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The Problem of Declining Enrollment in the Elementary Schools of Butte County

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In 1911, 895 pupils were enrolled in the rural schools of Butte county but in 1940 the total enrollment was only 426.

Each figure represents 100 pupils.
EXPLANATORY NOTE

During recent years, enrollments in most South Dakota elementary schools have declined at a very rapid rate. The prevailing type of rural school district organization in most counties has proved rather ineffective in coping with dwindling enrollments and with the consequent high cost per pupil.

It is the purpose of this pamphlet to assist educators, school board members and other Butte county leaders, by analyzing the nature of the problem and by presenting suggestions for its solution; as they have grown out of the experiences of other South Dakota communities.

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ACKNOWLEDGMENT

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The Problem of Declining Enrollments in the Elementary Schools of Butte County

For a number of years population experts have predicted that the downward trend of the birth rate would cause a serious decline in the elementary school enrollment. This prophesy is now being fulfilled in Butte county (Figure 1). From 1890 to 1932 the number of pupils enrolled in the elementary schools of Butte county increased from 469 to 2067, the all-time high. Since 1932 the number of elementary pupils enrolled in Butte county schools has sharply declined, totaling only 1578 by 1940. Enrollment in the rural schools has declined from the peak of 946 students in 1915 to only 426 students by 1940.

The trend in the Butte county birth rate is also shown in Figure 1. It will be noted that the drop in the birth rate roughly corresponds to the elementary enrollment decline. Although the number of births per 1000 of the population have varied widely from year to year, the general trend has been downward. In 1920 there were 26.5 births per 1000 of the population as compared with only 23.2 in 1940. The result of this downward trend in the birth rate has been a steady decrease in the number of children who arrive at school age.

Figure 1. Elementary School Enrollment in Butte County, 1890-1940, and Birth Rate Trend, 1920-1940

Source: Biennial Reports of the State Superintendent of Public Instruction and Reports of the State Board of Health
Figure 2. Population Gains and Losses in Butte County, 1930 - 1940.

Legend:
- Gained
- Lost 10.0 - 19.9%
- Lost 30.0 - 39.9%
- Lost 0.0 - 9.9%
- Lost 20.0 - 29.9%
- Lost 40.0% or more

* Incomplete records
Note: Union township returned in 1930 as township 10-13, range 9.

Source: Sixteenth U. S. Census, 1940
Another important factor in the elementary enrollment decline, the loss of population through outward migration, is shown in Figure 2. In spite of the fact that between 1930 and 1940 the population loss in Butte county amounted to only 6.8 percent, 24 townships suffered losses of 40 percent or more. It will be noted that all of the townships in which losses were greatest were in the unirrigated portion of the county. The townships which show a hundred percent loss had populations of less than a dozen persons in 1930. It is also noteworthy that the bulk of the population losses occurred in the rural areas, the combined population of incorporated places showing a net gain of 20.9 percent during the period. This fact is reflected in the relatively greater decline in rural enrollments. That a direct relationship exists between population decrease and enrollment decline is indicated in the fact that the areas which had the greatest loss in population had the greatest decline in elementary school enrollments and the largest number of closed schools.
Figure 3. Elementary School Enrollments in Butte County, 1920, 1930 and 1940

Legend: Top figure 1920 enrollment  Middle figure 1930 enrollment  Lower figure 1940 enrollment
* Listed as Consolidated in 1920

Source: Records of Butte County Superintendent of Schools
Thirty-four rural schools were operating in Butte county during the 1939-40 term. Eight of these schools had enrollments of five or fewer pupils; 14 enrolled 6-10 pupils; three had enrollments of 11-15 pupils; and 9 schools had more than 16 pupils in attendance. Seventeen schools had been closed. The general downward trend in elementary enrollments is shown in Figure 3, which lists the enrollment of each district in the county for 1920, 1930, and 1940. While a few districts gained in enrollment during the period 1920-1940, a large majority showed a loss. It will be noted that the bulk of this loss occurred between 1930 and 1940. A comparison of the enrollment figures for 1940 with those of 1930 indicates the serious nature of this decline. In 1930, 770 rural elementary pupils were enrolled as compared with only 420 in 1940, a loss of 44.7 percent.

