AN ECONOMIC EVALUATION OF THE ALTERNATIVE SCHOOL FINANCING PROPOSALS IN NEW YORK STATE

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Introduction

The single most important source of financial support for public education today is the local property tax. It accounted for an estimated 52 percent of all revenues received by U. S. public schools in the 1970-71 school year [6, p. 2E]. Despite this fact, the property tax is increasingly under attack. Local school districts are asked to finance the increasing demands placed on their school systems from a tax whose base is sharply eroded by exemptions. To make matters worse, the property tax may be inelastic with respect to income. That is, the rate of increase in market value of taxable property may be less than the rate of increase in income.[1/] In addition, some opponents claim that the property tax is regressive; that is, it places a greater burden on the poor than on the rich because the poor pay a greater proportion of their income in property taxes. They argue that real property is not a completely reliable indicator of wealth or ability to pay. The property tax is thus unacceptable to those who believe that schools should

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1/ Estimates of elasticity coefficients for the 48 contiguous states for 1961 range from 0.47 to 1.08, averaging 0.79. Estimates for the states in the Northeast are among the highest because of the sparcity of low value agricultural property [2, p. 189].

be financed by those best able to pay. In addition, the property tax is unacceptable to those who believe that schools should be financed by those who receive the benefits. However, since society in general benefits from education, allocation of benefits and costs is a difficult task.

Financing schools through the local property tax has fostered inequity on the expenditure side as well as on the cost side. At the present time, wide variations exist in per pupil expenditures, not only among states but among districts within a given state. For example, at least one school district in Texas spent $5,334 per pupil during the 1969-70 school year. This figure contrasts with the $264 per pupil expenditure of another Texas district. In New York State, the high of $1,889 and low of $669 are not as dramatic, but are still significant [6, p. 2E]. These disparities have given rise to an entirely different class of school financing critics. They differ in that they seek reform through the judicial rather than the legislative process, and there is growing evidence that property tax change will occur as a result of judicial intervention. In a landmark case (Serrano vs. Priest), the California Supreme Court ruled that the real property tax as presently administered violates the 14th Amendment to the U. S. Constitution because a

> "public school financing system which relies heavily on local property taxes and causes substantial disparities among individual school districts in amount of revenue available per pupil for the districts' educational grants invidiously discriminates against the poor . . . because it makes the quality of a child's education a function of the wealth of his parents and neighbors" [3, p. 1256].

Similar conclusions have been reached by the courts in Minnesota, New Jersey and Texas, and a court case is pending in New York. A decision by the U. S. Supreme Court appears certain in the very near future. If lower court decisions are upheld, the result will be a revolution in local and state tax structures and in acceptable methods of financing public education.

In 1969, prior to the California Court decision, New York responded to the widespread concern over the mounting problems facing the state's education system and appointed the Fleischmann Commission to "report on quality, cost, and financing of elementary and secondary education . . . and to make recommendations for the improvement of performance in all these dimensions" [4, p. 2.16]. The basic conclusion of the Fleischmann Commission is that the State of New York should be responsible for the full funding of public elementary and secondary education in order to assure that each student is provided equal educational opportunity and that the quality of education does not depend upon the property values in the area where he happens to live. The Commission recommended that the state assume the burden of collecting and distributing revenues for support of public education. Unless some valid educational reason exists for spending different amounts, per pupil expenditures in all districts would be brought up to the level of the district spending at the 65th percentile in a ranking of districts according to their base expenditures [4, p. 2.147].[2/]

To finance equalization of per pupil expenditures, the Fleischmann Commission recommended a uniform statewide property tax rate of $20.40 per $1,000 of full value property assessment. This reform would be implemented over a five year period and would generate about $2.5 billion. The Commission recognized the regressive nature of the statewide property tax and proposed it only as an interim solution. They recommended that the statewide property tax eventually be phased-out at a rate of 10 percent per year. The losses in revenue would be replaced by a more progressive tax, such as the state income tax.

2/ Base expenditures include general fund expenditures minus such items as debt service, and transportation.

