

A COMPREHENSIVE SCHOOL FINANCE PLAN
FOR NEW HAMPSHIRE'S PUBLIC SCHOOLS
Augenblick Report

I. INTRODUCTION

This report presents a comprehensive school finance plan which is designed to achieve greater excellence and equity in education, and which could be implemented without new taxes. The plan contains three elements: (1) clearly stated goals to be achieved, (2) a comprehensive and understandable method to meet those goals, and (3) an evaluation process which measures the extent to which the goals have been attained.

At present, New Hampshire has a patchwork of state aids to school districts which are distributed in a variety of ways. There has been little attention given to overall goals or an overall strategy, and even less attention paid to the outcomes of these distribution patterns.

This report examines the current school finance system in New Hampshire and suggests that substantial improvements can be accomplished through a combination of several efforts: (1) an improved system of determining pupil needs, (2) a more comprehensive view of local fiscal capacity, (3) a union of various state aids into a single formula, and (4) a reasonable increase in state funds for education.

The remainder of this section will recommend goals and priorities for school finance in New Hampshire, and examine weaknesses within the

current system. Section II begins the presentation of the school finance plan by describing how pupil needs will be determined; Section III explains how the fiscal capacity of school districts will be measured; Section IV describes the various state aids which are included in the plan and outlines the cost of the plan; Section V explains how the new formula works and the concluding section describes an evaluation process which will relate the plan to stated goals.

Goals for School Finance in New Hampshire

Major priorities of an improved school finance plan should be increased equity for students and taxpayers, and improvement in the quality of education for youth. A comprehensive school finance plan in New Hampshire should increase educational opportunities for students in those districts where opportunities are limited, and reduce tax burdens in communities where those burdens are excessive and the ability to raise money locally is low. It is important to note in this context, that the emphasis is upon increasing educational opportunities where they are limited, and not upon equalizing opportunities by restricting school districts from providing additional opportunities when they wish to do so.

A school finance plan should stimulate improvement in the quality and scope of education offered to New Hampshire students. An examination of the new High School Standards, the Middle School Recommended Standards, and Category IA of the Elementary Standards reveals a solid grasp of an adequate level of education which should be available to all New Hampshire students. Progress towards meeting

these standards is a worthwhile goal. In addition, the State Board of Education may wish to target specific areas of weakness for improvement (i.e., gifted and talented education, kindergarten, economic education), and require school districts to show evidence of such improvement to qualify for state aid.

Structural Issues in the New Hampshire School Finance System

The current school finance system in New Hampshire does not address itself to these goals of equity and quality, other than by making passing references to educational opportunities in the Foundation Aid Law and the Special Education Law. As a consequence of this lack of a cohesive view of the goals of school finance, and a lack of concentration of available state resources to achieve those goals, a number of structural deficiencies have emerged in the past several decades.

1. New Hampshire's system of providing support for elementary/secondary education is complicated by (a) the existence of numerous aid programs and (b) the interaction between direct aid programs and indirect property tax relief programs. The complexity of the approach makes it difficult to understand and evaluate the school finance system in New Hampshire. The school aid programs in their totality are not very sensitive either to the variation in the fiscal capacities of school districts, or to the educational needs of a district's pupils.

2. The Foundation Aid program approach used in allocating New Hampshire's support of schools can work to assure both the equity and adequacy of the school finance system. However, New Hampshire's

foundation program, which in many states is the primary source of state aid, provides only a small portion of state support to schools in the state.

3. The largest single source of school support from the state is the business profits tax distribution (school share), an indirect program designed to provide property tax relief. The largest direct state school aid program is basic aid for special education, which allocates more than twice the funds distributed by the foundation aid program.

4. Some of the direct and indirect aid programs use a distribution mechanism that is sensitive to the property wealth of school districts (business profits tax, basic aid for special education and the foundation aid program). Other programs do not consider the wealth of school districts in allocating support (sweepstakes aid, vocational tuition and transportation aid, and building aid). Those programs that do consider the wealth of school districts do so in different ways; they each have different effects on school districts with the same ability to provide local support. No approach (except the allocation of federal Chapter II funds) is sensitive to variations in community income levels.

