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ABSTRACT

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Traditional ways of funding our public schools are now under challenge throughout the nation. Armed with the equal protection clause of the Federal Constitution, judges are handing down decisions requiring school taxes and expenditures to reflect State wealth rather than variations in local wealth. Voters in rich and poor districts alike are threatening political reprisals for increases in property tax rates. In a few localities, voters have been forcing schools to close by refusing to approve their budgets. As the attack on present methods of financing schools has unfolded, attention has been focused increasingly on three issues: (1) the fiscal disparities in current school finance systems; (2) ways of insuring fiscal equity in restructured school finance systems; and (3) the fiscal and educational consequences of substituting fiscally equitable methods for present taxing and spending practices. This report seeks to examine these issues as they apply to Connecticut. (Author)

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NINE MODELS OF SCHOOL FINANCE REFORM: A SIMULATION ANALYSIS IN CONNECTICUT

by

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Introduction

Traditional ways of funding our public schools are now under challenge throughout the nation. Armed with the equal protection clause of the federal Constitution, judges are handing down decisions requiring school taxes and expenditures to reflect state wealth rather than variations in local wealth. Voters in rich and poor districts alike are threatening political reprisals for increases in property tax rates. And in a few localities, voters have been forcing schools to close by refusing to approve their budgets.

As the attack on present methods of financing schools has unfolded, attention has been focused increasingly on three issues: first, the fiscal disparities in current school finance systems; second, ways of insuring fiscal equity in restructured school finance systems; and third, the fiscal and educational consequences of substituting fiscally equitable methods for present taxing and spending practices. This report seeks to examine these issues as they apply to Connecticut.

Disparities in Connecticut School Finance

Connecticut's prevailing method of funding public education results in fiscal disparities that rival some of the worst in the United States. Nothing demonstrates this more powerfully than the fact that there is very little relationship throughout



Connecticut between implicit school tax effort and local school revenue per pupil. This means, of course, that many school districts can raise a relatively great amount of revenue at very low implicit tax rates while many other districts must impose very high implicit tax rates to raise only relatively small amounts of revenue. Greenwich, for example, raises \$129 per pupil per implicit school tax mill while Canterbury raises a mere \$16 per pupil per implicit school tax mill, a difference of 706 percent!

Significantly, Connecticut does almost nothing to reduce disparities between local tax effort and local revenue yield. Even when compared with other states in New England, Connecticut provides a very low share of school district revenues, on the average less than 27 percent. Moreover, most of the aid supplied comes in the form of a flat grant which is the same in rich and poor school districts alike. principal consequences of this aid system are twofold. First, public education in Connecticut must be supported primarily by the local property tax, a revenue instrument which is both regressive and often highly selective in its impact and incidence. Second, expenditures on each child's education vary grossly and without any rational consideration of differences in educational need from one district to the next. During the 1970-71 fiscal year, for example, per pupil current expenditures ranged from a high of \$1,489 in Darien to a low of \$568 in Griswold.

Restructuring Connecticut School Finance

The blatant disparities and inequities of Connecticut's school funding system could be eliminated by reassigning taxing and spending responsibilities between the State and its local school districts. The alternatives for reassignment range from full State assumption of all public school costs to complete local assumption with school districts restructured in such a way that all would have essentially equal educational needs and fiscal resources. This study, however, considers a less radical alternative, one which bears limited resemblance to Connecticut's current funding system but which can meet the dual objectives of abolishing interlocal fiscal disparities and reducing dependence upon the regressive and inelastic property tax. This alternative is joint State-local funding with variable equalization (percentage equalization) of inter-district variations in fiscal conditions like tax burdens and wealth.

Under variable equalization, State aid would be distributed among school districts according to the following general formula:

This means that three factors would determine the amount of State aid received by all school districts. One is the benchmark expenditure level, an expenditure base which the



State would support in varying degree in all school districts. The degree of support would be calculated by multiplying the benchmark expenditure level by two other factors, the State support fraction and some index of local fiscal condition. The State support fraction specifies the share of the benchmark expenditure level to be funded by the State in all school districts. This share, however, is increased or reduced according to an index of local fiscal condition. This index typically compares school district fiscal capacity or tax effort to the State average. Thus, all other things being equal, variable equalization will result in fiscally deficient school districts receiving more State aid than those that are fiscally sound.

It is important to recognize, however, that four conditions must be met before variable equalization can insure that local school funding reflects State wealth and meets prevailing educational needs. First, the State must control and assume full responsibility for all capital outlays and debt retirement. Second, the State must support about 90 percent of all current expenditures in fiscally average school districts. Third, the State must not allow any district to exceed some expenditure base or benchmark by more than 10 percent unless that district is willing to compensate all other districts by whatever amount it elects to surpass the ceiling. And fourth, the State must insure that its aid is distributed to students in a manner which explicitly recognizes their widely divergent educational needs.

Assessing Impact of Variable Equalization

In order to assess the impact of variable equalization, this study analyzes nine different variable equalization aid formulas. All nine formulas assume that the State would fund 90 percent of some expenditure benchmark in all school districts of average fiscal condition. Moreover, all assume that the State would impose an expenditure ceiling at 110 percent of any benchmark expenditure level. Each formula, however, uses a unique definition of fiscal condition.

Model One

Model One defines fiscal condition as the ratio of local to State wealth per pupil in average daily member-The principal biases of this definition are ship (ADM). twofold. First, it assumes that property wealth is indicative of wealth in general. This is not the case, however, in school districts having an unusually great amount or an exceptionally small amount of nonresidential property wealth. A second bias of this definition is that it weights all pupils equally, thus assumes that the cost of providing equal educational opportunity is related directly to student numbers. This, however, will not be the case in districts having relatively high fixed operating costs, in districts where the average cost curve is declining, or in districts having a relatively great number of students with severe learning disabilities.



Model Two

Fiscal condition in-Model Two is defined as the ratio of local to State equalized property value per capita. This definition, like the one used in Model One, will result in unequitable taxation whenever there is a significant divergence between real wealth and income.

Nonetheless, it has an important bias not present in the Model One specification; namely, it makes State aid contingent upon the apparent ability of school district inhabitants to pay taxes rather than upon enrollment burdens. The great virtue of the Model Two definition, however, is that it offers no support to the idea implicit in the Model One definition that all pupils should be counted as equals in calculating State aid.

Models Three and Four

Models Three and Four define fiscal condition in a fundamentally different manner than Models One and Two.

Model Three designates fiscal condition as the ratio of local to State income per pupil; Model Four measures fiscal condition as the ratio of local to State income per capita. It is self-evident, therefore, that both Models Three and Four will result in greater tax equity than Models One and Two whenever income wealth is disproportionately high in relation to property wealth. Similarly, both will result in less equitable taxation than Models One and Two whenever income wealth is



unusually low in relation to real wealth.

Models Five and Six

The definitions of fiscal condition used in Models Five and Six differ markedly from those used in Models One through Four. In Models One through Four fiscal condition is viewed as a function of wealth: in Models Five and Six, however, fiscal condition is treated as a function of tax effort. More specifically, Model Five defines fiscal condition as the ratio of State to local school tax effort; Model Six specifies fiscal condition in terms of the ratio of State to local total tax effort. Quite obviously, the fiscal condition definition employed in Model Five will work to the disadvantage of all school districts that do not make a relatively high tax effort, regardless f their taxable wealth. Similarly, the definition used in Model Six would permit the State government to channel extraordinary revenues to school districts which face relatively high municipal overburdens and would reduce the flow of funds to districts relatively free from such overburdens.

Models Seven, Eight and Nine

Models Seven, Eight and Nine use definitions of fiscal condition which share a common characteristic: all would have the effect of reducing some of the biases present in Models One through Six. Model Seven defines fiscal condition as the school tax effort-weighted ratio



of local to State property valuation per pupil in ADM. This definition, in short, assures that relatively great sums of State aid will be channeled only to those school districts that are both real property-poor and making a high tax effort; conversely it assures that school districts that are property rich will receive relatively low State aid, especially if they fail to tax themselves at a high rate.