Unlike many judges, lawyers and legislative committees who are preoccupied with equalizing expenditures, the Fleischmann Commission also expressed deep concern for those who must pay the bills - the taxpayers. However, no in-depth study has concentrated on the potential impact of the tax reform proposals. There are many unanswered questions. Will the shift to a uniform-rate statewide property tax provide tax relief for those who can least afford to pay? To what extent will substitution of the income tax for the property tax affect the tax incidence? To what extent is the fiscal capacity of local governmental units affected? The purpose of this paper is to probe for answers to these often overlooked questions.3/

Establishing Tax Incidence

Tax Models

To evaluate the impact of alternative school financing proposals, different models are developed to estimate the incidence of the state income tax, the local property tax at 1969 rates and the statewide property tax at the proposed uniform rate.4/ Each model is designed to describe the incidence of a particular tax by income class for each county in New York State.

The income tax model estimates tax liabilities for households in three separate income classes. The model utilizes federal income class data by zip code area from the Internal Revenue Service and state income tax data to estimate the distribution of the state income tax liability by income classes within counties. The number of federal tax returns by income class for each

3/ Although this study concentrates on the tax incidence of proposed finance alternatives, the impact of the expenditure adjustments proposed by the Commission is also important. However, evaluation of the adjustments in spending necessary to raise per pupil expenditures in all districts to the 65th percentile is not within the scope of this paper.

4/ For a detailed description of the models, estimation procedures, and data sources, see [1].

zip code area in the state may be determined from federal zip code data. For this study, 1966 zip code data was adjusted to 1969 on the basis of estimates of 1969 county population figures. This adjustment assumes that the distribution of federal returns by income class remained the same within each zip code area from 1966 to 1969. Next, the number of state income tax returns was allocated to the respective income classes on the same basis. The ratio of county to state per capita income was used to convert the state average tax liability per return in each income class to a county basis.[5/] The product of the average tax liability per return for each class and number of returns by income class is an estimate of total tax liability by income class.

The property tax models consist of three essential components; real property taxes paid by owners of residential property, real property taxes paid by renters and the estimated tax paid by consumers representing the shifted burden of property taxes levied on commercial property. The components are established separately and then combined to represent the total property tax burden by income class.

The residential property tax component is estimated utilizing a combination of housing census data on numbers and values of owned and rented housing units; and, state taxation data regarding full value of real property, tax rates and tax liability by county. The number of homes owned by persons in each income class was determined by multiplying 1969 estimates of the total number of owned homes by the percent of homeowners in each income class. Distributing full value, and consequently the tax liability to homes in each

5/ Because of the use of separate returns in some households, the number of tax returns by income class overestimates the actual number of households in that class. Consequently, average tax liabilities estimated from these data are underestimates of average household liabilities. Data to make the necessary adjustments were not available.

income class, relied on 1960 housing data regarding the number of owned homes in certain value categories.[6/] The distribution procedure assumes that the percent of owned homes by income class and their corresponding relative values did not change between 1960 and 1969. To estimate the property tax paid by renters, it was necessary to make the simplifying assumption that property taxes are completely shifted forward from landlords to renters. Sears indicates that data on average expenditures for rental units suggests a pattern of incidence strikingly similar, given the assumption of forward shifting, to that of homeowners [4, pp. 341-343]. Therefore, the tax liability of a renter in each income class was assumed to be the same as that of a homeowner in the same income class. Finally, the 1969 commercial property tax liability was also assumed to be completely passed on to consumers and was allocated to each income class on the basis of the classes' respective average consumption expenditures [5, p. 355].

Results

Results of the tax incidence analysis for the property tax as presently administered, the proposed uniform statewide property tax and the state income tax are summarized in Tables I and II. The property tax liability, assuming 1969 tax rates, was estimated for households having less than $3,000, $3,000 to $10,000, and greater than $10,000 income. County estimates were aggregated into four groups for discussion and comparison. New York City (NYC) is considered as a separate entity. The second group consists of the four counties that compose suburban NYC - Nassau, Suffolk, Westchester and Rockland. The

6/ The number of owned homes in each income category were estimated from data found in USDA Consumer Survey [7] and the 1970 Census of Housing [9]. The number of owned homes by value category was obtained from 1960 Census of Housing [8].