5. Hold harmless clauses in the state's two largest aid programs (business profits tax and special education aid) severely inhibit the equalizing intent of the formulas.

6. The low level of foundation aid funding and a problem in the cooperative school law has had the unintended result that currently nearly one third of the total foundation aid appropriation goes to a single community whose total property wealth would appear to make it eligible for only a small amount of the current appropriation.

II. DETERMINING EDUCATIONAL NEEDS

One indicator of an effective educational finance system is a positive relationship between available revenues and the educational needs of the pupils in each district. That is, those districts which contain higher proportions of students whose educational programs require greater costs should have higher revenues available. The present foundation aid program takes a step in this direction by recognizing that it costs more to educate a high school student than an elementary student, and consequently allows an additional weight for high school students. This additional weight is calculated by comparing actual statewide average costs (as reported by school districts) for high school students to the statewide average for elementary students. In the 1981-82 school year the elementary cost per pupil was \$2093, and the high school cost was \$2517. Thus, high school students are provided an additional weighting factor of 20%. Each elementary pupil is counted as 1, and each high school student is counted as 1.2.

The current school finance system also recognizes the additional cost of special education and vocational education through separate funding formulas. Yet a comprehensive weighting process is lacking, which, combined with a low level of state funding, results in a very low correlation between the needs of students (defined by weighting these students based upon actual costs) and the state/local revenues available for their education. A correlation of only .149 was found, which means that only 2% of the variation in revenues

available to students is accounted for by variations in pupil needs. The new plan addresses this issue by recommending that special education and vocational education students also receive additional weights.

Calculation of Weights

In each case, weights for the plan were established by analyzing the best available data. One of the reasons we recommend that this plan take effect in the second year of the biennium is the need to improve data collection and analysis. Nonetheless, despite the data limitations which will become clear throughout this chapter, we believe we have established a reasonably accurate picture of costs and weights.

1. Special Education Weights

The primary source of data for calculating special education weights was the State Department of Education's Special Education Information System (SPEDIS). Due to limitations in Departmental staff time and access to historical information, we used student census reports from December 1, 1983. These reports provided information on students in local placements, and students in out-of-district placements. The out-of-district placements included annual rates for the costs of programs for most of those students. A separate printout provided the numbers and annual rates of out-of-state placements. By subtracting the numbers and rates of all out-of-district placements from the reported 1981-82 total costs of special education, it is possible to arrive at a cost of special education for in-district placements. This process resulted in an additional weight of .8 for

in-district special education costs. It cost slightly over \$1,600 per pupil for in-district special education programs, in addition to the basic \$2093 elementary cost.

A second weighting category established for special education students is out-of-state placements. The annual average cost for each of these 200 plus students of slightly over \$15,000 leads to a weighting factor of 6. (The elementary cost of \$2093 must be subtracted from the \$15,000 figure, since these are fully residential placements.)

The third weighting category for special education is for in-state programs which are also out-of-district. This is the most troublesome category since it includes everything from low-cost pre-school speech and language programs provided in local parochial schools to expensive residential placements in Crotched Mountain, Cedarcrest, Philbrook or Laconia State School. We have estimated, on the basis of annual rates for residential placements and full self-contained school programs for over 800 students, and on the basis of assigning an elementary cost for the other programs, a weight of 3 for these students.

While the method just described is adopted for this simulation, we recommend that the Department of Education establish a weighting system which weights special education students in four categories: (1) pre-school programs, (2) in-district programs, (3) out-of-district day programs, and (4) residential programs. While this system will not make dramatic changes in the distribution of state aid from this simulation, it is still an improved and more accurate approach. The concept, the policy of weighting special education students, is the

important consideration. Once that policy decision is made, the most technically accurate system can be developed. Accounting and reporting procedures are already in place or can be easily implemented to accommodate such an approach.

