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CONSOLIDATION AND TRANSPORTATION  
PROBLEMS

REPORT OF THE SECOND NATIONAL CONFERENCE ON  
CONSOLIDATION OF RURAL SCHOOLS AND TRANSPORTATION  
OF PUPILS, CLEVELAND, OHIO, FEBRUARY 26, 1923

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II

## CONSOLIDATION OF RURAL SCHOOLS AND TRANSPORTATION OF PUPILS.<sup>1</sup>

The second national conference on consolidation of rural schools and transportation of pupils was called by the United States Commissioner of Education and held at Cleveland, Ohio, February 26, 1923. Twenty-three States were represented. Those in attendance included State commissioners of education, rural-school workers from State departments of education, professors of education in State teachers' colleges, county superintendents, helping teachers, and representatives of Federal bureaus, all of whom were active in consolidating schools or otherwise directly interested in this work.

### THE PURPOSE OF THE CONFERENCE.

The Bureau of Education in making a study of school consolidation found it very difficult to secure accurate data for the United States, because the terms applied to various phases of consolidation both in the laws and in common practice are used with widely different meanings in the different States, and there is no common understanding as to just what schools may properly be classed as consolidated. When these difficulties were pointed out to the workers in consolidation, a general consensus of opinion was expressed in favor of holding a conference to discuss the meaning of the terms used in consolidation, acceptable standards for consolidated schools, and other problems relating to consolidation and transportation.

The plan of the conference was to have a rather informal meeting of people actually at work promoting consolidation and to limit the discussion to three phases of the subject: 1. The training of administrators and teachers for consolidated schools; 2. How shall we determine what constitutes an adequate unit of support and a reasonable unit of territory for a consolidated school; 3. How shall we arrive at a uniform terminology, or, at least, at a general understanding of terms used in a study of centralization in the States? For the second and third topics the following theses illustrative of the difficulties in obtaining satisfactory information about consolidation and

<sup>1</sup> Report arranged by J. F. Abel, secretary of the conference.

transportation were prepared and to some extent formed bases for discussion:

(a) THE ADEQUATE UNIT OF SUPPORT.

1. In order to determine the amount of financial support necessary for each type of school is it well to classify consolidated schools as:

- (a) Elementary consolidated schools, those offering the first 6, 7, or 8 grades;
- (b) Junior-high consolidated schools, those offering the first 9 grades and organized on the 6-3 plan;
- (c) Senior-high consolidated schools, those offering 11 or 12 grades and organized on the 7-4, 8-4, or 6-3-3 plan;
- (d) Consolidated high schools, those offering only secondary courses, 3, 4, or 6 years of work?

2. What is the minimum amount of funds needed annually to support a first-class consolidated school of each type given above?

3. Can we work out an adequate unit of support for either elementary school or high school or both on a basis of average per capita cost plus transportation?

4. Can we work out any proper relationship between the tax rate and the ratio of assessed valuation to true property valuation?

5. Is there a minimum of local assessed valuation below which consolidation would not be feasible?

(b) THE REASONABLE UNIT OF TERRITORY.

1. What is the maximum time that a child should use daily in going to and coming from school?

2. What part of the current expense of maintaining the school may properly be spent for transportation?

3. Is there a minimum area below which consolidation is not practicable?

4. Is there a minimum number of school children below which consolidation is not practicable?

(c) SOME CONDITIONS AND QUESTIONS THAT MAKE FOR CONFUSION IN GATHERING DATA FOR CONSOLIDATION.

1. In some places the "consolidated school" is the school resulting from a combination of other schools. In other places the school that has been abandoned to form a larger school is reported as the "consolidated school."

2. The consolidated school is commonly thought of as the resultant of a uniting of two or more schools in which each of the uniting schools gives up its corporate identity. In three States the consolidated school is defined by law in terms of size, tax valuation, or enrollment without regard to the manner of formation.

3. There are many "union" schools, the resultant of a uniting in which the separate units do not give up their corporate identities. Are they properly classed as consolidations?

4. In some recently settled areas large central schools with all the characteristics of consolidation have been established without going through the preliminary process of decentralization. May they be classed as consolidations?

5. Some reports on consolidation include all schools of two or more rooms.

6. Some reports include only those schools that furnish transportation.

7. "Centralization" and "consolidation" are often used as synonymous terms. In other cases each has a definite, specific meaning.

8. The words "complete consolidation" and "partial consolidation" are applied to grades and also to territory. Thus a central school of 12 grades is

termed a "complete consolidation." A township or county in which all the rural children attend consolidated schools is also spoken of as a complete consolidation. A central school for the upper grades, with the lower grades taught in outlying or "wing" schools, is sometimes termed a "partial consolidation." A township or county with some small schools and some consolidated schools is also spoken of as partial consolidation.

9. There are numerous secondary schools, such as township high schools, county high schools, county agricultural schools, farm-life schools, union high schools, etc. May they be classed as partial consolidations for secondary-school purposes?

10. Rural graded schools are established in some States. They are often the resultant of a uniting of two or more schools, receive direct State aid and have most of the characteristics of consolidation. May they be classed as consolidated schools?

11. Schools that are compelled to discontinue either permanently or temporarily because of small attendance or short term are sometimes reported as consolidated.