Table I

Total Tax Liabilities of Alternative School Financing Proposals by Income Class and Region

(Thousands of Dollars)

Region \ Income Class	< $3,000	$3,000-$10,000	> $10,000	Totals
Property Tax, 1969 Rates				
SMSA[a]	$ 26,862	$139,422	$175,028	$341,312
Non-SMSA[b]	14,724	83,292	107,706	205,722
Sub. NYC[c]	48,630	253,592	322,251	624,472
NYC[d]	88,567	371,436	341,864	801,866
Totals	178,783	847,742	946,848	1,973,373
Property Tax, Proposed Rate				
SMSA	$ 38,140	$176,414	$227,804	$442,358
Non-SMSA	17,464	95,338	127,621	240,424
Sub. NYC	44,425	229,684	291,907	566,016
NYC	119,831	502,325	462,804	1,084,961
Totals	219,860	1,003,762	1,110,136	2,333,759
Income Tax, 1971 Rates				
SMSA	$ 2,613	$ 87,190	$285,602	$375,405
Non-SMSA	2,289	40,881	131,056	174,226
Sub. NYC	3,185	100,540	560,069	663,794
NYC	6,104	227,903	685,956	919,963
Totals	14,191	456,514	1,662,683	2,133,388

a/ SMSA counties excluding New York City, Rockland, Nassau, Suffolk, and Westchester counties.
b/ Non-SMSA counties.
c/ Rockland, Nassau, Suffolk, and Westchester counties.
d/ New York City includes Bronx, New York, Queens, Kings, and Richmond counties.

Table II
Average Tax Liability of Alternative School
Financing Proposals by Income Class and Region
(Dollars)

Region \ Income Class	Property Tax, 1969 Rates[a] < $3,000	$3,000-$10,000	> $10,000	Property Tax, Proposed Rate[a] < $3,000	$3,000-$10,000	> $10,000	State Income Tax, 1971 Rates[b] < $3,000	$3,000-$10,000	> $10,000
SMSA									
Average[c]	125	163	445	155	210	554	12	90	599
Maximum	147	216	846	201	257	1094	16	115	797
Minimum	79	105	254	99	148	357	9	67	405
Range	68	111	592	102	109	737	7	48	392
Non-SMSA									
Average	122	174	424	154	212	517	11	79	620
Maximum	203	363	1019	228	528	1382	14	100	987
Minimum	55	105	253	75	137	329	8	61	376
Range	148	158	766	153	391	1053	6	39	611
Sub. NYC									
Average	287	440	999	255	388	886	19	135	977
Maximum	341	487	1130	302	431	1000	23	169	1314
Minimum	247	373	870	226	335	783	12	88	788
Range	94	114	260	76	96	217	11	81	526
NYC									
Average	137	230	538	185	311	728	16	119	921
State									
Average	168	252	602	187	280	671	15	106	779

a/ The tax liabilities corresponding to the property tax proposals are average tax liabilities per household.

b/ The tax liabilities corresponding to the income tax are average tax liabilities per state tax return. Because of the use of separate returns in some households, these figures are underestimates of true household liabilities. However, data to make the necessary adjustments were not available.

c/ The figures are simple averages across the counties in the group. The maximum and minimum are extreme county observations and the range is the difference between the extremes.

third group includes the remainder of the counties that are part of a Standard Metropolitan Statistical Area (SMSA). Counties outside an SMSA are combined in the non-SMSA group.

At 1969 rates, the local property tax generated $1.973 billion for school financing purposes. About 48 percent of this total ($946.8 million) is paid by the greater than $10,000 income group, with about 43 percent ($847.7 million) paid by the $3,000 to $10,000 income group. The remaining 9 percent is paid by the less than $3,000 income group. Based on 1969 rates, the highest income group obviously pays the largest absolute share of the property tax bill. However, a much better indication of the burden by income class is found on the last line in Table II. The state average burden for the highest income class is $602. It drops to $252 for the middle group and to $168 for the low income group. Estimates of average taxable income indicate that households with incomes of more than $10,000 pay 3.4 percent of their average income in school property taxes.[7/] The increase to 3.9 percent paid by middle income households appears to be only "mildly" regressive. However, the 8.0 percent paid by low income households reflects the true regressivity of the present local property tax system.

Regional comparisons of the tax burden can be made by observing SMSA, Non-SMSA, Sub. NYC, and NYC categories in Table I. In each income class, NYC contributes the largest share of total state property taxes for support of primary and secondary education. The $205.7 million of property taxes paid by residents in all Non-SMSA, or primarily rural, counties is approximately one-fourth of the $801.9 million paid by residents of NYC. The $624.4

7/ Average income is gross income reported for New York State income tax purposes.

million paid by suburban NYC residents is about three-fourths of the NYC tax liability. SMSA counties contribute $341.3 million, or about 17 percent of the tax liability. Tax liabilities per household, shown in Table II, indicate that Sub. NYC residents bear the greatest burden ($999), followed by NYC residents ($538), the SMSA counties ($445) and the Non-SMSA counties ($424).