Model Eight evaluates fiscal condition in a manner similar to Model Seven: as the total local tax effort-weighted ratio of local to State equalized property value per putil in ADM. This definition of fiscal condition, however, permits us to determine the consequences of developing a variable equalization system which recognizes the so-called municipal overburden problem. Under this definition of fiscal condition, State aid is conditioned not just by school district wealth and educational need but by local tax effort for both school and non-school purposes. Thus, all other things being equal, school districts which bear a high overall local tax burden will receive more State aid than those that bear a light total local burden.

Finally, Model Nine designates fiscal condition in the same fashion as Model One but double counts all pupils from families eligible to receive E.S.E.A. Title I aid or assistance from the federal Aid to Families with

Dependent Children Program. Unlike all the other definitions of fincal condition, this one acknowledges the fact that pupils from economically deprive households tend to be much more costly to educate them those from households of ordinary or superior affluence. The real cost of educating such pupils, of course, is debatable. Monetheless, Model Line's assumption that they are twice as costly is not entirely arbitrary one when considered in light of the fact that several States (New York and Minnesota, for enemple) have made somewhat similar assumptions in their school and formulas.

We now turn to discuss the revenue, expenditure and tax implications of our nine variable equalization finance models. Our discussion is based on a computer simulation analysis of data pertaining to the school finances of all Connecticut school a stricts operating during the 1970-71 fiscal year.

Variable Equalization and School Revenue

The revenue effects of our nine variable equalization models can be guaged, in part, through an examination of the fiscal condition indices resulting from each of their fiscal condition definitions. A summary of these indices for several different types of school districts is contained in Table 1. This summary indicates quite clearly that the revenue effects of any variable equalization finance system would depend in large measure

TABLE 1
SPIECTED FISCAL CAPACINE INDICES BY MODINA
AND SCHOOL DISTRICT SETS.

ಜಾತನೆಗಳ ಪಾರ್ವಿಕ ಬಗುವನ್ನು ಮಳಲ್ಗಡವನ್ನು ಕಳ	rata yez. metude e (.	,:::::::::::::::::::::::::::::::::::::	estant purchasement of)	
	Hodel 1	Podel II	radel III	Nother TV	nough v
<u>St.trs</u>	Index	Index	Index	Inde::	1:.do::
Central City					
Bridgeport	. 84	.60	.91	.66	1.34
Hartford	1.13	.56	1.06	.85	.93
New Haven	1,22	.89	1.19	.85	.67
Norwich	.58	.5.	1.10 .	.72	.75
Stumford	1.37	1.21	35,1	1.20	93.
apid Growth Suburb	C 35				
Dllington	.67	.93	.45	.47	.69
G) a tentury	. 7 5	.93	.89	1.07	.81
Montville	.81	1.05	.54	.66	1.08
Seignar	.00	.66	.78	.81	.70
Wilten	1.41	1.97	1.38	1.67	.97
Now Greath Schurks	<u>ar</u>				
Andover	.44	.57	.61	1.64	.50
Granby	.60	.78	. 84	1.07	.72
Greenwich	3.04	2.60	2.50	2.10	2.15
Manchester	.88	.26	1.01	.95	.95
Sprague	.95	.90	1.21	.73	.,2
Independent City					
Ansonia	.81	.71	.98	.83	1.11
Middletown	1.25	.97	1.00		1.39
Puthem	1.00	. 7 7	1. 7 5	1.31	1.54
Torrington	1.03	.82	1.10	.86	1.28
Winchester	.66	.63	.97	.65	.59
Bural	•			•	
Canterbury	.53	.67	.71	.67	.99
New Hartford	.84	. 99	1.12	.78	.79
Old Saybrook	1.65	1.98	. 79	.94	1.63
Oxford	.99	1.29	.81	.67	1.39
Sali sbury	2.5 5	2.27	1.43	.88	2.20



TABLE 1 (continued)

SELECTED FISCAL CAPACITY INLUCES BY MODEL AND SCHOOL DISTRICT TYPE

States .	Kodel VI Index	Heben Repul	Fødel VIII Index	Model IX Index
ntral City				anaganin di anan Pendanan an managan
Bridgeport	.63	1.09	.74	.66
Hartford	.67	1.03	.90	ີ.78
Hew Haven	.83	1.05	1.03	.80
Norwich	.74	.67	.66	.57
Stamford	.92	1.13	1.15	1.34
nid Growth Suburi	onn			
Ellington	~.97	.68	.82	.73
Glastonbury	.87	78	.81	.82
Montville	1.54	.95	1.18	.85
Somers	.97	.65	.79	.65
Wilton	1.09	1.19	1.25	1.57
ow Crowth Suburt	<u>nn</u>			
Andover	.64	.47	.54	.49
Granby	.94 .	.66	.77	.67
Greenwich .	1.80	2.60	2.42	3.34
Greenwich Manchester	1.80 1.09	2.60 .92	2.42 .98	3.34 .92
•				
Manchester	1.09	.92	.98	.92
Manchester Sprague	1.09	.92	.98	.92
Manchester Sprague dependent City	1.69 1.50	.92 .94	.98 1.23	.98 .98
Manchester Sprague dependent City Ansonia	1.69 1.50	.93 .94	.98 1.23	.98 .98
Manchester Sprague dependent City Ansonia Middletown	1.08 1.50 1.04 1.14	.92 .94 .96 1.32	.98 1.23 .93 1.20	.92 .98 .80 1.22
Manchester Sprague dependent City Ansonia Middletown Putnan	1.08 1.50 1.04 1.14 1.30	.92 .94 .96 1.32 1.27	.98 1.23 .93 1.20	.92 .98 .80 1.22 1.00
Manchester Sprague dependent City Ansonia Middletown Putnam Torrington	1.05 1.50 1.04 1.14 1.30	.92 .94 .96 1.32 1.27 1.16	.98 1.23 .93 1.20 1,15 1.00	.92 .98 .80 1.22 1.00 1.02
Manchester Sprague dependent City Ansonia Middletown Putnam Torrington Winchester	1.05 1.50 1.04 1.14 1.30	.92 .94 .96 1.32 1.27 1.16	.98 1.23 .93 1.20 1,15 1.00	.92 .98 .80 1.22 1.00 1.02
Manchester Sprague dependent City Ansonia Middletown Putnam Torrington Winchester	1.05 1.50 1.04 1.14 1.30 .97	.92 .94 .95 1.32 1.27 1.16 .63	.98 1.23 .93 1.20 1.15 1.00	.92 .98 .80 1.22 1.00 1.02 .70
Manchester Sprague dependent City Ansonia Middletown Putnam Torrington Winchester ral Canterbury	1.05 1.50 1.04 1.14 1.30 .97 .92	.96 1.32 1.27 1.16 .63	.98 1.23 .93 1.20 1.15 1.00 .79	.92 .98 .80 1.22 1.00 1.02 .70
Manchester Sprague dependent City Ansonia Middletown Putnam Torrington Winchester ral Canterbury New Hartford	1.05 1.50 1.04 1.14 1.30 .97 .92	.92 .94 .95 1.32 1.27 1.16 .63	.98 1.23 .93 1.20 1.15 1.00 .79	.92 .98 .80 1.22 1.00 1.02 .70

upon its definition of fiscal condition. Although all
the fiscal condition indices are correlated in a positive
direction, it is apparent that central city districts
would stand to gain the most from variable equalization
if fiscal condition were defined in terms of total tax
effort or in terms of the APDC-weighted pupil wealth
measure used in Model Mine. Central city districts,
however, would not fare nearly as well under variable
equalization in the event that fiscal condition were
defined on the very commonly-used per pupil wealth basis.
Rapid growth suburban districts, in centrast, would not
do very well if condition were estimated on a total tax
effort basis, but would do guite well if condition were
defined with respect to wealth per pupil or school tax
effort.

Even more than rapid growth suburban districts, independent city and rural school districts would receive relatively little State aid under a variable equalization finance system if that system defined fiscal condition in terms of total tax effort or with respect to some measure of educational need such as taxable wealth per AFDC-weighted student. Independent city and rural districts, however, would get relatively large amounts of State aid if fiscal condition were defined on any other wealth basis except income per pupil. But in marked contrast to all other kinds of school districts, slow growth suburban districts would be relatively unaffected

by variations in the definition of fiscal condition. This no doubt stems from the fact that these districts tend to be located in areas having not only a general balance between property wealth and income wealth, but also at least some of the educational need problems commonly associated with central city districts.