Barring unforeseen population changes, further enrollment losses may be expected in coming years.
Figure 4. Instructional Cost Per Pupil by Size of School in Butte County, 1940

Legend:
- Closed school
- 5 or fewer pupils
- 6 - 10 pupils
- 11 - 15 pupils
- 16 or more pupils

Figure below circle is cost per pupil
Figure in ( ) is district number

Source: Records of Butte County Superintendent of Schools
As may be seen in Figure 4, a wide variation is found in the cost per pupil in the schools of Butte county. In general, it is those schools with the smallest enrollments which show the greatest per pupil cost. The cost per pupil of operating the rural schools of Butte county during the 1939-40 term ranged from $195.00 in Cottonwood School, District 22, and Heston School, District 17, which enrolled three pupils each, to only $25.00 in Orman School, District 12, a school of 29 pupils.

Table 1 (below) indicates that the operation of schools for 10 or fewer pupils is excessively expensive on a cost-per-pupil basis. This is particularly true for those schools enrolling only five or fewer pupils. The average cost per pupil for the five schools in this group was $146.50 as compared with $51.43, the average for all schools.

Table 1. Instructional Cost* Per Pupil for Operating Schools Of Various Sizes in Butte County, 1940

<table>
<thead>
<tr>
<th>Size of School</th>
<th>Number of Schools</th>
<th>Number of Pupils</th>
<th>Total Cost</th>
<th>Average Cost Per Pupil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>51</td>
<td>420</td>
<td>$21,600.00</td>
<td>$51.43</td>
</tr>
<tr>
<td>Closed schools</td>
<td>17</td>
<td>---</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>5 or fewer pupils</td>
<td>8</td>
<td>32</td>
<td>4,680.00</td>
<td>146.50</td>
</tr>
<tr>
<td>5 - 10 pupils</td>
<td>14</td>
<td>116</td>
<td>8,460.00</td>
<td>72.93</td>
</tr>
<tr>
<td>11 - 15 pupils</td>
<td>3</td>
<td>45</td>
<td>1,935.00</td>
<td>43.00</td>
</tr>
<tr>
<td>16 or more pupils</td>
<td>9</td>
<td>227</td>
<td>6,525.00</td>
<td>28.74</td>
</tr>
</tbody>
</table>

* Based on teachers' salaries only
Source: Records of the Butte County Superintendent of Schools
Figure 5. Cost of Maintaining Educational Facilities Before and After Closing Schools in Districts #5 and #23 in Butte County

Cost in 2400 Dollars

Legend: [Shaded] Before closing [Solid] After closing

Source: Records of Butte County Superintendent of Schools

As a means of reducing excessive operating costs, school districts throughout South Dakota have closed a large number of schools during recent years, particularly those in which the enrollment had dropped to five or fewer students. *

During the 1935-36 school term the cost of educating 22 pupils in District 5 amounted to $2303.56. The following year, when one school was closed, the operating expense was reduced to $1919.50—a saving of $384.06. A similar but larger saving was made in District 23 by closing one school. During the 1935-36 term the cost of operating two schools for 38 pupils amounted to $1382.66. Because the enrollment had shrunk to 19 students by the following year the school board closed one of the schools. That year, with only one school in operation, the operating expense was reduced to $937.60—a saving of $445.06.

* It is common knowledge among teachers that where there are only one or two pupils to a grade it is usually difficult to motivate students properly.
Figure 6. Areas From Which High Schools Drew Their Butte County Tuition Students, 1940

Legend:

- O- Number of tuition students attending

- Number of tuition students from each district

Source: Records of Butte County High School Superintendents
Since 1921 it has been compulsory in South Dakota for school districts without high schools of their own to pay tuition costs for their students who attend high school outside the district. Figure 6 shows the areas from which high schools drew their Butte county tuition pupils. Realizing that the cost of operating their own secondary schools would be prohibitive, the people of the districts of Butte county have adopted the policy of sending their students to high schools already existing in town and village centers. Perhaps a similar plan could be adapted to elementary education, particularly in rural districts adjacent to independent districts. As elementary enrollments continue to shrink and costs per pupil to mount in these districts, it would appear to be a practical solution to close the rural schools and send the remaining pupils to village schools. In such a plan the home district would pay tuition and transportation costs. This plan has the advantage of economy, and of extending to farm children the superior facilities and techniques of the town school.

