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## **A TOTAL BUDGET METHODOLOGY FOR ANALYZING INTERDISTRICT EQUITY OF STATE EDUCATIONAL FINANCE SYSTEMS WITH AN APPLICATION TO NEBRASKA**

F. Gregory Hayden

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University of Nebraska-Lincoln*

As in most states today, serious legislative concern is being given to elementary and secondary educational finance reform in Nebraska.<sup>1</sup> Also as in most states, Nebraska's main reform concern is the equity of fiscal distributions among school districts. Although, as anyone who has attempted to keep up with court decisions regarding educational finance knows,<sup>2</sup> equity is an elusive enough concept in the abstract and even more so when applied in the concrete. In general, though, the concern with regard to school finance is one of interdistrict equity. Using recent decisions as the criteria for judgment, the results of this study indicate that the Nebraska state school finance system is inequitable. The methodology articulated in this article with regard to interdistrict equity in Nebraska found that:

1. The state system of financing schools is not an equalization system. In fact, it has just the opposite effect: it taxes the poor districts to provide school funds to the wealthy districts. Poor districts are made worse off because of the state financing system.
2. Even the one term in the state formula which is labeled an "equalization" term does not equalize.
3. Many formula terms are added to all districts' budgets by one statute and subtracted from all districts' budgets by another statute, thereby serving only to confuse.
4. In the final analysis, state Foundation Aid goes only to the more wealthy districts; the least wealthy receive no Foundation Aid.
5. All the monies from the original land grant set-aside for schools go to the more wealthy districts and none to the poorest districts.

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<sup>1</sup> See Allan Odden, *School Finance Reform in the States: 1978*, Report No. F78-1 (Denver: Education Commission of the States, 1978).

<sup>2</sup> See Betsy Levin, "New Legal Challengers in Educational Finance," *Journal of Education Finance* 3, No. 1 (1977).

6. When the legislature does not fully fund the state education formula, the burden of underfunding falls more heavily on the low-wealth districts than on the rich.
7. Although courts have ruled that the community burden of other governmental services should be taken into consideration in determining a school district's tax burden, this is not done in the Nebraska system.
8. The underassessment of property, as measured by the sales-assessment ratio, is much greater for rich than for poor districts.
9. The greater the per-student assessed wealth of the district, the less are the income and sales taxes paid to the state for the support of education.
10. The greater the state exempted property-tax-replacement payments for schools, the greater is the assessed valuation of the district. This is a large benefit to rich schools.

These conclusions are a result of a new methodology which is explained below.

The methodology which has been used in past studies regarding educational finance equity has been to look at only a reduced aspect of the total fiscal pattern. For example, the distributional equity of funds from the Foundation Aid may be assessed, or the equity of the property tax may be assessed. These approaches fail to look at the total finance system, however. Before interdistrict equity can be determined, it is necessary to use a total budget approach which includes both the receipts a district gets from the state and the taxes a district pays to the state. Only through a total budget approach can it be understood that some districts will be net gainers and others net losers, depending on their relationship to the state system. To finance the system, the amount received by the gainers will equal the amount received by the losers and the total state budget at the end of the year is zero. Once the districts' net fiscal positions are determined, these can be related to their wealth positions to determine equity. Such an approach has never previously been completed, and the purpose here was to prepare a total budget approach for Nebraska by starting with statutes and tracing through these statutes' fiscal impacts on the districts.

The procedure followed in articulating the new methodology was as follows:

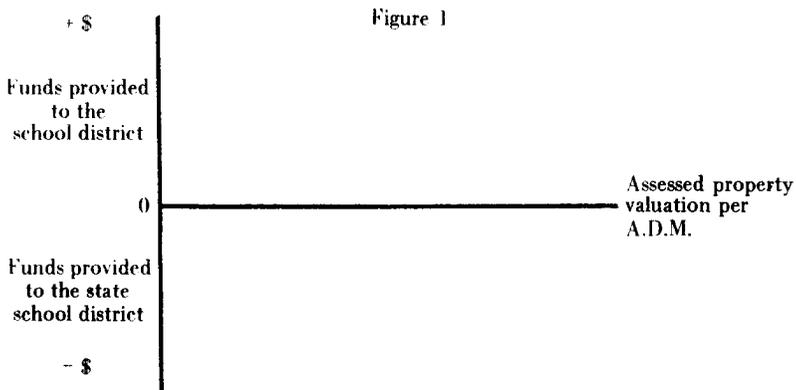
1. A search was made to find all the state statutes which govern the flow of funds to school districts and the taxes mandated from the districts.
2. The second step was to trace the administration of the formula

through the relevant state agencies and become cognizant of administrative procedures which affect fund flow.

3. The next step was to design a total formula (see Table 1) which could be used to determine the net position of the districts.
4. The final step was to collect the data, the complexity of which requires presenting only the source, method of computation, and regression results in footnote form below.

The methodology is explained through an application to Nebraska by the use of both algebraic formulation and a graphing of the formula. Each part of the formula is explained and graphed separately. The same number used to designate the term will follow the heading name of each term, and will appear before the formula describing the term and in Table 1. The curve for each new term described is added to the one previously described in order to arrive at a system summary, which is graphed in summary form in Figure 17. The same letter is used to designate the same curve in the separate graphs and in Figures 17 and 18. The total algebraic formula is displayed in Table 1, along with legal references and definitions for the symbols used. Finally, Figure 18 indicates the final shape of the finance system with regard to which districts pay and which receive. This shows what kinds of districts are net losers and what kinds are net gainers with regard to wealth in the district.

The graph format used in the explanation can be seen in Figure 1. The axes, which are on a per-pupil basis, indicate the total budget approach. The vertical axis represents the funds taken from or provided to a district, and the horizontal axis is the assessed property valuation of each district per Average Daily Membership (A.D.M.). The negative portion of the vertical axis indicates funds mandated from the district and the positive portion indicates funds paid to the district.



