the four abandoned schools to the same six branch schools and also transporting part of the students from the six branch schools to the central school. For practical reasons the plan proposes to gather the students at the schools rather than attempt to gather them at their homes. It is proposed to provide buses with a capacity for thirty-five students and on this basis, nine buses would be required.

From a previous study it has been found that such transportation could be provided for 8.5 cents per mile plus the cost of the driver (14). This figure includes the

cost of gasoline, oil, repair and general upkeep of the vehicle. It is reasonable to assume that a driver, perhaps a high school senior, could be obtained for one dollar per day.

The following table summarizes the transportation cost but does not include the drivers' salaries.

Table 7. Showing Route, Daily and Yearly Mileage, and Total Yearly Cost for Each Bus, Not Including the Drivers' Salaries

Bus No.	From	To	Daily mileage round trip	Annual mileage	Annual cost
1	Montrose	Mankato	13	2340	\$198.90
2	Ionia	Mankato via Jewell City	38	6840	581.40
3	Esbon	Mankato via Burr Oak	40	7200	612.00
4	Randall	Mankato	38	6840	581.40
5	Formoso	Mankato	22	3960	336.60
6	Webber	Formoso	25	4500	382.50
7	Webber	Formoso via Lovewell	29	5220	443.70
8	Lovewell	Formoso	13	2340	198.90
9	Athens	Ionia	7	1260	107.10
Totals			225	40,500	\$3442.50

The cost of nine drivers could be computed as follows: the number of school days (180) times the cost per driver per day (\$1) times the number of drivers (9). This shows the cost of the drivers to be \$1,620. Therefore, the total cost for transportation would be \$5,062.50 per year.

#### Comparative Costs of the Present and Proposed Plans

The expenses of the proposed seven schools are summarized in the following table.

Table 8. Showing the Annual Instructional Expenses and the Annual Current Expenses for Each School, Not Including Cost of Transportation

School	Annual instructional expenses	Annual current expenses not including trans- portation
Esbon	\$8,353.00	\$12,211
Burr Oak	8,353.00	12,211
Randall	8,353.00	12,211
Ionia	8,353.00	12,211
Jewell City	10,679.50	14,402
Formoso	10,679.50	14,402
Mankato	20,243.00	29,518
Total	\$75,014.00	\$105,166

The cost of transportation for the entire county would be \$5,062.50. Accordingly the total annual current expenses for all seven schools would be \$110,228.50.

Table 9. Showing the Comparative Costs of the Present and Proposed Plans

	Total annual instructional expense	Total annual current expenses	Annual per-pupil cost of instruction	Annual per-pupil cost based on current expenses
Present plan	\$87,058	\$117,691.00	\$108	\$146
Proposed plan	\$75,014	\$110,228.50	\$ 93	\$137

Table 9 shows the possible savings to the county taxpayer under the proposed plan. Instructional costs would be reduced \$15 per student, and the current expenses would be reduced \$9 per student. Each year the total net savings would be \$7,462.50.

#### Organization for Administering the Plan

Since the plan has as its foundation the co-operation and co-ordination of all the high schools of the county, its success would be based on unifying the educational efforts of the separate schools. This would mean radical changes in the present plan of organization. The following plan involving a new administrative unit is suggested.

(1) One board would be created to serve as a county high



school board for all the high schools of the county. It would be composed of one person elected by popular vote from each of the seven proposed districts. (If the elementary schools were sufficiently unified, they might be represented on this board and the one board serve both types of schools) The duties of this board would consist of the present day duties of such boards, except they would strive to employ all the means of co-ordinating the schools, such as, exchange, part-time, and circuit teachers, pupil transportation, centralization of the courses, and better use of correspondence courses. They would have jurisdiction over all the high schools of the county.

(2) The executive officer of the board would be the County Superintendent whose qualifications and salary would be increased to secure a person qualified for such a task. One of the important tasks of the County Superintendent would be to organize the teachers of the county into groups, based on their ability and interest in devising a county-wide curriculum in each subject. These groups would serve as subject matter specialists and prepare the material into its most teachable form. Each school will be headed by a principal. (3) Secondary education would be considered a county function and its expense would be based on the assessed county valuation of the entire county. (4) The

proposed districts would serve these functions; as a basis for electing a board member, as a basis for determining the attendance district for the branch schools.