Thus far, we have seen that the redistributive impact of any variable equalization system would depend very much upon its definition of fiscal condition. Now, we will describe the actual amount of State aid that would be received by various kinds of school districts. Throughout our presentation, we will enamine the aid effects of our nine variable equalization models.

Moreover, for each model, we will show the amount of aid that would result if the State supported 90 percent of current per pupil expenditure benchmarks all set equal to the 10th, 50th, 65th, 75th and 90th percentile levels during the 1970-71 school year. These levels, respectively, are \$84, \$806, \$255, \$915 and \$1,054.

As Table 2-suggests, and as our simulation analysis proves, all nine of our variable equalization aid formulas would leave all school districts with absolutely mere current revenue from State sources than they received during 1970-71. If the 10th percentile expenditure were used, the amount of State aid would increase about 75 percent under Models One through Eight and about 92 percent under Model Nine, the AFDC-weighted pupil wealth formula.

TABLE 2

THE MEAN DIFFERENCE BETWEEN 1970-71 STATE AID AND SINOLATED STATE AID AT SELECTED 1970-71 CURRENT PER PUPIL EXPENDITURE LEVELS BY MODEL AND SCHOOL DISTPICT TYPE

	Additional Aid Per Pupil at Sclected Current Expenditure Levels				
District Type And Model	10th Per- centile	50th Per- centile	65th Per- centile	75th Per- centile	90th. Per- contile
Central City	•				
I .	\$ 186	\$ 479	\$ 524	\$ 578	\$ 704
II	192	489	535	590	717
III	181	470	514	568	693
īv	189.7	484	529	584	711
Λ .	164 -	476	521	575	700
VI .	192	489.	533	588	717
VII	3.65	478	523	577	702
VIII	189	484	529	503	72 C
ıx-	247	631	699	761 -	928
Rapid Growth Suburba					-
I No. on	195	487	532	586	711
II	. 186 ·	. 472	516	569	692
III ~	193	484	52 9	582	7GĒ
IV .	182	466	509	562	684
V	196	489	534	588	714
VÍ	187	473	517	570	694
VII	196	468	533	587	712
VIII	191	480	524	57 8	702
, IX	195	494	539	595	722 .
Slow Growth Seburban					
I	196	. 487	532	586	711
II	193	483	527	581	706
III	192	481	525	579	703
IV	191	479	523	5 7 6	700
V	191	479	524	5 7 7	701
VI	187	473	517	5 7 0	693
VII	194	483	528	582	706
VIII	192	480	524	5 7 8	7 02
ıx .	197	494 -	540	594	722

TABLE 2 (continued)

THE MEAN DIPPERENCE BETWEEN 1970-71 STATE AID AND SIMULATED STATE AID AT BALECTED 1970-71 CURRENT PER PUPIL EXPENDITULE BENCHMARKS BY HODEL.

AND SCHOOL DISTRICT TYPE

	Additional Aid For Pupil at Selected Current Expenditure Levels				
District Tape And Model	10th Per- centile	56th Per- centile	65th Per- centile	·75th Por- centile	90 di. Pen- Centile
ndependent City				همين عليه و المستورة ويونيون فالمستورة و المستورة والمستورة والمست	,
Annual Continues on autopolitic desires from Cont.	B			4 506	a =:=
I	\$ 200	\$ 492	\$ 535	\$ 590	ş 715
II	193	493	527	581	7; \$
III	196	48,4	529	582	7(%)
IV .	207	513	548	603	700
V	1.87	469	512	565	6:4
VI	192	477	521	574	697
vii	194	480	524	578	701
VIII	196	484	528	582	703
D.X	217	533	582	640	776
<u>iral</u>			•	•	
ı	197	490	535	529	725
ŤŦ	204	499	544	598	735
III	1 94 g	_5£ فياب	529	583	768
IV ,	197 *	1 ⁸ 490	5 35	5 89	715
V	192	480	525	5 78	702
VI ·	173 .	450	492	543	662
VII	194	485	.5 30	584	768
VIII	185	470	514	566	€£3
IX	201	503	548	604	734

Assuming the 50th percent. 9 expenditure foundation were in effect, aid would expend by about 195 percent under Models One through Fight and would increase by approximately 231 percent under Model Fine. Assuming the 65th percentile expenditure base, current revenue from State sources would grow by about 195 percent for Models One through Eight and over 252 percent for Model Nine. Given the 75th percentile base, State aid would go up 235 percent for all equalization aid formulas except the one used in Model Nine which would produce a 278 percent aid increase. And if the 90th percentile expenditure benchmark were used, aid from the State would rise about 265 percent for Models One through Eight and a substantial 336 percent for Models One through Eight and a substantial 336 percent

Although all school districts would receive more current revenue from State sources under each model than at present, Table 2 makes it very apparent that all of the variable equalization models tend to benefit some sound district types more than others. Regardless of the expenditure ceiling, Model Nine would result in the widest variation in the additional amount of State aid received by school districts. Using the 90th percentile expenditure benchmark, for example, the AFDC-weighted equalization formula of Model Nine would give suburban districts an average State aid increase amounting to \$722 per pupil but would yield central city districts an

average aid increment of \$926 per pupil, a \$204 gap.

Much smaller but important gaps would result as well from Models Two, Four, Five and Six.

Even though some of the variable equalization models would benefit some school district types considerably more than others, it is interesting to find that two of the models would result in no more than an \$11 gap between the school district types getting the greatest and smallest average State aid increments. If the per pupil expenditure benchmark were set at the 90th percentile, the per pupil property wealth-based equalization formula of Model One would channel a low average increment of \$704 per pupil to central city districts and a high mean increase of \$715 per pupil to both independent city and rural districts. Similarly, the school tax effort-based equalization formula of Model Seven, at one extreme, would yield an average increase of \$701 per pupil to independent city school districts, and at the other extreme, would produce a mean addition of \$712 per pupil for rapid growth suburban districts.

It is useful, of course, to examine the redistributional effects of the various equalization models in terms of the average State aid increases that would go to different school district types. Table 3 indicates, however, that the averages do not provide particularly good estimates

TABLE 3

SIMULATED STATE AID LESS PRESENT STATE AID AT THE 90TH PERCENTILE EXPENDITURE BENCHMARK BY MODEL AND SCHOOL DISTRICT TYPE (Per Pupil Amounts)

District Name And Name	Model I	Model II	Model III	Model IV	Model V
Central City	•			٠,٠	
Bridgeport	\$ 685	\$ 709	\$ 677 .	\$ 703	\$ 632
	. 669	686	676	698	690
New Haven	631	666	634	670	668
Norwich	746	750	692	731	728
- Stamford	655	67 2	653	672	706
Rapid Growth Suburban	<u>1</u>	•			
Ellington	724	697	748	746	723
Glastonbury	740	720	724	705	733
Montville	751	727	7 79	767	721
Somers	747	741	728 -	724	607
Wilton	662	602 '	664	633	708
Slow Growth Suburban					
Andover	749	736	732	· 623	744
Granby	741	722	· 716	692	7 28
Greenwich	498	545	556	597	592
Manchester	733	736	720	726	726
Sprague	746	748	718	769	. 623
Independent City					
Ansonia	739	749	721	736	706
Middletown	671	700	696	776	655
Putnam	722	746	643	689	665
Toxrington	709	731	702	727	683
Winchester	~ 747	751 c	715	749	755
Rural .		,			
Cantérbury	7 63.	748	744	. 748	714
New Hartford	731	715	701	737	736
Old Saybrook	649 -	615	740	724	652
Oxford	722	689	740	755	679
Salisbury	560	5 89	678	736	596
Salisbury	5,60	589	0/8	, /30	. 590

TABLE 3 (continued)