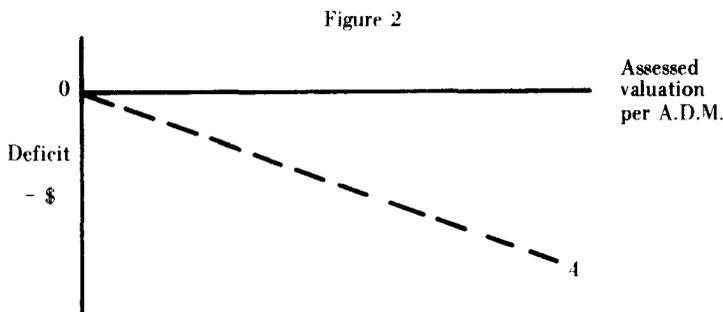
The names applied to each term in the formula are not always the same as those used by the Nebraska State Department of Education or in the statute. The attempt made here is to use names that are as descriptive as possible. For example, the nomenclature "equalization" is not used because there is no equalization term in the formula. Equalization is a name frequently used in Nebraska to designate the tax levy that is applied to all districts, but that is not equalization because nothing is being equalized. The same tax rate which is applied to all will leave the districts in their original relative position. For there to be equalization, wealth, expenditures, need, or something else must be made more nearly equal.

*Negative Equal Rate Levy (1)*

Each kindergarten through twelfth grade (K-12) district in the Nebraska system is mandated, if it is to participate fully in the state system, to provide to the state fund twelve mills of each dollar of local assessed property valuation regardless of the number of children it has to educate. Or, in terms of the formula:

$$(1) \quad - (0.012) (\text{Assessed Valuation}).$$

If this is divided by the A.D.M. it can be depicted graphically by a straight line curve *A'* in Figure 2, because each district is paying the same percentage of its assessed value (this does not mean equal tax effort). Thus, the same percentage (0.012) applied to larger assessed valuations is indicated by a larger deficit as the districts' valuations increase.



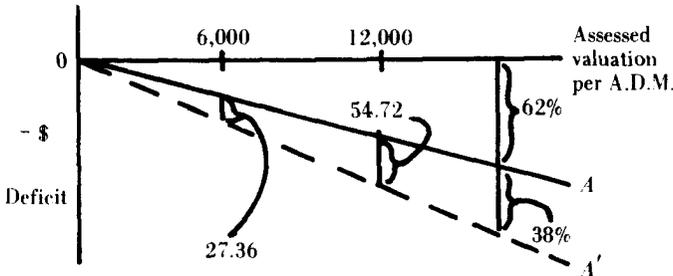
In some years Nebraska does not fully fund this portion of the formula. For example, in 1975-76 the state financed (collected) only 62 percent of it.<sup>3</sup> This reduced the amount paid in by 38 percent and affected the formula as:

<sup>3</sup>C. Cale Hudson, *Understanding Public School Finance* (Lincoln: Bureau of Educational Research, University of Nebraska, 1977), pp. 29-30.

- (.62) (0.012) (Assessed Valuation).

This can be effected graphically by the shift from  $A'$  to  $A$  in Figure 3. Now it is obvious that underfunding is to the advantage of those districts with the greater assessed valuation.

Figure 3



For example, a district with \$6,000 per pupil assessed valuation would gain \$27.36 per student, while a district with \$12,000 would gain \$54.72 per student. Since underfunding can occur at any time, line  $A$  is used as the relevant curve from which to introduce additional changes.

A note may be in order regarding underfunding. It occurs when the legislature does not fully utilize what is required by the formula, or, stated differently, does not provide enough funds to provide what the formula prescribes for each district. In Table 1 all of the terms affected by this shortfall are indicated.<sup>4</sup> If there is to be underfunding, low assessed valuation districts would be treated more equally by spreading the underfunding equally among all students, rather than on an equal percentage basis which favors (see Figure 3) the high valuation district.

One could also indicate the underassessment of property valuation. This would be shown by a similar additional pivot in curve  $A$  upward, because the richer districts underassess by a greater amount than the poor districts.<sup>5</sup>

<sup>4</sup>Of course, as will be seen later, if the legislature drastically underfunded the formula, even more terms would be affected. However, given the priority for underfunding and given the traditional levels of underfunding, those terms in Table 1 are the ones affected.

<sup>5</sup>The assessed valuation figures can be found in the annual *Statistics and Facts about Nebraska Schools*. To fund the degree of underassessment, the assessed valuation was adjusted by the assessment sales ratio provided by the *Department of Revenue, Property Tax Division Reports*. The difference between the adjusted property valuation and the original assessed valuation was then correlated with the original. The Pearson correlation between the two is .90939 and is significant at the 99 percent

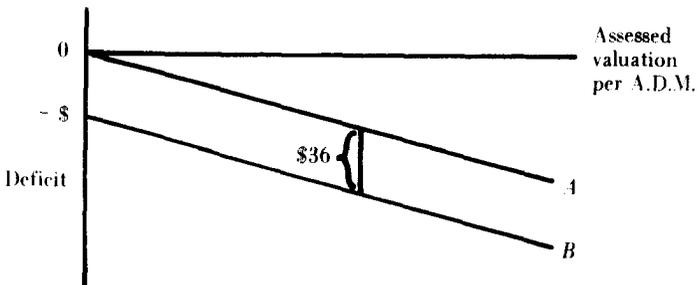
### Negative Flat Foundation Aid (2)

A term equal to \$17.50 for each kindergarten child, \$35 for each child in grades 1-6, \$42 for each child in grades 7-8, and \$49 for each child in grades 9-12 must be contributed by each district regardless of wealth. If  $N_2$  indicates the A.D.M. in kindergarten,  $N_3$  the A.D.M. in grades 1-6, and so on, then the term reads:

$$(2) - [17.50(N_2) + 35(N_3) + 42(N_4) + 49(N_5)].$$

Since this is not affected by the wealth in the district, if an equal mix of different students in all districts is assumed, it can be depicted graphically with line *B* (Figure 4) by shifting down from line *A* by approximately \$36.00 for all assessed valuation levels.

