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IDENTIFIERS NEW YORK STATE

ABSTRACT

THIS ANNUAL REPORT SUMMARIZES, IN TABULAR FORM, THE MAJOR ASPECTS OF TAX-BASED SUPPORT OF THE PUBLIC SCHOOLS IN NEW YORK STATE. MATERIAL IS PRESENTED UNDER EIGHT CHAPTER HEADINGS, AS FOLLOWS: 1) PERSPECTIVES IN FINANCING PUBLIC SCHOOL EXPENDITURES DURING THE PERIOD 1968-78, 2) STATE SUPPORT OF EDUCATION IN NEW YORK STATE, 3) BUDGET DEFEATS--1968, 4) CHARACTERISTICS OF URBAN PUPIL POPULATION, 5) URBAN EDUCATION, 6) THE DETERMINANTS OF EDUCATIONAL EXPENDITURES IN NEW YORK STATE, 7) THE REGIONAL SUPPORT OF EDUCATION IN THE ALBANY CAPITAL AREA, AND 8) TEACHER MOBILITY. SPECIAL EMPHASES OF THE REPORT INCLUDE A PROJECTION OF FUTURE NEEDS, THE GENERAL STATE AID FORMULA, URBAN PROBLEMS, PROBLEMS OF MEASURING ABILITY AND NEEDS, AND SPECIAL PROBLEMS IN SCHOOL FINANCE. AN INDEX OF RELATED STUDIES IS APPENDED. (JK)

ED035965

STUDIES OF PUBLIC SCHOOL SUPPORT

1968 SERIES

Studies of Fiscal Support - 1967-68 School Year

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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May 1969

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FOREWORD

The 1969 edition of "The Summary of Research" prepared by the Bureau of Educational Finance Research is intended, as were previous similar publications, to provide an overview of the Bureau's inquiries during the past year concerning the support of education. A number of these inquiries represent continuing concerns, several are new.

The study of urban problems, of expenditure level and its determinants, and of budget defeats, represents a basic concern, the health of the fiscal provision for education.

The study of "The Regional Support of Education" is a new concern related to the problems of finding adequate revenue and to the changing nature of school functions. The inquiry into teacher mobility represents an attempt begun a year before to assess the important effect of staff on expenditure.

The studies comprising this publication were done under the direction of Lloyd Hogan. It is the third such publication done under his direction. A special word of appreciation is due to Mr. Hogan for his work inasmuch as he has received a promotion to another division of the State Education Department. The staff members who contributed to the publication are to be commended. They include: Fred Bentley, Dave Billmyer, Thomas Calvin, William Dormandy, and Ellen Lindop. Others who contributed were: Diana Rainville and Margaret Riedy.

John W. Polley, Director
Division of Educational Finance

TABLE OF CONTENTS

<u>Chapter</u>		<u>Page</u>
Part A		
<u>PROJECTION OF FUTURE NEEDS</u>		
I	Perspectives in Financing Public School Expenditures During the Period 1968-78	1
Part B		
<u>THE GENERAL STATE AID FORMULA</u>		
II	State Support of Education in New York State	10
III	Budget Defeats - 1968	21
Part C		
<u>URBAN PROBLEMS</u>		
IV	Characteristics of Urban Pupil Population	26
V	Urban Education	40
Part D		
<u>PROBLEMS OF MEASURING ABILITY AND NEEDS</u>		
VI	The Determinants of Educational Expenditures in New York State	46
Part E		
<u>SPECIAL PROBLEMS IN SCHOOL FINANCE</u>		
VII	The Regional Support of Education in the Albany Capital Area	61
VIII	Teacher Mobility	72
	<u>Appendix:</u> Index of Studies Available for Distribution	