2. Vocational Education Weights

The State of New Hampshire has made a substantial investment in vocational education, through the 20 Center Regional Center Plan, and the development of sub-centers and satellite vocational programs. State statutes provide for the state to pay 75% of the tuition, plus transportation costs, of students attending regional vocational centers from "sending" districts. The state has paid for the construction and equipping of regional centers, and the districts in which the centers are located are then responsible for operating costs, including the costs of their own students who participate in the center's vocational programs.

Several stresses in the vocational education programs are causing a reevaluation of the plans and funding programs currently in place. While the weighting system which is recommended here does not address capital funding issues, or issues of ways to provide vocational education programs, it does address the issue of providing for each district additional weighting for the costs of its vocational education students, whether these districts are "sending" or "receiving" districts.

Information provided by the Division of Instruction indicates that, in 1982-83, the average per pupil cost of vocational education programs was \$714, ^{additional} resulting in an additional weight for each vocational education student of .34.

III. MEASURING FISCAL CAPACITY

Another indicator of an effective school finance system is a negative relationship between a district's wealth and the amount of state aid it receives. The lower the per pupil wealth of the district, the greater should be the per pupil state aid the district receives. With the exception of the few communities which receive foundation aid, there is very little difference between districts of varying wealth in the state aid they receive. In fact, many districts of high wealth receive greater amounts of state aid than their less wealthy counterparts.

Like most other states New Hampshire has relied upon property wealth, measured as equalized valuation per pupil, for its determination of the fiscal capacity of school districts. This plan recommends a more comprehensive view of local fiscal capacity. In addition to property wealth (which will be measured in terms of equalized valuation per weighted pupil), the formula incorporates income wealth (measured by the median family income of the district) and the equalized school tax rate of the district, as additional indices of fiscal capacity.

Since local property forms the basis for the greatest proportion of school revenues, any formula which addresses relative wealth measures must include local property as a factor. The monies to pay the property tax come from income, however, and therefore, a comprehensive fiscal capacity measure should include a community's income wealth. For example, communities with lower property wealth, but higher income levels, actually possess greater fiscal capacity

than a simple view of property values would indicate. Conversely, a community with relatively high property values but low income wealth has less capacity to absorb increases in property taxes than might be expected. Finally, if a community has a high tax rate (and particularly if relatively large increases in tax rates produce relatively small gains in revenues), its capacity to pay for education is dramatically limited. Communities which are in the higher reaches of the state's tax rates, and which can provide little revenue with increases in their tax rate are in greatest need of relief.

In basic terms, the lower the per pupil property wealth of the district in relation to the state average per pupil property wealth, and the lower the median family income in relation to the state median family income, and the higher the local school tax rate in relation to the state average school tax rate; the lower the fiscal capacity of the district. In order to provide state aid to school districts on the basis of need, these more comprehensive measures of both pupil needs and fiscal capacity are vital.

In order to calculate the fiscal capacity of each school district, the following steps are carried out:

- (1) The state average property wealth per pupil (state total equalized valuation divided by the state weighted pupil count) is divided by the district's property wealth per pupil (total local equalized valuation divided by the local weighted pupil count);
- (2) The state median family income is divided by the local median family income, and the resulting number is

multiplied by the number from the property wealth calculation; and

- (3) That resulting number is multiplied by a number taken from the following table which combines relative tax effort and the revenue produced by that effort.

<u>LOCAL REVENUE PER WEIGHTED PUPIL</u>	<u>TAX RATE</u>		
	<u>Low</u>	<u>Medium</u>	<u>High</u>
	Less than .9	.9-1.2	Over 1.2
Low ---			
Less than .9	1.00	1.25	1.50
Medium -----			
.9-1.12	.75	1.00	1.25
High -----			
Over 1.2	.50	.75	1.00

The important characteristic to be considered in the development of a tax effort index is the relationship between the tax rate and the revenue produced. The greatest need is clearly exhibited by those districts which have a high tax rate and a low level of local revenues available to them. At the other end of the scale, the least need is exhibited by those districts which have low tax rates and a high level of local revenues available.