Figure 4



### Negative Accountable Receipts (3)

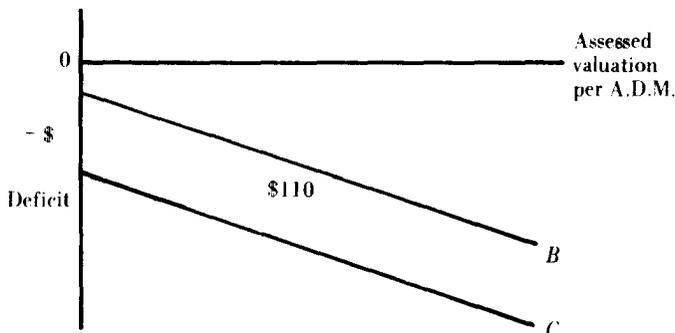
The Accountable Receipts are equal to the nonresident high school tuition, plus city and county fines and license fees, state apportionment, and the insurance premiums tax. State apportionment is by far the most important of these. It is provided by income derived from the original land grant set-aside for school support. State apportionment is provided to the school districts in proportion to the number of pupils 5-18 years of age in the district. Each district, regardless of wealth, must contribute its Accountable Receipts to the school fund; therefore, apportionment can be

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level. This indicates that the greater the property value, the greater the under-assessment. If the assessed valuation is increased according to the assessment sales ratio, it has a great impact on the levy term. If assessed valuation is adjusted with the assessment sales ratio and if the levy term is considered alone, the adjustment would cause some districts to lose approximately \$2,000 per student and other districts to gain approximately \$500. But it should be pointed out that rich districts also lose funds in other terms by underassessing.

represented by line *C* which is represented by \$110 per A.D.M., the average amount in 1975-76.

Figure 5



After the districts' deficits have been created through contributions to the state fund, elements may be accounted for by moving the curve upward to determine how much each will finally receive.

*Positive Accountable Receipts (4)*

After each district contributes its Accountable Receipts, this amount is returned to the district on the same basis as it was contributed. Therefore, this term has no effect on wealth, tax effort, or need. The effect of this, graphically, is to move the district back up to line *B* from line *C* on Figure 5.

*Positive Flat Foundation Aid (5)*

The foundation aid [see description in (2) above] that each district contributed to the fund is paid out to the district. Therefore, like the Accountable Receipts, it has no effect on the outcome of the district receipts. The negatives of these two simply cancel the positive, and terms 2, 3, 4, and 5 in Table 1 could be eliminated, when there is full funding, without affecting the final outcome. Graphically, the district is now back up to line *A* in Figure 3.

*Positive Flat Grant (6)*

The flat grant is added on the basis of A.D.M. in the different grade levels. Once again, using the symbols as defined above [see (2)], the formula provides for flat grants as:

$$(6) \quad + [225(N_2) + 450(N_3) + 500(N_4) + 550(N_5)].$$

Figure 6

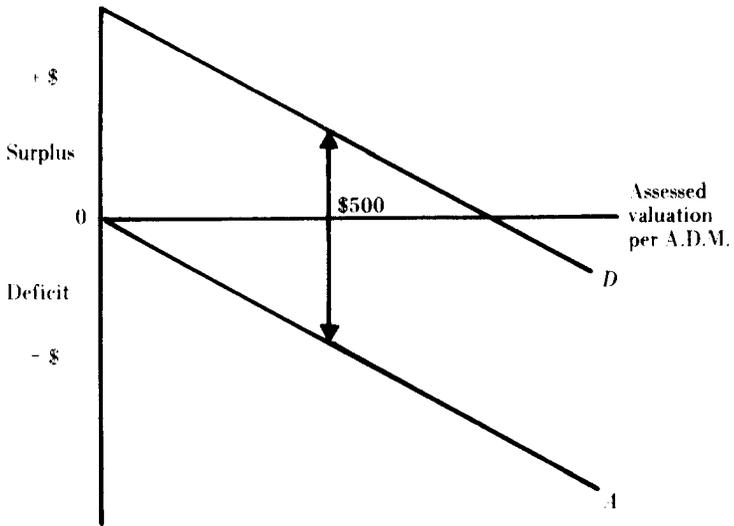
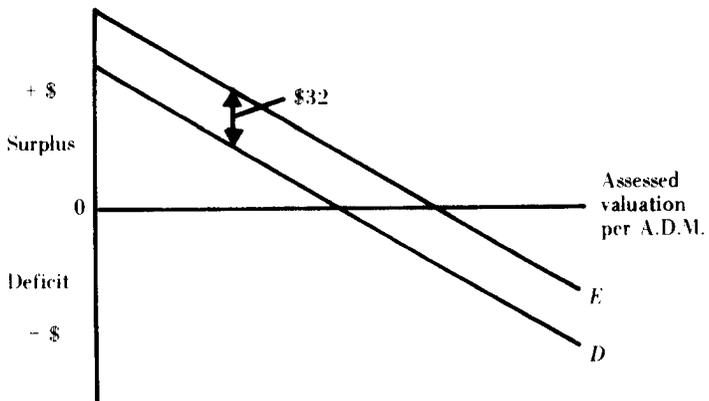


Figure 7



Since this is added without reference to wealth or tax effort, it can be depicted, once again assuming the same mix of students in all districts, by simply adding \$500 at all wealth levels to line A (Figure 6). Now it can be seen from curve D that if there were no additional terms in the formula, low valuation districts would be paid the distance from the horizontal axis to line D and high valuation districts would be required to pay into the fund the negative distance to line D in order to provide the funds for the less wealthy. This is not the end of the formula, however.