SIMULATED STATE AID LESS PRESENT STATE AID AT THE 90TH PERCENTILE EXPENDITURE BENCHMARK BY MODEL AND SCHOOL DISTRICT TYPE (Per Pupil Amounts)

			r4	
District Name And Type	Model VI	Model VII	Model VIJ1	Model IX
Central City				
Bridgeport	\$ 706	\$ 658	\$ 695	\$ 1,113
Hartford	717	680	693	1,301
New Haven	672	649	652	1,277
Norwich	729	737	737	886
Stamford	701	. 680	678	791
Rapid Growth Suburban				
Ellington	693	723	708	746
Glastonbury	726	736	733	7 55
Montville	674	736	712	801
Somers	707	677	. 727	772
Wilton	694	684	678	649
Slow Growth Suburban				
Andover	729	7 47 ·	739	765
Granby	706	. 735	724	747
Greenwich	629	545	563	479
Manchester	712	729	723	· 794
Sprague	688	684	717	823
Independent City		`		
Ansonia	. 714	. 723	72 6	866
Middletown	682	663	676	806
Putnam	690	693	706	841
Torrington	715	696	. 712	769
Winchester	721	751 .	734	803
Rural				
Canterbury	640	738	702	771
New Hartford	723	733	7 27	751
01d Saybrook	627	651	638	677
Oxford	647	700	684	735
Salisbury	570	578	565	588

of the State aid increments that would be received by any given school district type for any equalization model. This fact can be illustrated easily with a few examples. If the State funded the 90th percentile expenditure benchmark, one central city district, Stamford, would receive \$791 per pupil in additional State aid under the AFDC-weighted formula of Model Nine, but another, Hartford, would receive about a \$1,301 per pupil increment. the same vein, one rapid growth suburban district, Montville, would gain about \$778 per pupil in State aid under the per pupil income-based aid formula of Model Three, but another rapid growth suburban district, Wilton, would get only \$664. And finally, under the AFDC-weighted pupil wealth formula of Model Nine, one very wealthy rural district, Salisbury, would obtain an increase of only \$588 per pupil, but another rural district, Canterbury, would get about \$771 per pupil.

Thus far, we have demonstrated that all school districts in Connecticut would receive absolute increases in State aid under each of the variable equalization formulas or models considered, even in the event that the State supported a current expenditure base set only at the 10th percentile level. Additionally, we have shown that all the equalization formulas would distribute more aid to some school district types than others. No doubt these facts would condition the nature of political support

available for each of these formulas. It is likely, however, that the character of political support or opposition for these formulas would be influenced more by the absolute gains or losses they would offer with respect to the present State-local finance system.

Table 4 reveals the per pupil revenue gap or surplus between State-local revenue in 1970-71 and the amount of State aid that selected school districts would receive if the aided current expenditure benchmark were set at the 10th, 50th, 65th, 75th and 90th percentile levels. This table, though limited to a summary of Model One's effects, demonstrates an important fact which emerges from our analysis of all nine variable equalization models: namely, it would be necessary to set the Statefunded per pupil expenditure base at the 90th percentile . level if a majority of school districts were to receive State aid in amounts that would exceed 1970-71 Statelocal revenue levels. If the aided base were set at the 10th percentile level, the deficit between simulated State aid and 1970-71 State-local revenue levels would be at least \$400 per pupil for most school districts. deficit, moreover, would drop relatively little if the State-funded base were set at the 50th and 65th percentile levels, owing to the fact that the absolute difference between these plateaus and the 10th percentile level is small. In contrast, if the aided benchmark were set at

TABLE 4

1970-71 STATE-LOCAL REVENUE LESS SIMULATED STATE AID AT SELECTED EXPENDITUPE FOUNDATIONS BY SCHOOL DISTRICT TYPE FOR VARIABLE EQUALIZATION MODEL I (Per Pupil Amounts)

District Name And Type	10th Pctile Fndation	50th Pctile Fndation	65th Pctile Fndation	75th Pctile Fndation	90th Pctile Fndation
Central City		r		• •	
Bridgeport	\$-405	\$ -110	\$ - 65	\$ - 10 .	\$ 117
Hartford	-796	-510	-466	-413	-290
New Haven	- 896	-413	-370	-317	-196
Norwich .	-355	- 52	-	- 51	181,
Stamford	-746	-463	- 426	-374	-255
Rapid Growth Suburban					
Ellington	-586	-286	-240	- 84	- 55
Glastonbury	-436	-188	~143	- 87	41
Montville	~317	- 21	25	80	210
Somers . ·	-442	-140	- 93	- 37	93
Wilton	-972	-695	-653	-601	-482
Slow Growth Suburban			•		
Andover	-561	-253	-206	-149	- 17
Granby	-455	-153	-106	- 50	80
Greenwich	-869	-645	-611	- 569	-473
Manchester	~473	-179	-134	- 80	47
Sprague	-294	- 3	42	96	221
Independent City		·	,		-
Ansonia	-299	-254	-206	-149	- 17
Middletown	- 529	-247	-204	-152	- 30
Putnam	-274	15	60	114	238
Torrington	-382	- 93	- 49 .	5	129
Winchester-	-338 .	- 38	. 8	64	194
Rural			•		
Canterbury	-164	141	188	244	376
New Hartford	-703	-408	-363	-308	-181
Old Saybrook	-640	-371	-330	-280	-165
Oxford	-344	- 44	1 .	55	179
Salisbury	-755	- 506 `	-469	-424	321

the 75th percentile level, deficits between the simulated State aid and present State-local revenue would begin to disappear and surpluses would begin to emerge in a fair number of districts. The deficits remaining in many districts, however, would be so substantial that they could not be raised except by relatively high local property tax rates.

Most school districts would experience revenue increases under a variable equalization formula that supported expenditures at the 90th percentile level. A few, however, would not. These districts in the main are found in suburbia or exurbia, but as Table 5 indicates, are not located exclusively in such places. Under variable equalization Model One, for example, Hartford, New Haven and Stamford would all have revenue deficits which average to \$247 per pupil. Ansonia and Middletown, both relatively small independent cities, would face deficits averaging about \$24 per pupil. And finally, exurban Old Saybrook and Salisbury would be confronted with respective revenue gaps of \$165 and \$321 per pupil.

Variable Equalization and "Levelling-Down."

Thus far, we have considered the implications of variable equalization for current school district revenues. In the process, we intentionally have ignored the issue of expenditure ceilings and the problem of

TABLE 5

SIMULATED STATE AID AT THE POTH PERCENTILE EXPENDITURE
LEVEL LESS 1970-71 STATE-LOCAL REVENUE BY VARIABLE
EQUALIZATION MODEL AND SCHOOL DISTRICT TYPE

District Name And Type	Model I	Model II	Model JII	Model IV	Model V
		· ·	***************************************		
entral City					-
Bridgeport	\$ 117	\$ 141	\$ 109	\$ 136	s 64 -269
Hartford	-290	-273	-283	-261	-265 -159
New Haven	-196	-161	-193	-1.57 167	164
Norwich	181	186.	127	-238	-203
Stamford	-255	-237	-257	-250	-
Rapid Growth Suburban					
Ellington	- 55	- 82	- 31	- 33	- 56
Glastonbury	41	21	25	7	34 .
Montville	210	184	235	223	178 62
Somers	93	87	. 74	70	_
Wilton	≟482	-541	-479	-510	-43(
Slow Growth Suburban	•			-	
Andover	- 17	- 31	~ - 35	-143	- 22
Granby	80	61	55.	31	67
""Greenwich	-473	-426	-415	-374	-379
Manchester	47	- 49	34	40	39
Sprague	- 221	224	194	245	225
Independent City				•	
Anŝonia	- 17	234	207	222	192
Middletown	30	49	- 5	75	- 46
Putnam	238	263	160	206	182
Torrington	129	151	122	147	103
Winchester	194	. 197	162	195	201
Rural	-	•	÷	•	-
	376	360	357	361	326
Canterbury New Hartford	-181	-197	-211	-175	-176
Old Saybrook	-165	-199	74	- 90	-162
Oxford Saybrook	179	147	198	212	136
Salisbury	-321	-292	-203	-145	-285

TABLE 5 (continued)

SIMULATED STATE AID AT THE 90TH PERCENTILE EXPENDITUPE LEVEL LESS 1970-71 STATE-LOCAL REVENUE BY VARIABLE EQUALIZATION MODEL AND SCHOOL DISTRICT TYPE