12. Districts are sometimes formed by uniting two or more districts without establishing a central school. They are reported as consolidated.

Dr. John J. Tigert, Commissioner of Education, opened the conference with a statement of its purpose as outlined above, expressed his keen interest in the welfare of the rural schools, and his desire to leave nothing undone that would help to make them the best schools possible. He then called to the chair Mrs. Katherine M. Cook, specialist in rural education, Bureau of Education, to preside during the discussion of the first topic.

#### PROGRAM.

The Purpose of the Conference, Dr. John J. Tigert, United States Commissioner of Education.

#### FIRST TOPIC.

Chairman, Mrs. Katherine M. Cook, specialist in rural education, Bureau of Education.

"The training of administrators and teachers for consolidated schools."

Discussion:

J. T. McKee, superintendent of schools, Colbert County, Ala.

Macy Campbell, professor of rural education, Iowa State Teachers' College, Cedar Falls, Iowa.

Discussion from the floor.

#### SECOND TOPIC.

Chairman, M. P. Smith, department of rural education, State Normal School, Emporia, Kans.

"How shall we determine what constitutes an adequate unit of support, and a reasonable unit of territory for a consolidated school?"

Discussion:

George M. Morris, director of rural school section, State department of education, Columbus, Ohio.

E. E. Ramsey, high-school inspector, State department of education, Indianapolis, Ind.

Discussion from the floor.

## THIRD TOPIC.

*Chairman, Lee L. Driver, director of the bureau of rural education, State department of public instruction, Harrisburg, Pa.*

"How shall we arrive at a uniform terminology, or at least at a general understanding of terms used in the study of centralization of all the States?"

Discussion:

W. S. Dakin, State school inspector, West Hartford, Conn.

George A. Selke, State inspector of rural schools, St. Paul, Minn.

Discussion from the floor.

The conference closed with a motion, unanimously carried, that the chairman of the conference representing the Bureau of Education name a committee of five to consider the possibility of ways and means of arriving at more uniformity in the use of terms to be applied in making studies of consolidation and report to a similar conference to be held in 1924.

## FIRST TOPIC.

## THE TRAINING OF ADMINISTRATORS AND TEACHERS FOR CONSOLIDATED SCHOOLS.

By J. T. MCKEE.

The consolidation idea has been very well sold in the markets of American public sentiment. Literally everywhere we hear it talked. The newspapers, the magazines, the farm journals, and even the movies are constantly carrying glowing accounts of the forward march of the movement. Proper machinery has been set up by legislative enactments in many States for carrying out great consolidation schemes; and money has been raised in every way for building and equipping schoolhouses, for providing transportation, etc.

Educators and other friends of education are always optimistic in their promises of the returns to be expected from any forward movement in education, but sometimes we have to give a reason for the delay in the expected returns. While we have no reason to regret the forward movement of the consolidation idea, it is time that we were giving most careful thought to the preparation of those who are to make this new type of school function 100 per cent efficiently in the life of our Nation. We may as well admit to ourselves, but not to the public, that one of the bad results of consolidation is that it has given an opportunity to many very ordinary teachers and administrators to get into extraordinary positions. We no longer have a problem of teaching the value of consolidation, because the people have had faith in us sufficient to follow us, but our problem now is to prepare some teachers and administrators who can make consolidation valuable.

In consolidating schools, we want not merely to satisfy the public, nor to establish here and there, for show, fine schools of this kind. But we must have an ample number of superintendents and teachers who can take charge of the consolidated schools and use them as a force to build up and develop to its best our rural life.

The following propositions are therefore submitted to you for your consideration:

1. Every State teacher-training institution in the country must get a vision of its opportunities and responsibilities for rural development.
2. A careful and comprehensive analysis of conditions in American rural life that need remedying through the consolidated school should be made by these institutions. Then they should set themselves diligently to the task of developing the leadership that can successfully bring about improvements in our rural life.
3. These institutions and the persons who have the authority to plan county systems of schools must come to an understanding as to the type of administrators and teachers who can make these schools do what we have promised the people they will do.
4. Every person showing evidence of possessing the natural qualifications that would help him in developing the necessary leadership for these strategic positions in education should be given every opportunity to learn of the possibilities in this field of work.
5. At least six weeks of the practice teaching done before receiving a normal-school diploma should be done in these consolidated schools by those who most likely will undertake this line of work after graduation.
6. The course of training offered prospective consolidated school administrators and teachers should include a thorough study of farm life, including its educational advantages and disadvantages, the economic factors connected with it, and its civic, social, health, and religious activities. All of these studies of the needs of rural life should be made concrete by frequent opportunities to observe these actual problems of everyday life and to participate in them.
7. One of the courses that should be required of all persons aspiring to leadership in this type of work should be a comprehensive course in rural-school curriculum building.

By MACY CAMPBELL.

Nature set the stage for consolidation in Iowa. The State will soon have nothing but consolidated schools. How soon that will come about will depend very largely on economic conditions.

Consolidated schools are successful in proportion to their leadership. They will have good leaders when conditions are established that attract capable, well-prepared men.

The standard Iowa consolidated school is a modern 12-year school, well taught, well supervised, and placed in a country setting. It is a first-class school organization under a professional leader, whose duty is not only to direct the educational work but to act as co-ordinator between the school and the rural community it serves. We expect our superintendent to be a rural life leader, not a teacher of agriculture.