*Positive Added Flat Grant (7)*

Under Legislative Bill 984, each district is provided an additional flat grant equal to approximately \$32 per student, or:

$$(7) \quad + [32(N_1)].$$

This is depicted by line E (Figure 7).

There are three terms (8), (9), and (10), to cover special costs which are added on when they apply:

*Positive Population Density Compensation (8)*

When the population in any county is less than four persons per square mile, the financial support of the flat grant is increased: by 10 percent if the population is between 3 and 4 persons per square mile, 20 percent if the density is between 2 and 3, 30 percent if between 1 and 2, and 40 percent if less than one person per square mile. For example, if 20 percent is appropriate, the term would read:

$$(8) \quad + .20 [225(N_2) + 450(N_3) + 500(N_4) + 550(N_5)].$$

*Positive Increased Membership Compensation (9)*

Under this term each district is paid the percent of yearly increase in A.D.M. times the flat grant if the increase is greater than one-half of one percent (.005). Assuming a 2 percent increase, the term would read:

$$(9) \quad + .02 [225(N_2) + 450(N_3) + 500(N_4) + 550(N_5)].$$

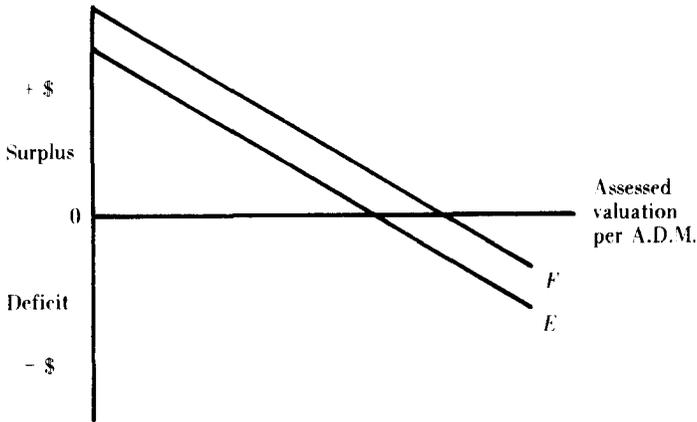
*Positive Transportation Compensation (10)*

Each student in the school district residing more than four miles from school is eligible to receive 25 percent additional flat grant. If these students are designated at the various grade levels by  $N_{14}$  through  $N_{17}$ , then:

$$(10) \quad + .25 [225(N_{14}) + 450(N_{15}) + 500(N_{16}) + 550(N_{17})].$$

The Positive Compensation to cover special costs is represented by line F, which indicates that it does not vary by level of assessed valuation per student (Figure 8).

Figure 8



*Positive Incentive Terms (11), (12), (13), and (14)*

The state formula provides for a number of incentive programs, terms (11)-(14), in which the school district may participate if it can afford to:

*Positive Degree Incentive (11)*

This is the degree incentive in which districts are paid extra depending on the number of doctoral, masters, and bachelor degree holders they have on their staff. The term reads:

$$(11) \quad + [\$350(\text{Ph.D.}) + \$250(\text{M.A.}) + \$150(\text{B.A.})].$$

*Positive Deprived-Student Incentive (12)*

Another incentive is offered for the number of culturally and educationally deprived pupils who are in approved programs. This term provides the district with an amount equal to the flat grant for a child in the program, or:

$$(12) \quad + [225(N_{10}) + 450(N_{11}) + 500(N_{12}) + 550(N_{13})].$$

*Positive Gifted-Pupil Incentive (13)*

The gifted-pupil incentive offers a reward of 25 percent additional funds over the flat grant payment for each gifted child, or:

$$(13) \quad + .25 [225(N_{14}) + 450(N_{15}) + 500(N_{16}) + 550(N_{17})].$$

*Positive Summer School Incentive (14)*

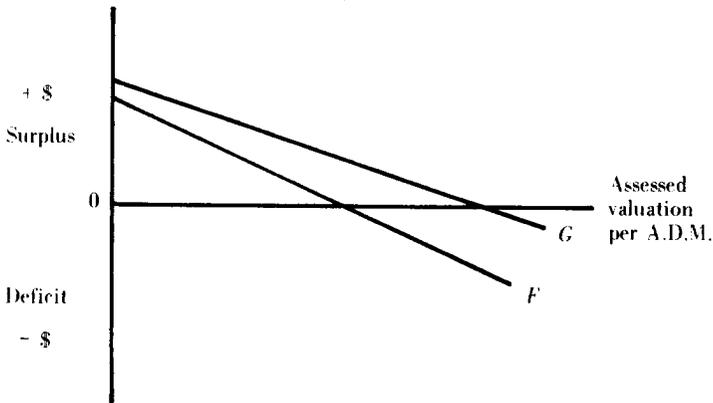
The summer school incentive is determined on the basis of \$18 per A.D.M. in summer school, or:

$$(14) + 18(N_1).$$

Line *G* indicates the incentive add-on. The distance between *F* and *G* is much greater at the high assessed valuation end than at the low one, which means a greater payment to the rich districts. This indicates why educators have traditionally opposed incentive terms in distribution formulae. The wealthy districts can afford to take advantage of the incentive, whereas other districts cannot. This changes the shape of the overall function and reduces the return per student of poor districts as compared to rich districts, even though the original slope was established by an equal tax rate levied on all districts. It seems most unfair when the incentive approach is used with regard to culturally and educationally deprived. Poor districts, which usually will have the most use for such funds, will not be able to afford them. Of course, this perverse effect is lessened, the greater the incentive offered.

Note that curve *G* is only representative and does not indicate the situation correctly for all districts, because some high assessed valuation districts do not choose to receive any of some incentive program monies.