District Name And Type	Model VI	Model VII	Model VIII	Model IX
Central City				
			A A B	\$ 545 ·
Bridgeport	\$ 138	\$ 46 ·	\$ 83 .	\$ 343 342
Hartford	-242	-3 39	-32 5	491
New Haven	~155	-242	-239	322
Norwich	165	142	142	-118
Stamford	-2 08 - ·	-301	-303	-112
Rapid Gröwth Suburb	an			
±				
Ellington	- 86	- 91	-106	- 36
Glastonbury	28	- 2	- 5	57
Montville	130	150	126	257
Somers	54	56	42	119
· Wilton	-449	-533	-540	-495
Slow Growth Suburba	<u>n</u>			
Andover	- 37	- 43	- 50	- 1
Granby	. 44	42	30	85
Greenwich	-342	-586	-568	-491
, Manchester	. 26	- ` 3	- 10	107
Sprague	164	173	142	299
Independent City	•			
Ansonia	200	166	170	. 351
Middletown	- 20	-104	- 91	105
Futnam	207	157	170	358
Torrington	135	62	78	189
Winchester	167	. 162	145	249
-	•			
Rural				
Canterbury	253	323	· 287	383
New Hartford	-189	-223	-229	-161
Old Saybrook	-187	-250	-262	-137
Oxford	105	106	. 90	193
Salisbury	-311	437	-450	-294
	•	•		•

"levelling-down" school district outlays. Importantly, the amount of "levelling-down" necessary under any of our nine variable equalization models would depend mainly on two factors: first, present school district expenditure levels; and second, the manner in which the State counts pupils. This can be seen in Table 6.

Assume, for example, that the State were to set a current expenditure ceiling at 110 percent for \$1,054 per pupil, the 90th percentile per pupil expenditure level in 1970-71. Under this condition, as Table III-6 shows, only three of our representative school districts would have per pupil outlays which exceed the ceiling by 110 percent. Among the representative central cities, Hartford would exceed the ceiling by \$49. Among the sample suburbs, Wilton would surpass the ceiling by \$25 and Greenwich by \$56.

Assume, now, that the State counted pupils on a weighted basis in order to take into account such factors as differentials in school operating costs or educational needs. Table 6 gives some indication of what could happen if all AFDC pupils double-counted. Importantly, not one of our representative central cities would have expenditures greater than the 90th percentile foundation of \$1,054 per pupil. Neither would any of our small city or rural districts. And of our suburban districts, Wilton and Greenwich would exceed the ceiling by a

PER PUPIL CURRENT EXPENDITURE AND ON AN AFDC-UNIT WEIGHTED BASIS, BY SCHOOL DISTRICT TYPE, 1970

District Type And Name	Curr. Expendi- ture Per Pupil	Curr. Expenditure Per AFDC-Weighted Pupil
Central City		·
Bridgeport	839	596
Hartford	1,208	748
New Haven	1,125	712
Norwich	811	711
Stamford	1,094	955
Rapid Growth Suburban		
Ellington	977	949
Glastonbury	088	860
Montville	750	716 ·
Somers	822	797
Wilton	1,244	1,238
Slow Growth Suburban		
Andover	883	866
Granby	852 ·	841
Greenwich	1,215	1,194
Manchester	896	838
Sprague	719	662
Independent City		
Ansonia	772	684
Middletown	903	780
Putnam	727	646
Torrington	800	749
Winchester ·	872	822
Rural		
Canterbury	608	600
New-Hartford	979	951
Old Saybrook	936	894
Oxford	· 732	715
Salisbury	1,035.	1,005

smaller amount than if all pupils were counted equally.

In order to obtain a better idea of the "levellingdown" problem that might face Connecticut, we ranked the State's school districts according to their current expenditures per pupil during the 1970-71 fiscal year. As Table 7 shows, only twelve of the State's school districts had per pupil current outlays which were more than 110 percent of the 90th percentile expenditure level. Moreover, only nine of the State's districts had AFDC-weighted pupil expenditures which were greater than the same level. On either basis, however, only four of the high spending districts, Darien, Westport, New Canaan and Wilton, might face an absolutely large rollback problem. The extent of this problem, of course, would depend greatly on the manner in which the State counted pupils, or put another way, on the manner in which the State normed school district wealth.

Variable Equalization and School Taxes

Thus far we have discussed some of variable equalization's important revenue and expenditure implications. We turn now to consider the impact of these formulas upon school taxes.

Regardless of the degree to which variable equalization school finance systems meet educational needs or insure a considerable degree of fiscal equity, Connecticut taxpayers like taxpayers elsewhere will be

TABLE 7

SCHOOL DISTRICTS IN 1970-71 WITH CURRENT EXPENDITURES PER PUPIL GREATER THAN THE 90TH PERCENTILE LEVEL CEILING

Schoool District	Curr. Expendi- ture Per Pupil	Curr. Expenditure Fer AFDC-Weighted Pupil	Expenditure Fa- duction Reeded to Reach Expon- diture Ceiling
Darien	\$ 1,489	\$ 1,476	·\$ 287
Westport	1,351	1,342	183
New Canaan	1,344	1,331	172
Canaan .	1,286	1,170	11
Wilton	1,245	1,242	83
Sharon	1,238	1,183	24
Greenwich	1,215	1,193	34
Hartford	1,208	511	C
Cornwall	1,180	1,171	12
Weston	1,178	1,173	14
West Hartford	1,175	1,159	0
Regional District 12	1,173	1,140	o o

prone to judge those systems first on the basis of their effect on taxes. This is not to say that Connecticut taxpayers have low regard for educational needs or fiscal equity, but simply to underscore the fact that citizens tend to judge, evaluate any part of a public budget in terms of taxes owing to the fact that it is inherently easier to recognize public education's private tax costs than it is to identify either its private or social benefits.

Since we have assumed that Connecticut should finance public education through a joint local-State system, we can examine the tax cost of our variable equalization formulas in terms of local school districts and to the State as a whole. In any school district, the taxes necessary to support the local share of public education will vary with two factors: (1) extant variable equalization State aid formula; and, (2) the degree to which citizens elect to spend up to the maximum level allowed by law.

Table 8 demonstrates the local property tax mill levels that would be necessary to eliminate the gap between the level of school district State-local current revenue in 1970-71 and the amount of State aid that would be obtained under each of our variable equalization models assuming that local expenditures would be aided at the 90th percentile expenditure level. In the same vein;

TABLE 8

SIMULATED SCHOOL TAX RATE NECESSARY TO ELIMINATE THE GAP BETWEEN

1970-71 STATE-LOCAL REVENUE AND SIMULATED STATE AID

AT THE 90TH PERCENTILE EXPENDITURE LEVEL

BY VARIABLE EQUALIZATION MODEL

AND SCHOOL DISTRICT TYPE

District Name And Type	Model I	Model II	Model III	Model IV	Model V
•					
Central City				•	
	•0	.0	.0	.0	.0
Bridgeport	6.1	5.7	5.9	5.5	5.6
Hartford	3.8	3.1	3.7	3.0	3.1
New Haven	.0	.0	.0	.0	.0
Norwich	4.4	4.1	4.4	4.1	3.5
Stamford	4.4	. •••			
Rapid Growth Suburb	an		•		
	1.9	2.9	1.1	1.2	2.0
Ellington	.0	0	0	.0	.0
Glastonbury	.0	.0	.0	. 0	.0
Montville	0	.0	.0	.0	.0
Somers	8.0	9.0	8.0	8.5	7.3
Wilton	0.0			2	
Slow Growth Suburba	<u>ın</u>				
Andover	· . 9	1.6	1.8		1.2
Granby -	.0	.0	.• 0	.0	.0
Greenwich	3.7	3.3	3.2	2.9	2.9
Manchester	0	.0	.0	.0	.0
Sprague	.0	.0	.0	.0	.0
	•				f
Independent City					•
Ansonia	.0	.0	.0	.0	.0
Middletown	.6	.0	.1	.0	. •9
Putnam	.0	.0	.0	.0	.0
Torrington	.0	.0	0	.0	.0
Winchester	.0	.0	. 0	•0	.0
Rural		•			
Commence of				0	.0
Canterbury	.0	.0	.0	.0	5.0
New Hartford	5.1	5.5	5.9	4.9 1.3	2.3
Old Saybrook	2.4	2.8	1.1		.0
Oxford	.0	.0	.0	.0 1.3	2.6
Salisbury	3.0	2.7	1.9	1.3	2.0
	-				