The inclusion of a tax effort index will also encourage districts to maintain reasonable tax efforts, and to use increased state aid to improve education, rather than purely for tax relief. While we

anticipate that local communities will differ in the "mix" of tax relief and additional spending they may choose, the inclusion of this tax effort index should encourage a balanced approach.

Graphically then, the fiscal capacity component of the formula operates in the following manner:

$$\begin{array}{rcccl}
 \text{State Avg.Eq.Val.} & & \text{State Median Family} & & \text{Tax Rate} \\
 \text{Per Weighted Pupil} & & \text{Income} & & \text{Factor} \\
 \text{-----} & \text{X} & \text{-----} & \text{X} & \text{from} = \text{Fiscal} \\
 \text{Local Eq.Val.Per} & & \text{Local Median Family} & & \text{Table} = \text{Capacity} \\
 \text{Weighted Pupil} & & \text{Income} & & \text{Factor}
 \end{array}$$

In this process, the lower the fiscal capacity of the district, the higher is the factor generated by the formula. This fiscal capacity number is later multiplied, as shall be seen, by a fixed percentage of local foundation costs. Districts with lower fiscal capacity will then receive a greater proportion of their foundation costs, while a district with greater fiscal capacity will receive a lesser proportion.

The data used in determining the fiscal capacity measure include the 1982 total equalized valuation of each community as published by the Department of Revenue Administration, median family income from the 1980 Federal Census (which is updated every two years for revenue sharing purposes), and 1982 Equalized School Tax Rates as published by the State Department of Education.

IV. DETERMINING STATE FUNDING LEVELS

This plan recommends that the state determine and fund a specific percentage of the foundation costs of a district with average fiscal capacity. A district of "average" fiscal capacity would have a factor of 1. Districts with less than average fiscal capacity will have a factor greater than one, and districts with fiscal capacity greater than average will have a factor less than one.

In this report, 8% of an average district's foundation costs are provided through state aid. Districts with lower fiscal capacity will have more than eight percent of their foundation costs provided, and districts with higher fiscal capacity will have less than eight percent of their foundation costs covered. The specific percentage of costs to be provided by the state to the district is determined simply by multiplying the fiscal capacity factor by the percentage of aid provided to an average district.

The cost of this program with an 8% commitment to the average district is \$44,711,572. In addition, since the plan calls for the combining of several current aids into this formula, a hold-harmless clause (which should be phased out through a four or five year period) should be incorporated to prevent fiscal dislocation among wealthier districts which have benefited from the current system. The initial cost of this hold-harmless clause is \$2,911,377 for a total of \$47,622,949. As the hold-harmless clause phases out, those funds can then be used to maintain or increase the percentage of foundation costs in the overall equalizing formula.

There are four major state aid programs that we recommend be combined into this formula:

(1) Current Foundation Aid	--	\$ 3,656,266
(2) Direct Special Education Aid	--	8,118,312
(3) Sweepstakes Aid	--	3,000,000
(4) Business Profits Tax (School Share)	--	18,956,954

		\$33,731,532

Of these four aids, all but sweepstakes (which is distributed on a straight per pupil basis) are distributed on some kind of equalizing basis. Only foundation aid has a full equalizing effect, since both special education aid and the business profits tax have hold-harmless clauses which severely inhibit their equalizing intent. Even foundation aid is hampered by the problem in the cooperative school law discussed earlier.

Since additional weights are assigned to special education students, the incorporation of direct special education aid into an overall formula makes good sense. In addition, the state needs to begin thinking in terms of an overall educational policy rather than in terms of funding isolated programs.

The business profits tax is currently distributed to cities and towns and applied against the municipal, county, and school tax rates in the proportion to the share of the property tax each of these units required of the total local property tax in 1969. The school share of the business profits tax is an indirect property tax relief aid to education. After fifteen years of operation, it is time to review that measure, and we believe that the school share of the Business Profits Tax should be incorporated into the major equalizing formula for state aid to school districts.