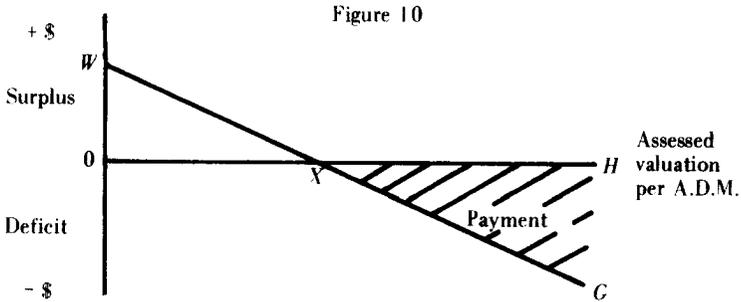
Figure 9



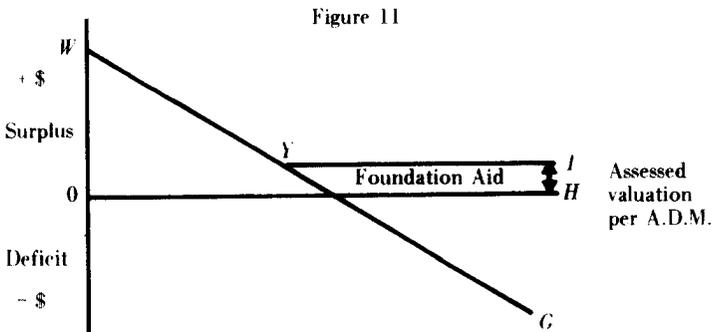
Another issue related to incentive terms is that of overburden. The courts continue to rule that the community burden of other governmental services must be taken into consideration in determining a local district's school burden. For example, a district may appear to have a high fiscal capacity per student, but it may also have many other commitments. This is sometimes referred to as "municipal overburden," but can also apply to rural areas which might have excessive expenditures. These overburdened districts also get hurt because they cannot afford incentive grants-in-aid.

*Positive Payment for High Assessed Valuation Districts and Positive Foundation Aid and Accountable Receipts for High Assessed Valuation Districts (15)*

**Positive Payment** At this point it can be seen from Figure 9 that there are still some high assessed valuation districts that would be required to pay into the fund without receiving state aid and therefore help equalize the cost of education. This is not done, however. Instead, these districts receive a payment equal to the distance between curve *G* and the horizontal axis. The districts to the right of point *X* in Figure 10 receive this aid and those to the left of *X* do not receive it. This subsidy to cover their deficit moves the curve to *WXH*.



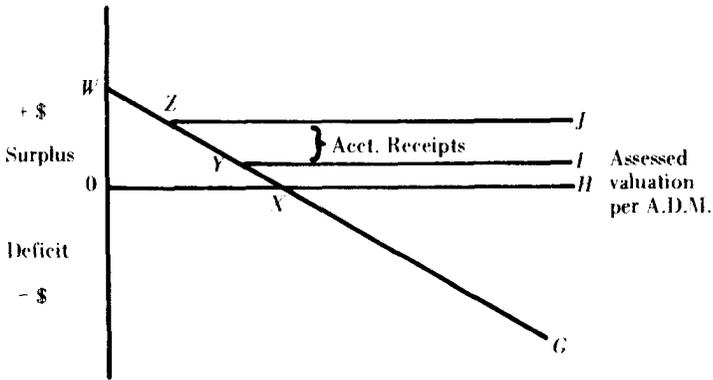
**Positive Foundation Aid** At this point, the rich districts again receive Foundation Aid [described in (2) and (5) above], which the other districts do not receive again. Recall that *all* districts were credited with Foundation Aid and all paid it back into the state fund (line *B*, Figure 4). Now only the districts to the right of point *Y* (Figure 11) receive it again. These districts receive it twice, even though all districts pay an equal mill levy.



If the formula were summed at this point, it would provide the amount shown on the "Nebraska State Department of Education Worksheet."

Positive Accountable Receipts In a similar manner, Accountable Receipts are added for the wealthy districts. Recall that all districts received their Accountable Receipts, and all paid this amount into the fund (line C, Figure 5). Now Accountable Receipts are added again only for those districts to the right of point Z in Figure 12. It can be seen from Figure 11 that the equal rate levy has very little effect on the final outcome of the district payments.

Figure 12



The term in the formula for the special payment to high assessed valuation districts is:

$$(15) + [(\text{Foundation Aid} + \text{Accountable Receipts}) - (\text{Sum of terms 1 through 14})],$$

with the stipulation that the term is ignored if it is negative. The term will be negative when line G is greater than the level of line J (to the left of Z). Or stated differently, it will be negative when the assessed valuation is low. It will be positive for any district to the right of point X. For any district to the right of Z but to the left of X, it is a positive subsidy, but less than the Foundation Aid plus the Accountable Receipts. As the district is situated to the right of point X along curve G, the subsidy is greater than the Foundation Aid plus the Accountable Receipts.

Many discussions regarding Nebraska state education systems stop at this point. This is one of the reasons for the often-repeated claim that only a small percentage of the Nebraska system is financed from state sources. In fact, however, due to the personal property exemption, approximately 40 percent of the educational expenditures comes from the state.

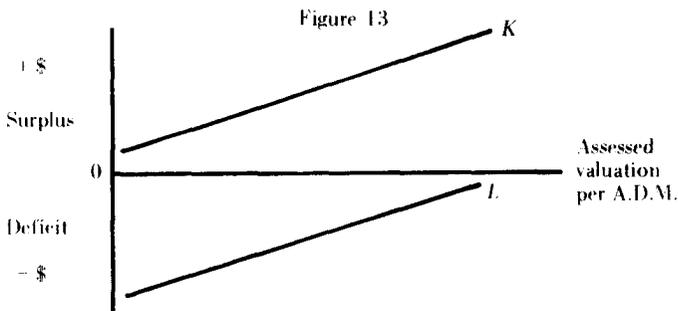
If the analysis stopped here, it can be seen from curve *WZJ* that all districts would receive a positive payment, or have a net surplus. But that is not possible; some districts have to pay, or incur a net deficit. Therefore, sales and income taxes used to pay for the receipts must be considered, and this is done in conjunction with the personal property exemption.