In preparing superintendents for the modern consolidated school the Iowa State Teachers' College keeps in mind the following objectives:

1. He should have a broad liberal education represented by a four-year college course leading to the A. B. degree.
2. He should know good teaching throughout the various grades and be competent to give critical advice and assistance to trained teachers.
3. He should understand the best practice in solving the long chain of problems of organization and management which grow out of the fact that in the consolidated school a large share of the pupils are transported to school, arriving just before the opening of school and leaving immediately at the close of school. These problems cover a wide range, such as the warm noon lunch, the noon play hour, the practice period for athletic teams, for the school orchestra, band, glee clubs, and chorus singing, competent drivers, well planned routes, transportation morale, and transportation records.
4. He should be competent to give the type of leadership which is effective in a country community. The basis of this is a vision of the fundamental importance of country life and of its vast possibilities. He should have that full sympathetic understanding of country life problems which will make him the valued adviser and friend of country people and that friendly earnest interest in their children which will make him a welcome guest in country homes. He should know how to make use of the many active organizations which to-day are contributing to the improvement of country life and through his leadership bring them to a union of effort about the school.

With the above qualifications in mind, the preparation of superintendents for consolidated schools includes a major course in rural education, courses in the consolidated school and country life, consolidated school administration, the rural high school, advanced problems of the consolidated school, and 15 hours of practice teaching under expert critics in the campus training school. It closes with a laboratory course in advanced consolidated school problems. The young superintendents pursuing this finishing course are taken one afternoon each week for three months to observe the teaching, the management of special problems, and the correlation of the school



with the life of the country community in the four high-type consolidated schools within automobile distance of the college. In each case the superintendent of the school discusses fully the problems under observation for the day from the standpoint of the practical experience in that particular school.

The courses which are designed for preparing teachers and superintendents for consolidated schools are elective, and on account of this they present attractions to those students who have a native interest in life in country communities and a special aptitude to work there. The combination of native bent and thorough preparation produces a very desirable teacher, and such persons are in good demand in the consolidated schools of Iowa. For the past few years those thoroughly qualified as superintendents for consolidated schools have received the highest salaries of all members of the classes graduating from the college. School boards are coming to see the value of superintendents technically trained to aid them in solving their problems. It is now generally recognized that the chief need of consolidated schools, like that of other schools, is good teachers.

#### DISCUSSION.

Dr. Fannie W. Dunn, professor of education in the department of rural education, Teachers' College, Columbia University: In my opinion the emphasis on an adequately trained superintendent for the consolidated school is not provision enough to improve instruction in these schools. Well-trained teachers should also be made a special aim. The consolidated school is more attractive to good teachers than is the one-teacher school because the limited number of grades which they have to handle makes it possible for them to get results that are satisfying to them and to take real joy in their work. The fact that there are a number of teachers in the same school removes the feeling of isolation and professional loneliness which is one of the main causes why good teachers leave the small country schools as soon as possible.

Other advantages for teachers in consolidated schools can be mentioned, such as the likelihood of better living places, the probability of better equipment with which to work, and so on. Even if the salaries are no better in the consolidated school than in the one-teacher school I believe the former will find it easier to get good teachers. It is therefore little short of criminal for the consolidated schools to satisfy themselves with teachers of meager qualifications. Without good teachers the administrative advantages of consolidation will fail of realization.

C. G. Sargent, Professor of Education, Colorado Agricultural College: We have now reached a stage in the development of our

rural education program where we are ready actually to train leaders for this field. The Colorado Agricultural College now offers special courses with this end in view, not only courses leading to a bachelor's degree but also courses leading to the degree of master of science in vocational education, majoring in rural education. Course of study have been approved by our graduate committee and the faculty council.

Most other institutions that train teachers offer similar courses and within a few years we should receive in increasing numbers from these teacher training centers men and women who are prepared for work in the rural schools—not only in the open country but where the country and town are combined under a rural environment.

In order to give our teachers the proper viewpoint and vision toward this work, we have made arrangements for them to do their practice teaching in the Cache La Poudre Consolidated School, which is located only a few miles from the college.

We have reached the stage in the development of this program now where we can no longer depend upon just picking up these teachers as we have done heretofore. In Colorado we expect to train them for this work.

L. S. Ivins, director of rural education, Kent State College, Ohio: As the result of a national survey made for the department of teacher training of the Ohio State Teachers' Association, I find that the rural leaders of the United States agree that the teachers and principals of rural consolidated schools should possess as high a qualification as teachers and principals in the best city schools. Teachers should be trained in institutions where special courses are offered in rural education, with strong courses in agriculture, rural sociology, and rural economics. Both teachers and principals should have opportunity to do observation and practice work in real consolidated schools under the direction of critic teachers who are rural minded and who have had training in rural life and rural education. School boards in the country are demanding the best-trained teachers and principals money can engage. Many Ohio counties are now completely centralized and consolidated. When such boards of education apply to our college for teachers of the elementary grades, they always ask for those holding diplomas. When they inquire for principals, they want those holding at least a bachelor's degree.