TABLE 8 (continued)

SIMULATED SCHOOL TAX RATE NECESSARY TO ELIMINATE THE GAP BETWEEN

1970-71 STATE-LOCAL REVENUE AND SIMULATED STATE AID

AT THE 90TH PERCENTILE EXPENDITURE LEVEL

BY VARIABLE EQUALIZATION MODEL

AND SCHOOL DISTRICT TYPE

District Name And Type	Model VI	Model VII	Model VIII	Model IX
Central City			•	
Bridgeport	.0	.0	. •0	.0
Hartford	5.1	5.8	5.6	.0
New Haven	3.0	3.4	3.4	.0
Norwich	.0	•0	.0	.0
Stamford	3.6	4.0	4.0.	2.0
Rapid Growth Suburbar	<u>1</u>		•	
Ellington	3.0	2.0	2.4	1.3
Glastonbury	.0	٠٥ ٠	.0	.0
Montville	.0	· • O	.0	0
Somers	.0	.0	.0	.0
Wilton .	7.5	7.6	7;8	8.3
Slow Growth Suburban	•			
Andover	2.0	1.0	1.4.	0.1
Granby	.0	•0	.0	.0
Greenwich	2.6	3.3	3,2	3.8
Manchester	.0	٠0	.0	.0
Sprague	.0	.0	.0	.0
Independent City				**
Ansonia	.0	.0	.0	.0
Middletown	.4	.8	.5	.0
Putnam	.0	.0	.0	.0
Torrington	.0	•0	.0	.0
Winchester	.0	.0	.0	.0
Rural	·			
Canterbury	.0	.0	.0	.0
New Hartford	5.3	5.0	5.2	4.5
Old Saybrook	2.7	2.4	2.6	1.9
Oxford	.0	.0	, . 0	.0
Salisbury	2.9	2.8	3.0	2.7

Table 9 shows that the local property tax mill rates that would be required to eliminate the difference between 110 percent of the 90th percentile expenditure ceiling and the sum of State aid that would be received under each of the nine equalization models assuming that the 90th percentile expenditure maximum were imposed. Together, these tables indicate two very important points. First and foremost, they show that any of our variable equalization finance models could permit a drastic reduction in local property tax rates. In fact, if school districts operated at their 1970-71 State-local revenue levels, the State aid received under all the equalization formulas would permit a majority of districts to abolish the local property tax. Equally important, if local districts wanted revenues capable of supporting expenditures at the 110 percent of the expenditure ceiling, almost all could obtain the necessary funds by levying a local property tax with no more than a 5 mill rate.

A second point which emerges from Table 8 and Table 9 is that variable equalization could be used to insure a high measure of tax relief in Connecticut's central cities, exactly where it is needed most urgently. Both exhibits indicate, however, that this high order of relief cannot be achieved under any variable equalization formula. As a matter of fact, only the AFDC-weighted pupil wealth formula of Model Nine insures that school

TABLE 9

MILL LEVIES REQUIRED TO REACH 110 PERCENT
OF THE 90TH PERCENTILE CURRENT PER
PUPIL EXPENDITURE BENCHMARK IN 1970-71
BY SCHOOL DISTRICT TYPE
AND MODEL

Bridgeport 5.4 4.7 5.6 4.9 6.9 Hartford 4.6 4.3 4.5 4.0 4.2 New Eaven 4.5 3.8 4.4 3.7 4.8 Norwich 6.7 6.5 8.8 7.3 7.4 Stamford 4.2 4.0 4.3 4.0 3.4 Stamford 4.2 4.0 4.3 4.0 3.4 Stamford 5.8 6.4 6.2 6.8 6.0 Montville 5.5 6.2 4.7 5.0 6.4 Somers 6.6 6.8 7.3 7.5 7.0 Wilton 4.2 5.2 4.1 4.7 3.4 Slow Growth Suburban Slow Growth Slow G	District Name And Type	Model I	Model II	Model III	Model IV	Model V
Hartford 4.6 4.3 4.5 4.0 4.2 New Haven 4.5 3.8 4.4 3.7 4.8 Norwich 6.7 6.5 8.8 7.3 7.4 Stamford 4.2 4.0 4.3 4.0 3.4	Central City		•		•	سمير
New Flaver 4.5 3.8 4.4 3.7 4.8	Bridgeport	5.4	4.7	5.6	4.9	6.9
Norwich 6.7 6.5 8.8 7.3 7.4 Stamford 4.2 4.0 4.3 4.0 3.4 Rapid Growth Suburban	Hartford	4.6	4.3	4.5	4.0	4.2
Stamford 4.2 4.0 4.3 4.0 3.4	New Haven	.4.5				
### Rapid Growth Suburban Ellington	Norwich	6.7	6.5			
Ellington 6.1 7.1 5.3 5.4 6.2 Glastonbury 5.8 6.4 6.2 6.8 6.0 Montville 5.5 6.2 4.7 5.0 6.4 Somers 6.6 6.8 7.3 7.5 7.0 Wilton 4.2 5.2 4.1 4.7 3.4 Slow Growth Suburban Andover 8.0 8.8 9.0 14.7 8.3 Granby 6.6 7.3 7.5 8.5 7.0 Greenwich 3.2 2.9 2.8 2.5 2.5 Manchester 5.2 5.2 5.6 5.4 5.4 Sprague 5.0 5.0 5.7 4.5 4.9 Independent City Ansonia 5.5 5.2 5.2 6.0 5.6 6.5 Middletown 4.4 3.9 3.9 2.4 4.7 Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Stamford	4.2	4.0	4.3	4.0	3.4
Glastonbury 5.8 6.4 6.2 6.8 6.0 Montville 5.5 6.2 4.7 5.0 6.4 Somers 6.6 6.8 7.3 7.5 7.0 Wilton 4.2 5.2 4.1 4.7 3.4 Slow Growth Suburban Andover 8.0 8.8 9.0 14.7 8.3 Granby 6.6 7.3 7.5 8.5 7.0 Greenwich 3.2 2.9 2.8 2.5 2.5 Manchester 5.2 5.2 5.6 5.4 5.4 Sprague 5.0 5.0 5.7 4.5 4.9 Independent City Ansonia 5.5 5.2 6.0 5.6 6.5 Middletown 4.4 3.9 3.9 2.4 4.7 Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Rapid Growth Suburban		•			
Montville 5.5 6.2 4.7 5.0 6.4 Somers 6.6 6.8 7.3 7.5 7.0 Wilton 4.2 5.2 4.1 4.7 3.4 Slow Growth Suburban Slow Growth Suburban Slow Greenwich 3.2 2.9 2.8 2.5 2.5 Manchester 5.2 5.2 5.6 5.4 5.4 Sprague 5.0 5.0 5.7 4.5 4.9 Sprague 5.0 5.0 5.7 4.5 4.9 Sprague 4.4 3.9 3.9 3.9 2.4 4.7 Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Sprague 5.0 5.0 5.7 8.5 5.0 4.4 5.4 Sprague 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Sprague 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	Ellington	6.1	7.1			
Somers 6.6 6.8 7.3 7.5 7.0 Wilton 4.2 5.2 4.1 4.7 3.4	Glastonbury	5.8	6.4	6.2	6.8	
Wilton 4.2 5.2 4.1 4.7 3.4 Slow Growth Suburban Andover 8.0 8.8 9.0 14.7 8.3 Granby 6.6 7.3 7.5 8.5 7.0 Greenwich 3.2 2.9 2.8 2.5 2.5 Manchester 5.2 5.2 5.6 5.4 5.4 Sprague 5.0 5.0 5.7 4.5 4.9 Independent City Ansonia 5.5 5.2 6.0 5.6 6.5 Middletown 4.4 3.9 3.9 2.4 4.7 Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9<	Montville	5.5		4.7		
### Stow Growth Suburban Andover	Somers	6.6	6.8	7.3		
Andover 8.0 8.8 9.0 14.7 8.3 Granby 6.6 7.3 7.5 8.5 7.0 Greenwich 3.2 2.9 2.8 2.5 2.5 Manchester 5.2 5.2 5.6 5.4 5.4 Sprague 5.0 5.0 5.7 4.5 4.9 Independent City Ansonia 5.5 5.2 6.0 5.6 6.5 Middletown 4.4 3.9 3.9 2.4 4.7 Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Wilton	4.2	5.2	4.1	4.7	3.4
Granby 6.6 7.3 7.5 8.5 7.0 Greenwich 3.2 2.9 2.8 2.5 2.5 Manchester 5.2 5.2 5.6 5.4 5.4 Sprague 5.0 5.0 5.7 4.5 4.9 Independent City Ansonia 5.5 5.2 6.0 5.6 6.5 Middletown 4.4 3.9 3.9 2.4 4.7 Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Slow Growth Suburban			•	•	•
Greenwich 3.2 2.9 2.8 2.5 2.5 Manchester 5.2 5.2 5.6 5.4 5.4 Sprague 5.0 5.0 5.7 4.5 4.9 Independent City Ansonia 5.5 5.2 6.0 5.6 6.5 Middletown 4.4 3.9 3.9 2.4 4.7 Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Andover	8.0	8.8	9.0	14.7	
Manchester Sprague 5.2 5.2 5.6 5.4 5.4 Sprague 5.0 5.0 5.7 4.5 4.9 Independent City Ansonia 5.5 5.2 6.0 5.6 6.5 Middletown 4.4 3.9 3.9 2.4 4.7 Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	·			-		
Sprague 5.0 5.0 5.7 4.5 4.9						
Independent City Ansonia 5.5 5.2 6.0 5.6 6.5 Middletown 4.4 3.9 3.9 2.4 4.7 Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Manchester					
Ansonia 5.5 5.2 6.0 5.6 6.5 Middletown 4.4 3.9 3.9 2.4 4.7 Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Sprague	5.0	5.0	5.7	4.5	4.9
Middletown 4.4 3.9 3.9 2.4 4.7 Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Independent City					
Putnam 4.9 4.3 6.7 5.7 6.2 Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Ansonia	5.5	5.2	6.0	5.6	6.5
Torrington 5.0 4.3 5.0 4.4 5.4 Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Middletown	4.4	3.9	3.9	2.4	4.7
Winchester 6.2 6.0 7.3 6.1 5.9 Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Putnam	4.9	4.3	6.7	[*] 5.7	6.2
Rural Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Torrington	5.0	4.3	5.0	4.4	5.4
Canterbury 7.2 7.8 8.0 7.8 9.4 New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Winchester	6.2	6.0	7.3	6.1	5.9
New Hartford 5.4 5.8 6.2 5.2 5.2 Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Rural			•		
Old Saybrook 3.9 4.4 2.6 2.9 3.9 Oxford 5.0 5.7 4.5 4.2 6.0	Canterbury	7.2	7.8	. 8.0	7.8	
Oxford 5.0 5.7 4.5 4.2 6.0	New Hartford		5.8	6.2	5.2	
• • • • • • • • • • • • • • • • • • • •	Old Saybrook	3.9	4.4	2.6	2.9	
Salisbury 3.4 3.1 2.3 1.8 3.1	Oxford .	5.0 .	5.7	4.5	4.2	
	Salisbury	3.4	3.1	2.3	1.8	3.1