*Property Tax Replacement and Sales and Income Taxes (16) (17)*

In addition to the sales and income taxes used to pay for the above, additional education funds come from the state sales and income taxes paid to local districts to replace property taxes lost through the homestead exemption and personal property exemption. Consistent with the long-term national trend, the property tax is becoming less important for Nebraska local governments. One means through which local governments are using the sales and income tax is through the state government paying local governments the amount they would be receiving if they were taxing exempted property at their current mill levy. The property exempted by state law includes homesteads and business-related property, such as inventories, grain supplies, and the like. This source of local funding is growing rapidly and will continue to do so in the future. A large percentage of this tax source is used by school districts for financing education. Because it is usually included under the heading of local sources in published data, researchers get the idea that it is from the property tax. Since it is a major source of funding, it must be considered in this formulation consistent with its actual source and disposition. If the local property tax rate is represented by  $t_p$ , then the term would read:

$$(16) \quad + t_p (\text{Assessed Valuation of Exempted Property}).$$

Therefore, the greater the assessed valuation of the district, the greater the funds received by the district.<sup>6</sup> This is depicted graphically by line *K* in Figure 13.



<sup>6</sup>The Pearson correlation between the two is .65279 and is significant at .00001. The assessed valuation for the districts is found in the annual *Statistics and Facts*

The sales and income tax payment, also depicted in Figure 13, is below the horizontal axis because it is taken from the district. As indicated by *L*, there is an inverse relationship between sales and income taxes paid and the assessed valuation in the district.<sup>7</sup> The “common sense” view is that income and sales taxes should be positively correlated with property values. However, as Albert Einstein pointed out long ago, the use of intuition and common sense have been a serious hindrance to scientific advance. Common sense is simply an expression of the common thought of the day, and if we could depend on conventional wisdom, there would be no reason for scientific or empirical work. Those familiar with either the work of John R. Commons or with the public finances of Nebraska are aware that there is no iron law of economics defining either income or property, or the relationship between them. As Commons clarified in his *Legal Foundations of Capitalism*, property and income are both legal intangibles.<sup>8</sup> There is no reason to expect a priori that the separate legal definitions should follow the same legal channel. In Nebraska, those with the highest per student assessed property values, that is, farmers and ranchers, have a low cash income relative to other groups with similar property values. Thus their sales tax payments will be low. Those with high property values, especially farmers and ranchers, also are those with the greatest income tax deductions relative to others with similar incomes. Thus their income tax payments will be low. Therefore, the kind of results depicted in Figure 13 might be expected.

The main interest at this point is the net result of *K* and *L*. If the two are compared, it can be seen that the negative tax payment of the low assessed value districts is greater than the receipts of those districts. As the assessed valuation increases, the district's net position improves, because receipts are growing and tax payments are decreasing. The net result of this is depicted in Figure 14 by curve *M*.

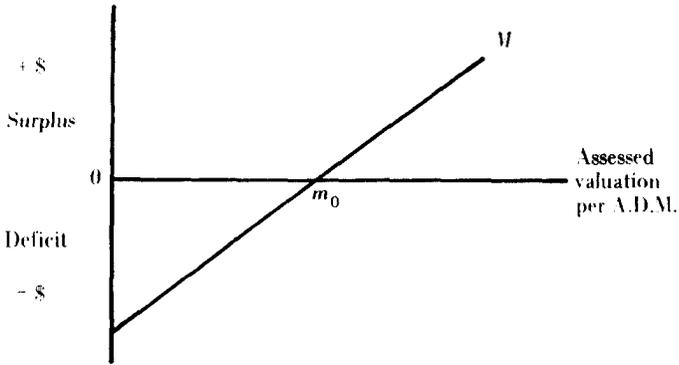
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*about Nebraska Schools.* However, the funds received to replace exempted property taxes is not published. The author compiled them from the original county report: the “Nebraska Department of Revenue Schedule VII—City and Village Schools Taxes Levied—Form 49.”

<sup>7</sup>The Pearson correlation coefficient is  $-.26251$  with significance of  $.00551$ . The correlation does not have a high predictive value for any individual district, but it does show a definite inverse relationship as indicated by curve *L*. Since income and sales taxes paid are not available by school district, county data are used. They are available in the *Nebraska Department of Revenue Annual Report*.

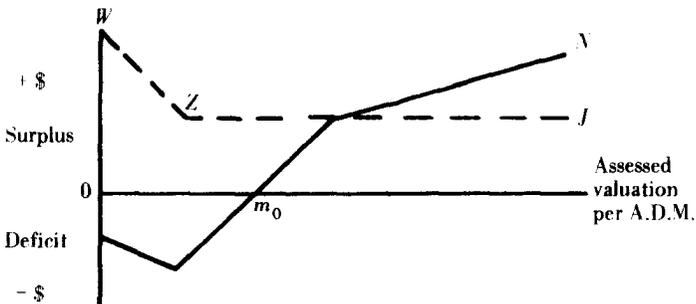
<sup>8</sup>John R. Commons, *The Legal Foundations of Capitalism* (Madison: University of Wisconsin Press, 1957).

Figure 14



Now if curve *M* is added to *WZJ* of Figure 12, the final result—curve *N* of Figure 15—of state financing is attained. The negative curve *M* overwhelms *WZJ* for the low assessed valuation districts and gives them a net deficit position, or, stated differently, they pay the taxes to support the system. Curve *M* will continue to subtract from *WZJ* until *M* becomes zero (point  $m_0$ ). At that point *N* will equal *WZJ*. Beyond that point the position level of *M* will continue to add onto *WZJ*. Curve *N* indicates the final result of state-level financing and taxation with the low assessed valuation districts paying for the program and the high assessed valuation districts receiving the funds.