Ernest Burnham, director of the department of rural education, State Normal School, Kalamazoo, Mich.: There has been little demand put upon Michigan normal schools for prepared teachers for consolidated schools, but during the past four years the consolidation movement has gained some headway. In response to this growth in the demand, the State Board of Education is at present providing consolidated schools as a part of the training-school system of each

State normal school. These schools will be of both the open-country and the village type of consolidation, and they will be maintained with academic, professional, and financial standards equal to those maintained in the urban training schools. These rural training schools will, in part, be operating next year, and the system will be entirely set up by the following year.

M. S. Pittman, director of rural education, Michigan State Normal College, Ypsilanti, Mich.: Ypsilanti is now planning a large consolidated school district which will have a valuation of \$2,750,000. It will erect a school plant, including residences and garage, at a cost of \$200,000. The school will have on the census roll about 600 children, and it will employ from 15 to 20 critic teachers. This school will be used as a rural training center for the Michigan State Normal College. It will be located 6 miles south of Ypsilanti, in the heart of a very fine farming territory.

## SECOND TOPIC.

HOW SHALL WE DETERMINE WHAT CONSTITUTES AN ADEQUATE UNIT OF SUPPORT AND A REASONABLE UNIT OF TERRITORY FOR A CONSOLIDATED SCHOOL?

By M. L. SMITH.

William Allen White, of our State, has said, "Kansas is like Gaul—divided into three parts. The eastern third is bought and paid for; the central third is bought and still under mortgage; the western third is still being dickered for." That briefly tells of our financial condition. In topography, occupations, and density of population the State has as wide differences. Eastern Kansas is hilly, with a heavy gumbo soil in the valleys. Its agriculture is of a diversified type, with a tendency toward trucking and dairying. There are some mines and a few growing manufacturing sections. The population of some of the counties reaches 125,000. Central Kansas has a rolling surface and a moderate rainfall. It is a wheat and corn section, with the emphasis upon wheat. The people, with a few exceptions, are upon 160 and 640 acre farms. There are a few oil fields scattered over the territory which are problems in themselves because of the rapidly shifting population and the astonishing concentration of wealth. Western Kansas is a country of magnificent distances, good roads, small rainfall, low taxing valuations, and a fine, open-minded people engaged in raising wheat and cattle. Because of varying conditions, such as these, it is difficult to define a unit for even a single State. To establish a unit for the whole of the United States is impossible.

In Kansas, when organizing a consolidated school system, we have certain items which we try to keep constantly in mind. They are:

1. There should be at least four teachers in the grades and they should receive in salary from \$900 to \$1,200 per year.

2. The number of pupils per teacher should be from 20 to 40. The average in Kansas is 32.

3. There should be at least three teachers in the high school if a four-year course is given. The teachers should be paid salaries ranging from \$1,450 to \$1,800 for instructors and from \$1,800 to \$3,000 for superintendents. The average number of pupils in high school per teacher should not be less than 18.

4. The district should not be so large in extent that children will have to ride more than one hour to reach the school. In western Kansas we transport children 15 miles in an hour, while in eastern Kansas it is not necessary to go farther than 6 or 8 miles from the center. One bus will transport 28 to 35 children at a total cost of \$57 to \$60 per month. We recommend district ownership of the busses.

5. The school district should have a taxing valuation of not less than \$1,500,000. It is better to have \$2,000,000 to \$4,000,000. The tax rate should not go higher than 10 mills.

6. Care should be taken in organizing a district that the district being organized does not encroach upon the territory of another consolidation center.

7. The long hauls should, if possible, cross the district north and south on account of danger of the drifting snow blocking the east and west roads.

In conclusion we may repeat that there can be no definite unit for even one State. The unit must be decided upon after carefully studying the locality. In general our rules are:

1. Enough taxable property in order that the tax rate may not be exorbitant.

2. Enough children to organize a good graded school.

3. The right kind of organization with qualified teachers and adequate transportation.

By GEORGE M. MORRIS.

In Ohio a consolidated school is formed when two or more schools are abandoned and the children that had been attending them are brought together to attend school at one school building. A centralized school is formed when all the schools of a township or larger district are abandoned by authority of the people, by a majority vote of all voting, and the children are brought together to attend at one central school building.

There were fewer than 50 centralized schools in Ohio in 1914, the date of the enactment of the "New school code," but there are now more than 1,000 centralized and consolidated school buildings,

housing about 200,000 school pupils in the 12 grades. These pupils are taught by more than 8,000 properly trained and good teachers.

The centralized school buildings have cost from \$30,000 to \$250,000 and house from 200 to 600 pupils. Most of the buildings have a gymnasium, as well as an auditorium seating from 300 to 600 people.

The school district, which may be composed of a township; a township and a village, or other combinations of districts, should have a taxable value of more than \$2,000,000 to insure proper school conditions for both elementary and high schools. The State renders aid to districts that can not finance their schools because of low property values. The county as a unit is also taxed 2.8 mills as a county fund to equalize school needs. The State distributed in 1922-23 as State aid to poor school districts nearly \$2,000,000.

The schools in Ohio are making rapid progress and education in the rural districts is developing effectively and efficiently.

By E. E. RAMSEY.

The topic which has been assigned me for discussion is "How to determine what constitutes an adequate unit of support and a reasonable unit of territory for a consolidated school."