In order to implement this formula at 8%, \$13,891,417 in new state funds is required.

There are three state aid programs which we believe should remain separate:

- (1) Catastrophic aid to special education
- (2) Transportation aid for vocational education
- (3) Building aid.

The state should continue its commitment to assisting school districts with very expensive special education placements. Currently, the state formula provides that the state will reimburse 80% of special education placement costs above \$9000 per student. This formula assists districts without providing improper incentives to place students outside the district. If the formula is not fully funded (which it has not been) an equalizing factor takes effect to concentrate the reduced funds to the needier districts. We believe this is an appropriate formula which should be funded at a higher level.

At the present time, approximately \$1 million is appropriated for vocational tuition and transportation aid. Full funding requires the state to pay 75% of the tuition of students attending regional vocational centers from sending districts, plus those students' transportation costs, and requires an additional two million dollars. Since all vocational students will be weighted in the equalizing formula, a separate tuition aid program is not necessary. Transportation aid should continue. Like most states, New Hampshire excludes transportation from the calculation of school operating costs. Unlike other states, New Hampshire does not have a

transportation aid program, other than this assistance in vocational education. We recommend that the \$1,000,000 appropriation be left in place and used to pay transportation costs of vocational education students.

Finally, the state should reexamine its building aid program. It makes good sense to keep capital expenditures separate from operating expenditures, and to keep this state aid program separate also. Nonetheless, even building aid programs should reflect a policy position of providing higher percentages of aid to more needy districts. Currently, the basic building aid program provides 30% of the principal payments, regardless of the fiscal capacity of the district. Cooperative districts and Authorized Regional Enrollment Area (AREA) districts receive higher percentages up to 55%, not based upon fiscal capacity, but rather upon the number of pre-existing districts which have agreed to join the Coop. or AREA district. We recommend that the state fulfill its current obligations under the current law, but in the future consider an equalizing formula for building aid. For example, the basic 30% could be kept for the district with average fiscal capacity, and higher or lower percentages could be provided for districts within certain ranges of either above average or below average fiscal capacity. The purpose of establishing ranges would be to insure predictability of aid for school districts, unless they have major shifts in their capacity to finance education locally.

V. PULLING IT ALL TOGETHER: HOW THE FORMULA WORKS

1. A foundation cost is determined for each school district which is related to the educational costs of different types of students within the district.

- Weights are established for students to determine the additional cost of programs for secondary students, special education students, and vocational education students.

- The foundation level for each district is calculated as the product of the statewide average cost per elementary pupil and the number of weighted pupils.

2. The state establishes a specific percentage of the foundation costs of a district with average fiscal capacity which will be provided through state funding.

- The state share should be consistent over time.

- The state share should establish the state appropriations.

3. The allocation of state aid to each school district should be sensitive to the fiscal capacity and tax efforts of districts.

- A fiscal capacity factor is calculated for each district by:

(a) dividing the statewide average per weighted pupil property wealth by the local property wealth; (b) multiplying that figure by the ratio of the state's median family income to that of the local district; and (c) multiplying that figure by the number obtained from an established tax table.

- The fiscal capacity factor is multiplied by the state

established percentage, and that adjusted percentage is multiplied by the district's foundation costs to determine actual state support for the district.

4. If appropriations are less than the amount required, the target state percentage should still be used to allocate state aid to individual districts, with a constant employed to adjust each district's percentage of aid.

- The constant is calculated, if necessary, to meet an appropriation less than that required by the established percentage, such that each district's adjusted percentage is reduced (i.e. if the constant is .02, a district which has an adjusted percentage equal to .30 is reduced to .28, while a district with an adjusted percentage equal to .03 is reduced to .01).

- In no case may the constant applied reduce a district's eligibility below zero. No recapture provision is included in this formula.