Figure 15



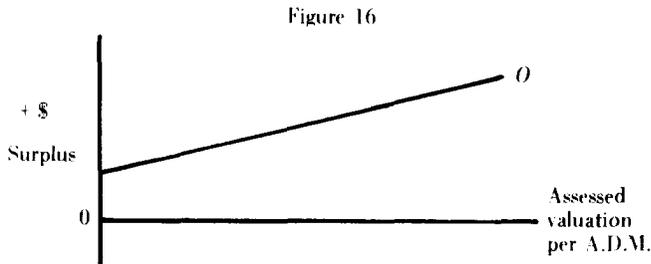
### Local Financing

Although this article pertains to the state funding system, it is interesting to note the result of adding local funding onto what has been found regarding the state system. The Nebraska system allows local districts to

spend additional funds beyond those provided by the state. This term can be expressed as the local tax rate times the assessed valuation, or:

$$(18) \quad t_p (\text{Assessed Property Valuation}).$$

The effect of this term is shown by line *O* in Figure 16 with the local expenditures being greater the higher the assessed valuation:



By adding curve *O* to curve *N*, *P* is attained, as depicted in Figure 18. The distance between *N* and *P* is the total cost to the district, while the distance between *P* and the horizontal axis is the total receipts.

### Summary

As the conclusions (stated at the beginning of the article) reveal, the total budget approach to the Nebraska educational finance system provides rather surprising results. At least, they are surprising if one believes that Nebraska's school finance conforms to the community and judicial decisions which declare that educational expenditures should not grow as district wealth increases. The Nebraska state structure produces funds for the wealthy districts, as measured by assessed valuation, by taxing the poor ones.

It is also apparent that local funding further exaggerates the inequities established by the state system.

While the inequities of Nebraska school finance should be of special interest to Nebraskans, the primary contribution of this article is the methodology of how to proceed in making equity studies, and the resulting formula in Table 1 to which other algorithms can be applied. Such algorithms need to be applied and empirical tests made to improve the results found here. The conclusions found above derive from the methodology, and empirical testing should be the next step.

Figure 17  
Nebraska Education Finance Terms

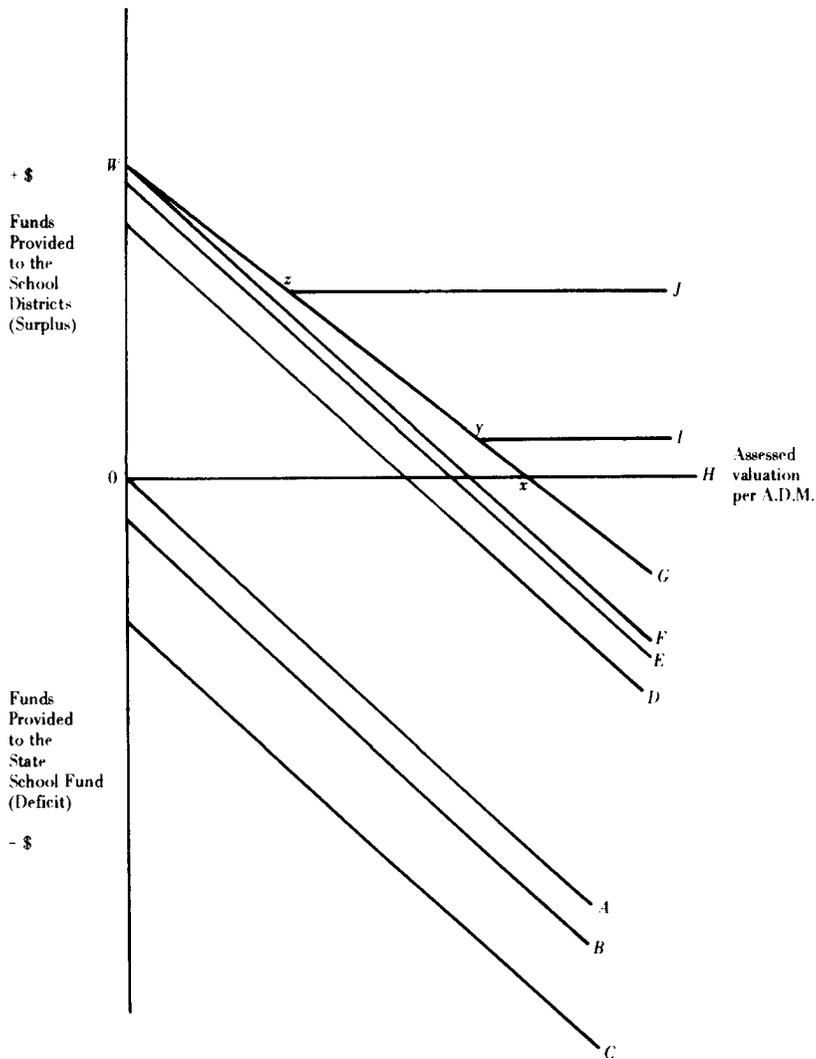
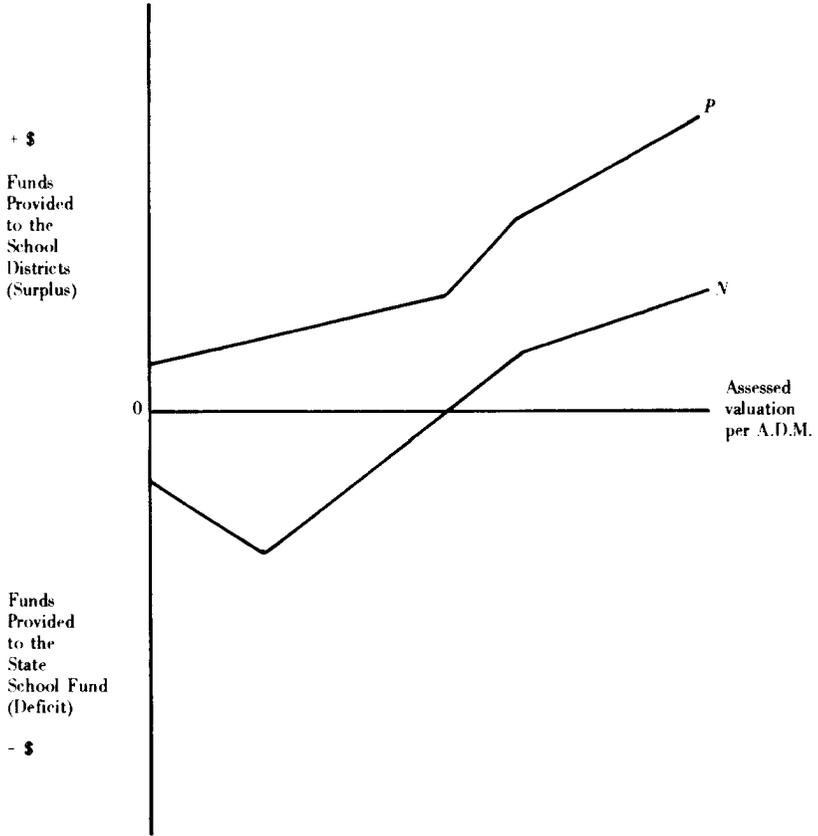