This problem presents many difficulties, in view of the fact that there are so many variable factors connected with the solution of the problem. Among these variable factors are: First, density of population; second, taxable wealth; third, transportation.

It is frequently true in Indiana that density of population is not an indication of wealth. The converse of this statement is sometimes true. Therefore it is not uncommon to find a school unit that has a heavy population and also has a very inadequate taxing possibility to care for their public schools. One section of Indiana is very densely populated and has within its borders one of the greatest accumulations of corporate wealth of all similar-sized areas in the United States. In this particular area the corporation taxes will produce from 50 to 75 per cent of the money necessary for the operation of the public schools. In another region of the State occupied by a mining town of 10,000 population, the population is just as dense, but the wealth, represented by railroads and other corporations, is very small in proportion to the school population. Most of the companies owning and operating the mines have their headquarters in other cities. This fact leaves the mining population of this territory to maintain their schools.

From the standpoint of taxable wealth back of each school child there is an equally wide variation. In 1921 each child in Indiana had \$7,321 of taxable wealth back of him to support the schools. This average really covers up the situation in such a way that it means nothing. For example, in one school unit in Indiana each

child has \$650 of taxable wealth for the support of the schools. Another school corporation possesses \$39,207 per school child. In the latter school unit there is more than sixty times the taxable wealth back of each child that there is in the former unit.

The third variable factor—that of transportation—is mainly dependent upon highway conditions. Highway conditions are in turn dependent upon density of population, taxable wealth, and topographic situations. It is thus evident that good common roads are not to be found in areas that are economically unimportant so far as agriculture is concerned. At any rate, they are not found, unless Federal or State highway systems have been built through the unimportant areas. In the better parts of the country, where the highways have been built on a lasting basis, transportation for a distance of 8 or 10 miles is a possibility. There are considerable portions of Indiana in which transportation is an impossibility for at least four months during the school year. It is apparent to me, therefore, that standardization of the size of unit for consolidation purposes is well-nigh a hopeless proposition in the areas not naturally favored. For the present, consolidation will have to follow the variable factors and be determined by them.

One other phase of the transportation problem may be mentioned. I believe that the amount of time that pupils should spend in transit to and from school is one point that might be standardized. It occurs to me that if a pupil spends two hours per day going to and from school, that this is as much time as should be allowed for such purpose.

In some of the better portions of Indiana, another condition has arisen in the last 20 years, of which full advantage has not been taken. I refer to the interurban system which is to be found in many parts of central and northern Indiana. Transportation is possible for much greater distances over the interurban lines than in any other way. Fifteen to twenty miles would not be an excessive distance for transportation by such a method. It happens, however, that the unit of administration for rural schools in this State is such that it renders this desirable means almost wholly inoperative. The township unit of administration usually means that pupils will not be transported outside their own school unit.

Another of the questions suggested by your committee for discussion is the amount of current operating expenses that may be spent in transportation.

High school per capita in Indiana are as follows: The rural high school average is \$148.55 per capita; city high schools average \$113.74; the State-wide average is \$123.02. In the elementary grades the per capita are as follows: Rural schools, \$60.55; city schools, \$54.28; average of all elementary schools, \$56.68. The cost of trans-

portation in the State for such pupils as are transported averages \$32.14 for rural elementary pupils and \$47 for rural high-school pupils. Approximately 33½ per cent, therefore, of the rural high-school costs is spent for transportation of high-school pupils. It is clear that we should seek in this State to lower transportation cost, since it is too heavy in proportion to total school costs.

The final topic suggested is the number of children below which consolidation is not profitable.

Unless 3 elementary teachers can be employed in a consolidated school, with from 75 to 100 pupils in their charge, consolidation will need to be very carefully considered. High schools, I think, should have at least 75 pupils in them before consolidation is considered. On the other hand, a movement which is gaining ground in the State, and which is helping very materially in the progress of consolidation, is the so-called junior, or six-year, high school. This plan draws pupils from a larger area, because it involves the transportation of larger pupils only. It further has the advantage of bringing together the students of those years in which departmentalization is very valuable.

A conclusion which I would venture to this whole matter is that consolidation is a problem very similar in character to the tariff. It is a local question. In saying this I want to be distinctly understood as favorable to consolidation. But there are conditions under which we may attempt to bring about consolidation which will injure rather than further the cause, and we therefore need to approach the matter in a thoughtful way, adapting the various problems to local conditions.

#### DISCUSSION.

J. T. Calhoun, State rural school supervisor, Mississippi: On account of the varied conditions in different portions of Mississippi it is not easy to set up standards as to units of support either as to extent of territory or tax valuation. The western portion of Mississippi is in the Delta, where the land is rich, the tax valuation is high, and the white children are a considerable distance apart.

In the hill portion of the State the minimum tax valuation is about \$100,000 and the minimum territory as required by law everywhere is 10 square miles.

The maximum time limit for making the trip each way, in my opinion, should be 1½ hours in Mississippi.

In Mississippi we have very few consolidated negro schools because negroes, as a rule, live in colonies or on large plantations in such great numbers that it is not necessary to transport them in order to make a school large enough to do efficient work.