TABLE 9 (continued)

MILL LEVIES REQUIRED TO REACH 110 PERCENT OF THE 90TH PERCENTILE CURRENT PER PUPIL EXPENDITURE BENCHMARK IN 1970-71 BY SCHOOL DISTRICT TYPE AND MODEL

District Name And Type	Model VI	Model VII	Model VIII	Model IX
Central City		,		
Bridgeport	4.8	6.2	5.1	.0
Hartford	3.6	4.4	4.1	.0
· New Haven	3.7	4.2	4.1	.0
Norwich	7.3	7.1	7.0	1.0
Stamford	3.4	3.8	3.8	2.1
Rapid Growth Suburba	<u>n</u>			
Ellington	7.2	6 . 2	6.7	5.4
Glastonbury	6.2	5.9	6.C	5.3
Montville	7.8	6.0	6.7	4.1
Somers	8.1	6.8	. 7.4	5.6
Wilton	3.6	3.8	3.9	4.4
Slow Growth Suburban	_	•		
Andover	9.1	8.2	8.6	7.2
Granby	7.9	6.8	7.3	6.3
Greenwich	2.2	2.9	2.7	3.4
Manchester	5.8	5.3	5.5	3.7
Sprague	6.5	5.0	5.8	3.2
Independent City				
Ansonia	6.2	6.0	5.9	1.8
Middletown	4.2	4.6	4.3	1.9
Putnam	5.6	5.6	5.3	1.7
Torrington	4.7	5.2	4.9	3.5
Winchester	7.1	6.1	6.7	4.3
Rural				
Canterbury	12.7	8.3	10.0	6.7
New Hartford	5.6	5.3 ·	5.5	4.9
Old Saybrook	4.3	3.9	4.1	· 3.6
Oxford	6.7	5.5	5.9	4.7
Salisbury	3,3	3.3	3.4	3.2
•				

districts in central cities will get as much property tax relief as school districts in other sorts of locations.

Even though variable equalization offers the possibility of virtually eliminating school property levies, its high amount of State aid could not be supported without imposing one or more of the following likely alternatives:

(1) a Statewide property tax, (2) a Statewide sales tax over and above the present 7 percent levy, or (3) a Statewide personal income tax. This study will inspect the implications of variable equalization for a sales tax and an income tax, but will ignore the property tax primarily upon the premise that the property tax is so politically unpopular that it would be purely academic to consider it.

that would be necessary to finance the State-aid component of our nine variable equalization models assuming that the rates applied to non-food and drug sales. One imporant and obvious fact emerges from this table with just casual inspection: namely, that no variable equalization system could be financed through a sales tax except at rates that would be economically disastrous and politically impossible. Even if the expenditure level were set at the 10th percentile level, every variable equalization model would require sales tax rates of at least 7 percentage points over and above Connecticut's

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TABLE 10

SALES TAX RATES NECESSARY TO FINANCE STATE AID COMPONENT OF VARIABLE EQUALIZATION ASSUMING SELECTED EXPENDITURE BENCHMARKS

Expenditure Benchmark	re K Model I	Model II	Model III	Model IV	Model V	Model VI	Model VII	Model·VIII	Nodel IX
10th Percentile	.e 7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.02	7.60
50th Percentile	.e 11.70	11.70	11.70	11.70	11.70	11.70	11.70	11.70	13:15
65th Percentile	.e 12.41	12.41	. 12.41	12.41	12.41	12.41	12.41	12.41	13.99
75th Percentile	.e 13.30	13.30	13.30	13.30	13.30	13.30	13.30	13.30	15.02
90th Percentile	.e . 15.70	15.70	15.70	15.70	15.70	15.70	15.70	15.70	17.40
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current sales, assuming that none of the current sales tax revenue goes for the purposes of funding education.

Given the political unpopularity of the property tax, the outright impossibility of a state sales tax, a statewide income tax would seem to be the last best hope as a means of financing an equitable variable equalization school finance system in Connecticut. Much to our own surprise, the personal income tax rates necessary to pay for a variable equalization finance system would be exceedingly modest. This can be seen by examining Tables 11 and 12.

Assuming that all federally-taxable personal income were subject to a state levy, Table 11 shows the average income tax rates that would be necessary to fund the state aid component of our nine different variable equalization models at each level of expenditure support. These rates range from a low average rate of 3.34 percent on all federally taxable personal income to a high of 8.29 percent. Assuming that Connecticut were to support expenditures at the 10th percentile expenditure level, all of the variable equalization systems could be supported by the imposition of no more than a 3.62 average state personal income tax rate. Regardless of whether the State were to support local expenditures at the 50th, 65th, or 75th percentile levels, the necessary State income tax would have to be approximately 5 percent, depending upon the equalization model.

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TABLE 11

AVERAGE INCOME TAX RATES NECESSARY TO FINANCE STATE AID COMPONENT OF VARIABLE EQUALIZATION MODELS ASSUMING SELECTED EXPENDITURE BENCHMARKS--ALL INCOME.