The second version of the property tax model is designed to permit evaluation of the Fleischmann Commission's proposal to finance public education through a uniform statewide property tax. County tax rates were all adjusted to $20.40 per $1,000 full value of property taxable for school purposes. Property tax revenues by income class are presented in Table I. The state property tax revenue increases to $2.334 billion under the uniform tax rate. Minor adjustments occur in the proportion of the property tax bill paid by each income class. The percent paid by the higher income group is reduced from 48 to 47.5. That portion paid by the middle income group increases slightly from 42.9 to 43 percent. And, the burden borne by the low income group increases from 9 to 9.4 percent.

State average tax liabilities, presented in Table II, increase from $168 to $187 in the low income class, from $252 to $280 in the middle income class and from $602 to $671 in the upper income class. These substantial increases are attributable to the increase in the state average school property tax rate from $17.25 in 1969 to the proposed rate of $20.40. Taxes paid by the high income households under the Fleischmann Commission proposals are now 3.7 percent of taxable income, 4.4 percent for middle income households and 8.9 percent for low income households. The Commission's state property tax proposal appears to be no more regressive than the present local property tax. That is, as a percent of income, low income households pay an average

of 2.4 times as much in property taxes as high income households. The present property tax, however, also requires that low income households pay an average of 2.4 times as much as the high income households. Thus, the proposed change to a uniform-rate, statewide property tax cannot be justified on the basis that it will reduce the regressivity of the current local property tax system. They are equally regressive.

Within three of the four regions, the statewide property tax substantially increases the average property tax rate. Suburban NYC is the only exception, with the average tax rate declining from $23.32 to $20.40 per $1,000 full value. However, per capita income in these four counties averages $5,325 compared to the state average of $4,442. Thus, the reduction in property tax rates in these high income counties increases the regressivity of the proposed statewide uniform property tax.[8/]

8/ Three factors complicate determination of effective tax incidence. First, the Fleischmann Commission has recommended tax credits for low income families designed to ease their property tax burden. The proposal permits families which pay more than 10 percent of their taxable incomes in property taxes to credit that amount over 10 percent against their state income tax bills. The Commission also recommends that 20 percent of individual rents be considered state property taxes. Anyone for whom this 20 percent figure exceeds the specified 10 percent of taxable income would be permitted to credit the excess against state income taxes. The Commission estimated that about 5 percent of the state property tax take would be refunded under these proposals, the implication being that low income families would benefit substantially. This study made no specific attempt to evaluate the financial impact of these proposals across income class. However, if the total refund goes to the low income group, it would represent a 53 percent reduction in their total tax liability. Since the tax credit is based on taxable income, this extreme case appears very unlikely. Some reduction in tax liability is likely for each income class. In any event, the tax will remain regressive.

An additional complication is the deductions of local property taxes on federal income tax returns. Homeowners who itemize deductions can reduce their taxable income by the entire amount of their property tax liability. To the extent that higher income families itemize deductions, including property taxes, the effective incidence of the property tax is even more regressive than indicated by the above figures.

Finally, in the discussion of the differential incidence resulting from substitution of one tax for another, no attempt is made to account for possible resource allocation adjustments which follow the tax change.

The Fleischmann Commission's proposal to level expenditures up to the 65th percentile will result in either constant or increasing expenditures in all school districts. Therefore, a reduction of tax rates in suburban NYC implies that, under the statewide property tax, the rest of the state will subsidize suburban NYC school districts. The 1969 average tax rate in the suburbs surrounding other urban areas of the state was $21.20 per $1,000 full value. Consequently, the average suburban school district throughout the state will be subsidized by the other regions of the state under a statewide property tax.

The Fleischmann Commission views the statewide property tax as an interim solution. They recommend that it be gradually replaced by a more progressive tax, such as the state income tax. The income tax incidence model applied in this study is designed to evaluate this proposal. Estimates of income tax liability by income class are presented in Table I. Total state income tax liability is estimated to be $2.133 billion. Only about 0.67 percent ($14.2 million) of this total liability is borne by the low income class. The middle income class supports about 21.4 percent ($456.5 million) of the total. A major portion, almost 78 percent ($1,662.7 million), of the income tax liability falls on the upper income class.