O. H. Greist, county superintendent of schools, Randolph County, Ind.: There were originally 131 one-room schools in Randolph County, Ind. Now there are four, and three of these four will be abandoned at the close of the present term. There are now 16 consolidated schools, each having eight grades and a four-year commissioned high school, and three consolidated grade schools. We are transporting 3,133 children each day. There are 1,044 students in the high schools, none of whom live more than 6 miles from a school. The average ride in the school bus is 3.8 miles. Children have been transported to school in this county for 21 years, and in all that time only two of them were injured, and these slightly. In a questionnaire sent to the patrons asking their judgment on the value of the consolidated school, 404 said the increased school advantages were worth the increased cost, 96 said they were not, 15 did not know, and a number did not answer. In reply to the question whether they would change back to the old way, 458 said no, 59 said yes, 6 did not know, and a number did not answer.

Mrs. A. H. Hoffman, county superintendent of schools, Polk County, Iowa: The adequate unit of support for a consolidated school should be based upon the number of pupils.

For good organization, an elementary school should contain at least three grade teachers with at least 20 pupils each. A high school should contain at least 20 to 40 pupils to maintain a four-year course of study. A satisfactory school can not be organized with fewer pupils than this.

Frequently the appropriation for a school is based upon the number of pupils, as in the Iowa statute, where the tax for the general fund must not exceed \$100 per pupil. This makes a school of 100 pupils provide for \$10,000 income in the general fund. To maintain and operate a consolidated school requires from \$16,000 to \$30,000 a year. Iowa has very little State aid, not more than a total of \$1,000. Every consolidated school receives about \$500 for coming up to certain standards and being approved by the State department. The State semiannual apportionment, which is based upon so much per pupil, amounts to about \$500. The rest of the money must be raised by a mill levy based upon an amount not to exceed \$100 per pupil. Thus the taxable area depends upon the number of pupils who reside in the district as well as upon the number of acres in the district.

The Iowa law provides for a minimum of 16 sections of land in a consolidated school district. School districts that contain this small amount have proved to be inadequate both in the number of pupils and in the value of taxable property. From 24 to 40 sections of land has proved in Polk County to be a better size for taxation purposes and for number of pupils.



The transportation area depends to a great extent upon the kind of transportation, whether motor or horse drawn. Six miles, in general, is the limit of transportation in Polk County. Many pupils drive their own automobiles and furnish their own transportation. One of the most successful means of transportation is provided by high-school pupils who live at the end of the route and pick up the pupils as they come and go from school.

The two main objections to consolidation are transportation difficulties and high taxation rates. In every consolidation these two things should be taken into very careful consideration, their objectionable features reduced to a minimum, and the utmost use made of their advantages. The following plans are suggested:

1. A closer cooperation with boards of directors in regard to transportation problems. A desire on the part of the board to please the people of the community and give satisfaction should be advocated, rather than a strict adherence to the letter of the transportation law. The time and experience of board members are limited and school people in general should make every effort to aid the board in transportation problems and to create an atmosphere of cooperation between the school board and patrons.

Most of the complaints of school taxes in Polk County come, not from the districts that are consolidated, but from the surrounding districts, which have rates from 19 to 34 mills. The consolidated districts pay from 64 to 105 mills, and with less complaint. The consolidated school district is bearing the larger tax burden and is maintaining a high school that benefits the surrounding districts, though they are not paying for that benefit. An equalization of taxes should be brought about by levying more of a State tax and less of a local tax. This will tend to equalize the taxes of the two districts and eliminate some of the argument against the high taxes of the consolidated schools.

C. G. Sargent: In the different States and even in different parts of the same State, conditions vary so greatly that it seems impossible to set any uniform standard as to area or assessed valuation. The one determining factor under Colorado conditions is the number of children, and in our 12 years' experience in consolidation we never yet have found a community where there was a group of one-room schools or of one, two, or three room schools, consolidation of which seemed advisable, where there was not sufficient wealth to build, equip, and operate a school at least reasonably suited to their needs. This is in a State where there is no special State aid and where often 75 per cent and sometimes more of the school revenue is raised by local taxation.

In Colorado we believe in consolidating for all the grades from the first to the twelfth and our experience has shown that it is wise to do so. Ninety per cent of the consolidated schools of Colorado now either have four-year high schools or plan to have them as soon as it is possible to grade up to the twelfth year. The remaining 10 per cent for the present lack sufficient school population to justify high-school courses. In Colorado we have a great variety of conditions—the sparsely settled areas of the Great Plains counties in the eastern part of the State, the more thickly settled irrigated portions in the valleys along the foothills, and the sparsely settled communities in the high altitudes; but we believe in large districts and this helps to give us a large school population as well as assessed valuation, both of which are necessary in establishing the new school.

Most of our districts contain at least a congressional township, while some of them have two and three townships and a few even more. The large and strong consolidated schools in Colorado are the result of these large units.

### THIRD TOPIC.

HOW SHALL WE ARRIVE AT A UNIFORM TERMINOLOGY, OR AT LEAST A GENERAL UNDERSTANDING OF TERMS USED IN THE STUDY OF CENTRALIZATION OF ALL THE STATES?

By LEE L. DRIVER, *Chairman.*

In Pennsylvania our whole aim is to secure better rural schools wherever we can by uniting them without setting limitation on what shall be known as a consolidated school. You can have consolidated schools anywhere. A two-room school is worth as much in the mountains as it is in the valleys or villages.