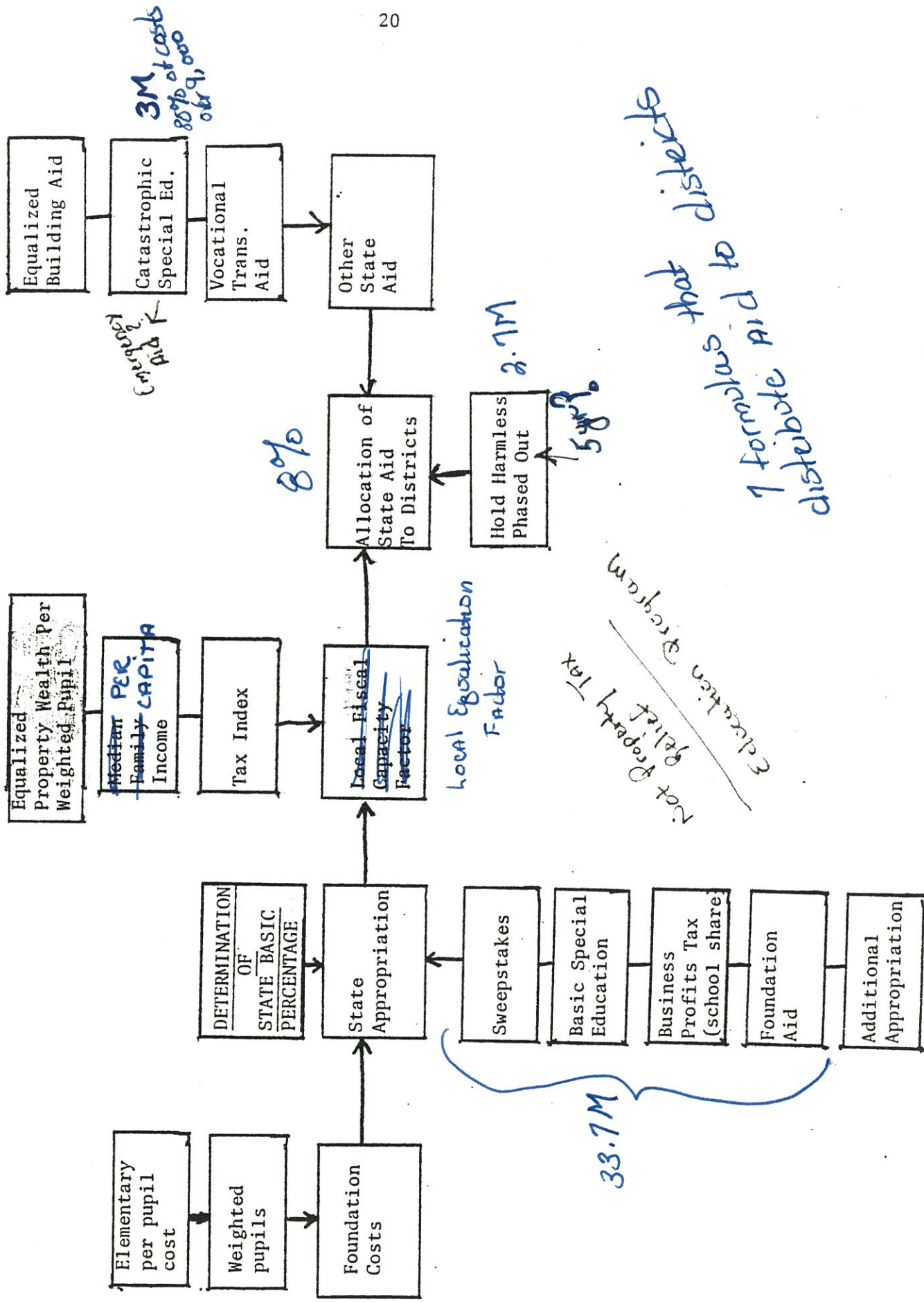
5. State support for the new foundation program should include present appropriations from Sweepstakes Revenue, Business Profits Tax Revenue (school share), special education basic support, current foundation aid support, and additional appropriations from the General Fund.

6. A hold-harmless clause, to be phased out over a four or five year period, should be included.

7. The allocation of Special Education Catastrophic Aid and Building Aid should be kept separate from the foundation program; although state Building Aid should be sensitive to the fiscal capacity of school districts.