However, until such time as concentration of education services in town centers becomes more general, districts may well continue their policy of closing those schools in which enrollments fall below a specified minimum (usually 5 pupils) and sending the remaining pupils as paying guests to the nearest rural school still operating, paying tuition and transportation costs if the school to which the pupils are sent is located in another district.
Figure 7. Percentage Distribution of Elementary and Secondary Enrollments, By Grade Groups in Butte County, 1920 - 1940

Source: Biennial Reports of State Superintendent

Between 1920 and 1940 the proportion enrolled in the first four elementary grades of Butte county schools shrank from 51.0 to 40.4 percent of the total elementary and secondary enrollment. (See Figure 7) The explanation of this trend may be found in the fact that the birth rates have fallen appreciably since 1920. Consequently, with each passing year there have been fewer and fewer pupils to enter the first grade. In 1920 nearly a fifth (18.6 percent) of the pupils enrolled in the elementary and secondary schools of Butte county were first graders, whereas by 1940 the proportion in the first grade had shrunken to 10.1 percent. (See Table 2) With the greatly reduced number of persons under six years of age, it is obvious that elementary enrollment will continue to decline for a number of years even though the birth rate trend should be reversed.

Figure 7 also shows that the proportion enrolled in high school was almost tripled during the period 1920-1940, increasing from 8.9 to 25.7 percent. This trend may be explained by the fact that an increasingly greater proportion of eighth grade graduates are continuing their education in high school.

Table 2. Percentage Distribution of Elementary and Secondary Enrollments In Butte County by Five Year Intervals, 1920 - 1940

<table>
<thead>
<tr>
<th>Year</th>
<th>Grade 1</th>
<th>Grade 2</th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920</td>
<td>18.6</td>
<td>12.2</td>
<td>11.1</td>
<td>9.1</td>
<td>10.2</td>
<td>11.0</td>
<td>6.3</td>
<td>12.6</td>
<td>4.2</td>
<td>2.8</td>
<td>1.0</td>
<td>.9</td>
</tr>
<tr>
<td>1925</td>
<td>13.6</td>
<td>11.4</td>
<td>10.9</td>
<td>11.5</td>
<td>8.9</td>
<td>11.8</td>
<td>7.3</td>
<td>7.6</td>
<td>6.3</td>
<td>5.6</td>
<td>2.7</td>
<td>2.4</td>
</tr>
<tr>
<td>1930</td>
<td>12.4</td>
<td>9.1</td>
<td>10.2</td>
<td>9.8</td>
<td>10.1</td>
<td>9.3</td>
<td>10.1</td>
<td>9.3</td>
<td>6.6</td>
<td>4.7</td>
<td>5.3</td>
<td>3.1</td>
</tr>
<tr>
<td>1935</td>
<td>10.8</td>
<td>9.9</td>
<td>9.5</td>
<td>9.9</td>
<td>9.6</td>
<td>8.5</td>
<td>9.2</td>
<td>8.6</td>
<td>7.5</td>
<td>5.9</td>
<td>5.6</td>
<td>4.9</td>
</tr>
<tr>
<td>1940</td>
<td>10.1</td>
<td>10.1</td>
<td>9.6</td>
<td>10.6</td>
<td>8.2</td>
<td>9.0</td>
<td>8.0</td>
<td>8.6</td>
<td>7.0</td>
<td>6.9</td>
<td>6.0</td>
<td>5.8</td>
</tr>
</tbody>
</table>

Source: Biennial Reports of State Superintendent of Public Instruction, 1920, 1925, 1930, 1935 and 1940.
How Certain South Dakota Rural Communities Are Successfully Solving the Declining Enrollment Problem

School boards confronted with the problem of declining enrollments should study their local situation carefully before taking action. The four plans listed below have all been tested by different South Dakota communities and have been found practical. One, or the other of the first two alternatives has frequently been used as a temporary measure until further action was necessary. The last two plans are in the nature of a more or less permanent reorganization of the present rural district system.

Cooperating with nearby rural schools

When enrollment has dropped to five or fewer pupils certain districts have kept their district organization intact but have closed one or more schools. In cases where all schools of the district have been closed, the remaining pupils have been sent to the nearest adjoining rural school where satisfactory arrangements for tuition and transportation could be made.

Tuition pupils to town schools

Where satisfactory arrangements could not be made with nearby rural schools, the remaining pupils have been sent as tuition students to the nearest independent school in village or town. This plan is frequently no more expensive than the first, but has the further advantage of better educational experience than is usually possible in the one room school. In effect, it is essentially the same method which has been successfully used in sending farm children as tuition pupils to high school.

Consolidation

Where the second plan has been in operation for a number of years, town and nearby country districts have frequently consolidated into a single district. Such a plan has many advantages, but should first be tried out informally as a centralized school system before determining the details of consolidation.

County-wide district plan

In at least one vast river county a county-wide district plan is now in operation. Under such a plan one county school board determines the location of rural schools and can regulate the number of such schools to fit in with the enrollment trend.