One of the great obstacles we have to overcome is the unwillingness of rural people to give up that little school that is close at hand. They even object to transporting children and say that it can not be done. I have to use a great many arguments and go about trying to get consolidation in various ways.

Not long ago I was in one district urging the people to consolidate their schools. One farmer was very much opposed to it and said that the children could not possibly be taken back and forth to school over the kind of roads they had. That afternoon he took me into town in his automobile. On the way we passed a truck loaded with milk going in to the station. A young man was driving it, and the truck was getting along without any trouble.

The old gentleman turned to me with a good deal of pride and said, "See that fellow? That is my son. He is a fine boy too. He drives that truck into town every day year in and year out, and de-

livers the milk, and never misses a trip and is never behind time." And I said, "I see how to do it now." The old man asked, "How to do what?" and I answered, "How to get those children transported to school. I will give each one of them a bottle of milk and have the boy haul the bottles, then the children will get there and never miss a trip and always be on time."

By W. S. DAMIN.

Consolidation is but a means toward an end, the end being better schools for children. Consolidation may not always be the only means. Too much emphasis on the mere grouping of schools has resulted frequently in superficial improvement only. A fine building served by modern transportation will not insure a good education unless well-trained teachers and expert supervisors are employed.

It is impossible to use the term consolidation in a national sense, since each State reads into the term some ideals and conditions dependent upon the local situation. For instance, in some places "consolidated school" means a 12-year course with a teacherage and possibly a small farm as part of its plant. In other places a six or eight teacher school to which pupils are transported from abandoned smaller schools constitutes the ideal of a consolidated plant.

In all States, however, there is apparently a common desire to secure conditions under which pupils can be classified and taught in graded groups under modern sanitary conditions, and with the best educational equipment.

Sometimes this ideal is accomplished with little or no transportation. Sometimes a region may be so sparsely settled that 20 square miles will hardly contain pupils enough for a four-room building.

Why not abandon the term consolidated as a designation for modernized rural schools and rate such schools as two-teacher, three-teacher, four-teacher buildings, etc.?

Of course, inspection would be necessary to determine the extent to which the equipment and teaching represent a real advance, but the same must be said of the so-called consolidated schools. Only actual observation can determine whether the consolidation has been worth while.

For comparing one county with another, the ratio of graded schools to one-room schools would be at least as fair a basis as the term "consolidated" and there would be less liability of reading special conditions into such a classification.

Attempts to define by law the term *consolidated school* are futile. Furthermore such a definition overemphasises the consolidation feature, which is really only a device to secure better conditions for the boys and girls in a given area.

By GEORGE A. SELKE

The question, "What is a consolidated school?" is raised in every part of the country. A consolidated school in one State may not be so classified in another. Even within the same State the meaning has changed during the past decade. I can illustrate that best by referring to Minnesota.

When the Holmberg Act was passed in 1911 a consolidated school district was indirectly defined as a district with an area of not fewer than 12 sections formed by the union of two or more districts in which was maintained a school, modern in every respect, with approved heating, ventilation, and fenestration, bubbling fountains, flush toilets, library room, and not less than two industrial rooms and two classrooms. At least two teachers were to be employed, one of whom must be specially prepared to teach industrial work, agriculture, manual training, and home economics. A consolidated school was one which offered a special curriculum, which was located in a district of 12 sections, and to which children were transported.

This special curriculum which provided definite courses to prepare children to meet agricultural, home, and community problems is no longer required, and it is well to keep in mind that a consolidated school need not be in an agricultural district. There are communities in which the teaching of agriculture is not of primary interest. On the iron ranges of Minnesota there are districts that contain "locations," places where a group of homes are erected near a mine. The children of these "locations" are transported to central schools. This is "consolidation" just as much as where children living on farms are conveyed to a central school.

It should also be pointed out that the consolidated school in Minnesota need not be in a district formed by the merging of two or more smaller districts. In the northern part of the State are large districts ranging in area from 1 to 30 townships. In order to keep such districts from being parceled into the small type of district in which a small one-room school is maintained, consolidated school centers are established. To these central schools the children are transported. In the Grand Rapids district alone 8 such consolidated or central schools are maintained, in addition to 77 one-teacher schools. As more population centers are established, more schools of the larger type will undoubtedly be erected. These few illustrations from one State indicate the difficulty in preparing a nation-wide definition of a "consolidated school." In Minnesota a consolidated school is determined neither by the method by which the school district is formed nor by the curriculum the school offers. It is a school in a district comprising at least 12 sections of land, maintained in a building

modern in every respect, employing at least two teachers, and to which children are transported. To such schools the State of Minnesota offers, in addition to the regular aid, a special building aid of 40 per cent of the cost of the building, not to exceed \$6,000, and an annual transportation aid not to exceed \$4,000.

To Mr. Driver's definition, "Consolidated schools are those that have brought about the closing of one-room schools," I would add, "and also those that, by the erection of a larger school, have prevented the establishing of additional one-room schools."

#### DISCUSSION.

Leo M. Favrot, State agent for rural schools for negroes, Louisiana: As I have listened to these discussions to-day, I have realized more than ever the need for a uniform terminology in a discussion of consolidation of rural schools. This discussion has brought out two very distinct facts with regard to consolidation of rural schools. One of these facts is that the term "consolidated school" has a very different meaning in some States from the meaning that it has in other States. The second point brought out is that in many of the States consolidation or centralization still offers very serious difficulties.