Table II indicates that state average income tax liability for low income households is $15 or 0.7 percent of average income. Average liability for middle income households is $106 and represents 1.7 percent of average income in that class. The $779 tax liability per upper income household represents 4.3 percent of income. Since tax liability represents an increasing proportion of income across income classes, the state income tax is clearly progressive.

Implementation of the Fleischmann Commission proposal would necessitate a 10 percent reduction in property taxes each year. Such a reduction would require an increase in state income tax rates sufficient to generate $.2334 billion. This reduction could be accomplished in a number of ways. One alternative is a 10.9 percent increase in income tax rates across all tax brackets.[9/] At the margin, this alternative implies that the tax burden borne by counties in suburban NYC would increase from 24 to 31 percent of the state total, or by about 25 percent. The major beneficiaries of a switch to the income tax would be the non-SMSA counties. This change would reduce the level of support to public education by rural areas from 10.3 to 8.2 percent of the total. Both NYC and counties in SMSA's would experience a 7.2 percent decline in the proportion of the state total they contribute. Thus, regional implications of the state income tax and statewide property tax are quite opposite. The following section summarizes the results of this study and elaborates the policy implications.

Summary and Conclusions

The purpose of this study was to evaluate alternative school financing proposals in New York State. The Fleischmann Commission has proposed that the state assume responsibility for full funding of public primary and secondary education to insure equality of educational opportunity. To finance equalization of per pupil expenditures, the Commission recommended a uniform statewide property tax. This tax would be levied at $20.40 per

9/ Tax rates may be changed at differential rates across income classes. Such changes would imply a different tax incidence among the three income classes as well as among the different regions. It was not within the scope of this paper to evaluate differential rate changes, however, these alternatives are important and warrant further investigation.

$1,000 full value and instituted incrementally over a five year period. Recognizing the regressive features of the property tax, the Commission proposed that a more progressive tax, such as the state income tax, eventually replace the property tax as a revenue source for public education.

Different models are developed to evaluate the property tax at 1969 rates, the property tax at the proposed statewide rate and the state income tax. Results indicate that the proposed shift to a uniform statewide property tax will fail to change the regressivity of the property tax. That is, low income households will pay the same proportion of their incomes in property taxes under both systems. The shift to a statewide property tax results in substantial increases in average tax rates in NYC, Non-SMSA counties and SMSA counties. In suburban NYC the average tax rate declines by almost $2.00 per $1,000 full value. Reduction of property tax rates in these high income counties fails to reduce regressivity of the proposed uniform property tax. Regional implications of this proposal are significant. Substantial tax rate increases occur in NYC. Thus, NYC supports a greater proportion of the total state property tax burden in each income class. Under the proposed change, central cities will be called upon to bear much of the additional burden of financing public education, while the liability of the high income suburbs will be reduced.

The regional shifts in property tax rates also have definite implications for all units of local government. Suburban areas experiencing reduced tax rates will find a corresponding reduction in pressure on the property tax base. Tax effort may be redirected to finance additional public services. However, the implications for central cities are higher tax rates and more pressure on an already burdened tax base.

Implications of the proposal to replace the statewide property tax with revenue generated by the state income tax are quite different. Of the total income tax liability, less than 1 percent is borne by the low income group, 21 percent by the middle income group and almost 78 percent by the high income group. As a percent of income, average tax liabilities are 0.7, 1.7 and 4.3 percent for low, middle and high income classes, respectively. The state income tax is clearly progressive.

There are a number of ways to accomplish the substitution of the income tax for the property tax. The alternative examined in this study was a proportionate change across all tax brackets. This alternative requires a 10.9 percent increase in income tax rates to replace the revenue lost by a 10 percent reduction in the statewide property tax. This substitution would shift the tax burden to high income counties, such as those in suburban NYC. Their proportionate tax liability would increase by about 25 percent. Both NYC and SMSA counties would benefit from a slightly lower total burden. The major beneficiaries would be rural counties whose proportionate tax liability would decline by about 20 percent. Use of the state income tax to finance public education would relieve pressure on local property taxes throughout the state as well as satisfying most critics of present school financing plans.

This study provides a point of departure for additional research into the implications of school financing reform. Results of this and subsequent studies could be combined to provide a complete evaluation of financial reform proposals. In particular, study is needed to examine closely expenditures per pupil and the relationship between expenditures and educational quality.

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