### The Legal Aspects of the Plan

Since the proposed plan would be a new and untried idea for Kansas, it would be necessary to investigate the present school laws and propose new legislation for the purpose of legalizing and facilitating the installation of the plan.

The present school laws of Kansas provide for three types of county high school organization: Barnes law, community, and tuition county types, (also several special county district organizations). Jewell County is one of the thirty-nine tuition counties.

The proposed plan would not function well under the present county organization as it would be very difficult to bring the unorganized territory with a small tax levy into districts with higher tax levies. Nor would it function as a Barnes law county due to the difficulties of a satisfactory division of expenses between the branch and central schools. Likewise more difficulty would arise pertaining to new buildings and equipment.

The proposed county organization which is needed would

not be legal under the existing school laws. Therefore, it would be necessary to enact other laws, making it possible to establish a co-ordinating county high school system. Such legislation would make it possible for the legal voters of the county to vote, as a county, on the proposition of dissolving their present districts, and reorganizing the county as one complete unit. It would provide for one county board and describe its duties and limitations. One duty of the new board might consist of re-districting the county in such a way that the territory would be in the district of the nearest school.

Further legislation would provide means for compensating the present districts that now own property that would be usable in the proposed plan. This might be solved by delegating the authority to the newly elected board to appraise and purchase the usable existing school property. This property might be paid for through future tax reductions in the taxes of the present owners. Further legislation might promote the establishment of consolidated graded schools in the four buildings abandoned as high schools.

The qualifications of the county superintendent would need to be raised to require the persons serving as county superintendents to have the same qualifications as city

superintendents and high school principals.

The whole plan would be facilitated by state legislation providing state compensation for districts willing to consolidate.

The present inter-state and inter-county tuition law would provide for those students living on the county borders and desiring to attend school in adjoining counties or Nebraska.

#### The Advantages of the Proposed Plan

The advantages of the proposed plan could be divided into three groups, financial, educational, and sociological. A financial saving of \$9 per high school student each year would probably result. This would be an annual saving of \$7,462.50. The plan would promote financial equality as a basis for high school support, as it would distribute the cost of secondary education equally over the entire wealth of the county. It is interesting to note that a uniform tax levy of 4.1 mills would finance the proposed plan and that in 1933 there were only four schools, Ionia, Jewell City, Montrose, and Randall with a lower high school taxation rate than this amount.

Probably a more important advantage would come from the schools being able to offer an enriched curriculum for

all the students of the county. This curriculum would be based on the real needs of the students. The plan has possibilities of developing better teaching and supervision, and it would enable many of the schools to provide better buildings and equipment. Decreasing the number of schools having small enrollments would probably result in many students having better opportunities for educational socialization. The fact that the plan tends to preserve a large percentage of the present schools in their present location would reduce the sociological community losses to a minimum.

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## REFERENCES

- (1) Abel, James Frederick  
Consolidation of schools and transportation of pupils. Bul. 41 Dept. of Interior, U.S. Bur. of Education, p. 30, 104-105. 1923.
- (2) Allen, George  
27th Biennial Report of Kansas State Superintendent of Public Instruction. Topeka. Kansas State Printer. p. 164-165. 1930.
- (3) Betts, G. H. and Hall, Otis  
Better rural schools. Indianapolis. Bobbs-Merrill Co. p. 215-240. 1914.
- (4) Bruner, T. A.  
A study of the place of residence and choice of vocation of former vocational sericulture students in Kansas high schools. Unpublished thesis. Kansas State College. 41 p. 1932.
- (5) Carney, Mabel  
Country life and the country school. Chicago. Row-Peterson Co. p. 127. 1912.
- (6) Cyr, Frank W.  
Developing a state wide program for the small secondary school. Teacher's College Record. 35:8-25. May, 1934.
- (7) Ferriss, E. H.  
The rural high school. Bul. 1925-No.10. Dept. of Interior, U.S. Bur. of Education. p. 50-59. 1925.
- (8) Gaumnitz, W. H.  
The smallness of America's rural high schools. Bul. 1930-No.13. Dept. of Interior, U.S. Dept. of Education. p. 109. 1930.
- (9) Markham, W. T.  
Handbook of organization and practices for the secondary schools of Kansas. State of Kansas. p. 12-30. 1933.