8. Vocational Tuition and Transportation Aid appropriations should be used for transportation of vocational students. The state should also consider policy decisions about state support for overall transportation costs of school districts.

PROPOSED NEW HAMPSHIRE SCHOOL FINANCE SYSTEM



CALCULATING

THE FOUNDATION FORMULA

I. Calculating Local Foundation Costs

A. Number of Total Students + (# of High School Students x .2) + (# of Vocational Education Students x .34) + (# of In-District Special Education Students x .8) + (# of In-State Special Education Students x 3) + (# of Out-Of-State Special Education Students x 6) = Number of Weighted Pupils

B. Number of Weighted Students x Average Elementary School Costs = Foundation Cost \$2093

IV. Calculating Total State Appropriation

Total Of Local Foundation Costs +
Total Hold Harmless Costs =
Total State Appropriation

II. Calculating Fiscal Capacity Factor

A. State Average Equalized Valuation Per Weighted Pupil + Local Average Equalized Valuation Per Weighted Pupil

X

B. State Median Family Income + Local Median Family Income

X

C. Tax Index From Table = Fiscal Capacity Factor

Equalization

Fiscal 82 Expenditures

III. Calculation Of The State Foundation Aid For Individual Districts

A. Fiscal Capacity Factor x State *Participation Rate*

X

B. Local Foundation Cost = State Aid

C. If State Foundation Aid Is Less Than Aid Previously Received, Add Funds To A Total Equal To Previous Aid (to be phased out)

CALCULATING THE FOUNDATION AID
FOR A MYTHICAL SCHOOL DISTRICT

I. Foundation Costs

Total Number of Students	1000	1000
High School Students	400 x .2	80
Vocational Education Students	100 x .34	34
Special Education In-District	100 x .8	80
In-State Special Education	10 x 3	30
Out-Of-State Special Education	3 x 6	18
		<u>1242</u> Weighted Students

		State Average Elementary Cost Per Pupil		Local Foundation Cost
Weighted Pupils	X	\$2093	=	\$2,599,506
1242				

II. Fiscal Capacity

Property Wealth		Income Wealth
$\frac{138,000}{97,000} = 1.42$	X	$\frac{19,700}{17,500} = 1.12$

REVENUE / PUPIL x TAX EFFECT

~~Tax Index~~

~~1.25~~

$\frac{2000}{1050} \times \frac{15.50}{12.00}$

Equalization

~~Fiscal Capacity Factor~~

Factor

~~1.988~~

III. State Aid

<i>Equalization</i>		<i>Participation</i>	
Fiscal Capacity Factor		State Percentage	Adjusted Percentage
1.988	X	.08	= .159

Adjusted Percentage		Local Foundation Costs		State Aid Entitlement
.159	X	\$2,599,506	=	\$413,425

VI. EVALUATION OF THE SCHOOL FINANCE SYSTEM

Earlier, we recommended that several goals be established for the school finance plan in NH. An evaluation process which measures progress towards these goals is an essential component of such a plan.

Several of these recommended goals are susceptible to statistical analysis. Changes in tax rates and expenditures, relationships between revenues or spending and fiscal capacity, pupil needs and tax efforts can be measured by correlation analysis, multiple regressions, range and 95-5 percentile analysis, and other statistical methods.

Other goals can be measured through visitations to schools and reports from those schools. Some of these goals include progress in meeting state standards, changes in curriculum offerings, class size, teacher experience and degrees, improvements in facilities, and other "input" factors considered important to the educational process.

Finally, an evaluation system should include some studies of "output" measures, such as college attendance rates, employment opportunities, graduates' attitudes towards the education they have received, employers satisfaction with graduates, and success in college and at work. These measures will be difficult and expensive to carry out, but random survey samples may suffice. It may require an annual sampling over a number of years to gain significant insight into these areas.

If a statewide achievement testing program is implemented, this test may also provide data to measure progress towards student achievement in specific learning areas such as reading and math.