Expenditure Benchmark	Model I	Model II	Model III	Model IV	Model V	Model VI	Model VII	Model VIII	Model IX
10th Percentile	3.35	3,35	3.35	3,35	3.35	3,35	3.35	3.35	3.62
50th Percentile	5.57	5.57	5.57	5.57	5.57	5.57	5.57	5.57	. 6.27
65th [.] Percentile	. 2.92	5,92	5.92	. 26*9	. 8	5.92	5.92	5.92	6.67
75th Percentile	. 6.33	6.33	6.33	6.33	6,33	6.33	6.33	6.33	7.16
90th Pe rcentile	7.30	7.30	7.30	7.30	7.30	7.30	7.30	7.30	8. 8.

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TABLE 12

AVERAGE INCOME TAX RATES NECESSARY TO FINANCE STATE AID COMPONENT OF VARIABLE EQUALIZATION MODELS ASSUMING SELECTED EXPENDITURE BENCHMARKS--INCOME OVER \$10,000

. Expenditure Benchmark	Model T	Moden ++	14 L G G C W	מדור הפיסא	: C C C C				
		ı		AT Tapou	A Tabou	MOGET AT	Model VII	Model VIII	Nodel IX
10th Percentile	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.61	4.99
50th Percentile	69°4	7.69	7.69	7.69	7.69	7.69	7.69	7.69	8.64
, 65th Percentile	8.16	. 8.16	8.16	8.16	8.16	8.16	8.16	8.16	9.19
75th Percentile	8.72	8.72	8.72	8.72	8.72	8.72	8.72	8.72	9.87
SOth Percentile	10.01	10.01	10.01	10.01	10.01	10.07	10.01	10.07	11.43

Table 12, like Table 11, shows average personal income tax rates that would be necessary to support our variable equalization formulas, but it is constructed on the assumption that all individuals earning less than \$10,000 in taxable income would be exempt from taxation. These rates, not surprisingly, are substantially higher than those that might be imposed if all federally taxable personal income were subject to a state personal income levy. Moreover, they are markedly greater than the average effective personal income tax rates imposed by any other states except on income over \$25,000. Although we are inclined to believe that rates on this order would be politically unacceptable, they may not be entirely beyond the pale dependent upon two important factors. One is the reaction of Fairfield County residents, considerable in number, who already bear the burden of Connecticut taxes and New York State taxes owing to their journey-to-work patterns. Another factor is the degree to which individuals believe that the high tax rates would cost them less than the local property tax rates necessary to support schools. Unfortunatly, we cannot shed much light on the actual gap that might exist between present school taxes and the levies that might exist under a state personal income tax owing to the fact that there are no detailed data for Connecticut which describe property taxes paid by income

class within school districts.

It is very important to recognize, however, that funding the State share of school costs from an income tax would permit not only a massive reduction or elimination of local property taxes but also a significant cutback in present State taxes. The reason, of course, is readily apparent; a part of existing State tax revenues is used to finance State aid to education. Although this share cannot be established with pinpoint accuracy, it would appear to be about 18 percent, assuming that the State draws on its tax revenues to fund public schools in proportion to the share of its total expenditures going for State aid.

An 18 percent reduction in present State taxes would be impressive under any conditions but would be particularly visible if focused on one tax rather than spread disproportionately across all taxes. For example, an 18 percent reduction in the Sales tax would mean a 5.8 percent rate instead of the present 7.0 percent rate. However, using 1968 tax data, we find that the State might cut back the sales tax to about 3 percent if it devoted all of the freed tax revenue to sales tax reduction. We reach this figure as follows. In 1968, 18 percent of all State tax collections amounted to about \$89.9 million. In the same year, the State's sales tax collections were \$158.8 million.

In the event that Connecticut were to impose a statewide personal income tax, it is doubtful that it would use only one tax rate income class. Given this likelihood, we have calculated the state tax rate that would exist if a Connecticut personal income tax were levied at the same rate of class progression as the federal income tax. These rates are presented in Table 13 and in Table 14, the former constructed on the assumption that almost all income earners would be taxed, the latter put together on the premise that only persons with over \$10,000 annual income would be taxed. Given our discussion thus far these rates need no explanation or comment.

Restructuring Connecticut School Finance: Conclusions

- 1. Connecticut can and should replace its present school finance system with one which achieves a high degree of fiscal neutrality, that is, a system which insures that there is a very high degree of correlation between revenue effort and revenue yield.
- 2. Of the major alternative paths to fiscal equalization, Connecticut would be well-advised to use a high support variable equalization system. Full state assumption of all school finance is not an unattractive alternative but would be very unlikely to win much political support owing to the State's long tradition of high local autonomy and fiscal independence.
- 3. Many variable equalization formulas could be implemented in Connecticut at a remarkably low cost. Of the nine formulas tested, eight would cost about \$630 million if the State funded a current expenditure benchmark set at a level equal to the 90th percentile during the 1970-71 fiscal year. This cost would exceed the total State-local current expenditure during 1970-71 by about 2 percent.



TABLE 13

AVERAGE TAX RATES WITHIN INCOME CLASSES NECESSARY TO FINANCE STATE AID COMPONENT OF VARIABLE EQUALIZATION MODELS ASSUMING SELECTED EXPENDITURE BENCHMARKS--ALL INCOME

Income Class	Model I-VIII	Model IX
1,000-2,000	4.40	4.99
2,000-3,000	4.83	5.49
3,000-4,000	5.09	5 . 78
4,000-5,000	5.36	6.09
5,000-6,000	5.31	6.03
6,000-7,000	5.71	6.48
7,000-8,000	5.67	6.43
8,000-9,000	5.71	6.49
9,000-10,000	5.93	6.73
10,000-15,000	6.08	6.91
15,000-20,000	6.55	7.44
20,000-25,000	7.17	8.15
25,000-30,000	7.66	8.70
30,000-50,000	9 . 14	10.38
50,000-100,000	12.02	13.65
100,000-200,000	15.30	17.37
200,000-500,000	17.52	19.90
500,000-1,000,000	18.69	21.22
1,000,000 +	17.15	19.47

TABLE 14

AVERAGE TAX RATES WITHIN INCOME CLASSES NECESSARY TO FINANCE STATE AID COMPONENT OF VARIABLE EQUALIZATION MODELS ASSUMING SELECTED EXPENDITURES BENCHMARKS-INCOME OVER \$10,000

Income Class	Model I-VIII	Model IX
10,000-15,000	7.76	8.75
15,000-20,000	8.30	9.42
20,000-25,000	9.10	10.33
25,000-30,000	9.71	11.03
30,000-50,000	11.58	13.14
50,000-100,000	15.23	17.29
100,000-200,000	19.41	22.04
200,000-500,000	22.24	25.25
500,000-1,000,000	23.61	26.81
1,000,000 +	21.85	24.81

- 4. Assuming it funded a current expenditure benchmark equal to \$1,054 per pupil, the 90th percentile level in 1970-71, a variable equalization aid system would permit most Connecticut school districts not only to raise their current expenditures over 1970-71 levels, but also to abolish all property tax levies needed to fund current expenditures.
- 5. It is unlikely that any variable equalization aid formula would eliminate or sharply reduce school taxes in Connecticut cities unless it included a definition of fiscal condition that gave great weight to educational need or total local tax effort.
- 6. If a variable equalization aid system funded a current expenditure benchmark set at \$1,054 per pupil, it could be financed by a Statewide income tax having an average effective rate of about 10 percent on all federally taxable income. Obviously, it would be possible to reduce this rate by diminishing the State-funded current expenditure benchmark. This action, however, would minimize to a great extent the amount of property tax relief that variable equalization would otherwise provide.
- 7. Assuming that Connecticut funded its education support system by an income tax, it could reduce taxes presently used for this purpose. The sales tax, for example, might be reduced to as little as 3 or 4 percent.
- 8. Finally, it is likely that only a handful of school districts might be required to reduce their expenditures under any variable equalization system. These districts, however, could avoid having to reduce their current expenditures if the State required them to maintain their present expenditures while phasing-in a new variable equalization aid formula over a period of about five years. In this way, the strong secular pressure for higher education expenditures almost certainly would permit low-spending districts to raise their outlays to a level not too different from the level presently found in very high spending districts.