A consolidated school in Louisiana is not necessarily different from any other school in the curriculum that it offers, but it is clear that consolidated schools in some of the other States are distinguished to a large extent by the courses they offer.

In the report on a comparative study of instruction in consolidated and one-teacher schools, which is to be presented before the rural-school department by a committee of which Mr. John M. Foote is chairman, is found the following definition of the term "consolidated school":

"A consolidated school is that large type of school formed by the uniting of two or more districts or serving two or more districts or areas, having either public or private transportation of pupils, employing a minimum of three elementary teachers, located in the open country or a small village, and serving a population that is essentially rural."

I believe that this definition embraces the conception of the term "consolidated school" that we have in Louisiana. Consolidation in our own State is greatly simplified by county unity. Our parish school boards are authorized by law to establish schools, to close schools, and to establish new schools. Sentiment in favor of larger rural schools has grown tremendously and the people demand the graded school of many teachers in preference to the one-teacher school. We do not have to overcome the local school district's

opposition to consolidation because we do not recognize local school districts in our law.

Even our negro population realizes the advantages of a large central school to such an extent that the negro child is willing to walk great distances to attend a school of this type and demands a school of this type in preference to the one-teacher school.

It is probable that the term "centralized school" as used here to-day by some of the speakers, applies better than the term "consolidated school" to the type of school that we have in Louisiana. We frequently centralize higher grades in larger schools, leaving the lower grades in the smaller one-teacher and two-teacher schools. This obviates the necessity for transporting any except higher-grade pupils and also has the advantage of keeping the little children near their homes.

The assumption that the consolidated school gets 100 per cent better results than the one-teacher school, as has been expressed here, is not borne out by the study which Mr. Foote will present, comparing the results of instruction in many of the elementary-school subjects. In every subject studied, however, the results obtained in the consolidated school have been found somewhat better than the results of instruction in the one-teacher school. This leads us to the conclusion that the consolidated school, with its superior organization and its ability to secure the services of better teachers, may not be fully living up to its opportunities and responsibilities.

In conclusion, I can see no better way for arriving at uniformity in terminology than to yield to the democratic principle of majority rule. By studying State school laws and State reports we can get at the frequency with which various terms are used and arrive at an adequate and suitable definition for a "consolidated school," a "union school," "centralization," and "consolidation," and "complete" and "partial" consolidation.

The Bureau of Education is the proper agency for making such a study and recommending the adoption of uniform terminology by the rural-school department of the National Education Association.

C. G. Sargent: I believe that a rather rigid test should be applied to consolidated schools and that no school is entitled to be classed as a consolidated school unless it has experienced a reorganization; I do not believe that consolidated schools just naturally grow up either out in the open country or in towns and villages.

The word consolidation should mean a new type of school that results either from the consolidation of two or more districts and the centralization of the new schools therein at a central point in a new plant, or the centralization of two or more schools already within the same district.

This does not necessarily mean an entirely new plant, although it usually does, but it implies a rather thorough reorganization. I see no need of distinguishing between consolidated schools and centralized schools—the difference is only technical; both are brought about in pretty much the same way and for the same purpose, i. e., the establishment of a better school.

I do not believe that two, three, and four room schools or even larger schools that have just naturally grown up as a result of the increase of population are entitled to be classed as consolidated schools.

Consolidation should mean an enlargement and an improvement, and I do not believe it is unfair to apply this test to all schools in order to determine whether they are entitled to be classed as consolidated schools or not.

U. J. Hoffman, assistant superintendent of public instruction, Illinois: I recognize that in the present use of the term "consolidated" very different things are meant. I suggest that the word "consolidated" be applied to a union of districts only and that the word "centralized" be applied to schools only. If you ask me how many consolidated schools there are in Illinois and I reply, "One hundred and twenty-seven," I conceal the truth rather than express it. We have 127 consolidated districts but only about 27 centralized schools. This is clear to everyone. In 100 instances, while the management of from 3 to 10 schools has been placed under one board instead of from 3 to 10 boards, the one-room schools have not been brought to a central point, but go on as before.

In my judgment there are but two schools in America, the public school and the private school. If these are united it will be correct to speak of the united school as a consolidated school. When we wish to say that where formerly there were several schools under different management, there is now but one school at a central point under one management, we should call that a centralized school. The former areas or districts have been consolidated into one area and should be designated a consolidated district.

There are different kinds of centralized schools—those offering only elementary-school privileges no different from the graded village school and those offering high-school privileges with all the social and economical advantages of an up-to-date school. I think the latter should be called a standard centralized school; the former a centralized school. We need a term that conveys to the mind the character of the school, not simply the character of the area or the organization of the school. Standard centralized school means a school chiefly rural which approaches our ideal of what such a school should be.

The objection is raised that in Pennsylvania the township is the unit but in each there are several one-teacher schools. Here there can not be a consolidated district. If all the schools in the township are brought together, there is a centralized school without a consolidated district. If a city, being one school district but having four schools, should decide to have but one school at a central point, it would be an incorrect use of the term to call it a consolidated school. It certainly would be correct to call it a centralized school.