Figure 18  
 Final Result of Nebraska Educational Finance System



N = State Educational Finance System  
 P = State Plus Local Finance System  
 P-N = Finance cost to the district

Table 1  
Nebraska Education Formulation

<u>Term Name</u>	<u>Formula Term</u>	<u>Affected by Underfunding<sup>1</sup></u>	<u>Legal Reference<sup>2</sup></u>
(1) Equal Rate Levy	- (0.012) (Assessed Valuation)	X	79-1338 79-1335
(2) Flat Foundation Aid	- [17.50(N <sub>2</sub> ) + 35(N <sub>3</sub> ) + 42(N <sub>4</sub> ) + 49(N <sub>5</sub> )]	X	79-1334 79-1338
(3) Accountable Receipts	- [Accountable Receipts]	X	79-1338
(4) Accountable Receipts	+ [Accountable Receipts]		79-1339
(5) Flat Foundation Aid	+ [17.50(N <sub>2</sub> ) + 35(N <sub>3</sub> ) + 42(N <sub>4</sub> ) + 49(N <sub>5</sub> )]		79-1334
(6) Flat Grant	+ [225(N <sub>2</sub> ) + 450(N <sub>3</sub> ) + 500(N <sub>4</sub> ) + 550(N <sub>5</sub> )]	X	79-1336.1
(7) Added Flat Grant	+ [32(N <sub>1</sub> )]		79-4160
(8) Population Density Compensation	+ .20 [225(N <sub>2</sub> ) + 450(N <sub>3</sub> ) + 500(N <sub>4</sub> ) + 550(N <sub>5</sub> )]		79-1336.2
(9) Increased Membership Compensation	+ .02 [225(N <sub>2</sub> ) + 450(N <sub>3</sub> ) + 500(N <sub>4</sub> ) + 550(N <sub>5</sub> )]		79-1333.01
(10) Transportation Compensation	+ .25 [225(N <sub>6</sub> ) + 450(N <sub>7</sub> ) + 500(N <sub>8</sub> ) + 550(N <sub>9</sub> )]	X	79-1337
(11) Degree Incentive	+ [350 (Ph.D.) + 250(M.A.) + 150(B.A.)]		79-1340
(12) Deprived Incentive	+ [225(N <sub>10</sub> ) + 450(N <sub>11</sub> ) + 500(N <sub>12</sub> ) + 550(N <sub>13</sub> )]	X	79-1337
(13) Gifted Incentive	+ .25 [225(N <sub>14</sub> ) + 450(N <sub>15</sub> ) + 500(N <sub>16</sub> ) 550(N <sub>17</sub> )]	X	79-1337
(14) Summer School Incentive	+ 18(N <sub>1</sub> )		79-1340
(15) High Assessed Value Districts Payment	+ [(Foundation Aid + Acct. Receipts) - (Sum of 1-14)]		79-1339
	Term ignored if less than zero		79-1334.01
(16) Property Tax Replacement	+ t <sub>p</sub> (Assessed Valuation of Property Exemptions)		77-202.21 77-202.25

Table 1 (continued)

(17)	Sales and Income Tax	$- [t_s(\text{Assessed Sales}) + t_i(\text{Assessed Income})]$	79-1332
(18)	Local Financing	$+ t_p(\text{Assessed Property Valuation})$	Too numerous to cite
			Legal preferences 79-1342 for underfunding 79-1343

<sup>1</sup>Sources: Nebraska Department of Education, *Nebraska School Laws* (Fremont, Nebraska: Hammond & Stephens Co., 1978); and C. Cale Hudson, *Understanding Public School Finance* (Lincoln, Nebraska: Bureau of Educational Research, University of Nebraska, 1977).

<sup>2</sup>Source: Nebraska Department of Education, *Nebraska School Laws*.

Symbols:

$N_1$  = No. of A.D.M.;  $N_2$  = No. of kindergarten A.D.M.;  $N_3$  = No. of 1-6 A.D.M.;  $N_4$  = No. of 7-8 A.D.M.;  $N_5$  = No. of 9-12 A.D.M.

$N_6 - N_9$  = No. of A.D.M. for Transportation Compensation.

$N_{10} - N_{13}$  = No. of A.D.M. for Deprived Incentive.

$N_{14} - N_{17}$  = No. of A.D.M. for Gifted Incentive.

$t_p$  = Local property tax rate.

$t_s$  = Sales tax rate.

$t_i$  = Income tax rate.

$X$  = Terms affected by underfunding.