v/vi

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	Trend in Public School Expenditures and Their Sources, New York State, 1945-69	3
2	Projection of Public School Expenditures Under Two Alternative Models, New York State, 1968-78	7
3	Tax Limit Data for City School Districts in Cities Under 125,000 Population, 1967-68	14
	A. Tax Limit of 1.25 Percent	
	B. Tax Limit of 1.50 Percent	
	C. Tax Limit of 1.75 Percent	
	D. Tax Limit of 2.00 Percent	
4	Budget Defeats in New York State School Districts by Location of District, 1965, 1966, 1967, and 1968	22
5	Pupil Density and Related Characteristics of the School Population in the 82 Most Densely Settled Districts, 1967-68	28
6	Recapitulation of Table 5 Data, 82 Districts	32
7	A Comparison of Expenditure Levels and Related Data on 82 Most Dense Districts, 1967-68	34
8	Recapitulation of Table 7 Data (A Comparison of Median Data) 82 Districts	38
9	Cities Losing Tax Limit Referenda, 1967 and 1968	39
10	Urban Education Aid, Eligible Districts and State Aid Allocation for School Year 1968-69	43
11	Size of District and Selected Per Pupil Characteristics, Urban Aid Districts, 1967-68	44
12	Size of District, ADC Pupils, Underachievers, Nonwhite Pupils, and Pupil Density in 27 Urban Aid Districts, 1967-68	45
13	Distribution of Per Pupil Operating Expenditures, New York State School Districts, 1966-67	47

LIST OF TABLES
(Concluded)

<u>Table</u>		<u>Page</u>
14	Regression Equation Relating Per Pupil Expenditures to Five Explanatory Variables, New York State, 1966-67	55
15	Relationship Between Actual and Estimated Expenditures for a Sample of School Districts, New York State, 1966-67	56
16	Regression Equations Relating Per Pupil Expenditures to Five Explanatory Factors, New York State School Districts, 1963-64 to 1966-67	60
17	Distribution of Wealth, Tax Rate, and Revenues Among 42 Capital Area Districts, 1966-67	62
18	Distribution of Per Pupil Expenditures Among 42 Capital Area Districts, 1966-67	64
19	Distribution of Tax Rate for Debt Service and Transportation Under Present System Plan A Among 42 Capital Area Districts, 1966-67	66
20	Effect on Tax Rates of Plan B for 42 Capital Area Districts, 1966-67	69
21	Mobility of Teaching Staff 1921-22 to 1965-66	74
22	Mobility of Teachers from Selected Years, 1950-51 to 1960-61	75
23	New York State Exclusive of New York City	76
23a	Metropolitan New York Area Exclusive of New York City	76
23b	Upstate Metropolitan and Nonmetropolitan	77
23c	Mobility Within and Between Districts	78
24	Recruitment of Teaching Staff for School Year 1965-66 Rated by Experience and Sex	79
24a	Recruitment of Teachers by Geographic Region by Equal Intervals of New Entrants, 1921-22 to 1965-66 (Sample #1)	80
24b	Recruitment of Teachers by Geographic Region for 4 Selected Years (Sample #2)	81

LIST OF FIGURES

<u>Figure</u>		<u>Page</u>
1	Trend in Public School Expenditures, Local Tax, and State Aid, New York State, 1945-69	5
2	Projection of Public School Expenditures Under Two Sets of Assumptions, New York State, 1968-78	8

PART A

PROJECTION OF FUTURE NEEDS

PERSPECTIVES IN FINANCING PUBLIC SCHOOL EXPENDITURES
DURING THE PERIOD 1968-78

Background

Since the end of World War II public school educational expenditures in New York State have been increasing steadily, doubling approximately every 7 or 8 years. In 1945 these expenditures were at \$352 million and in 1968 are estimated to be \$3,621 million. Partly responsible for this rapid increase have been (a) the growth in the number of pupils each year, (b) a shift in the distribution of the pupil population away from the rural areas and the older central cities towards the high expenditure suburban areas, (c) the rising prices of educational resources, and (d) improvements in the quality of education made possible by a general increase in economic affluence.

During the same period State aid to schools has likewise increased rapidly, going from \$111 million in 1945 to \$1,651 million in 1968. The increase has not been a steady one. In certain years, State aid has been increased drastically as a consequence of legal revisions of the distribution formula; while in other years, the increase has been rather modest when the basic elements of the formula were not revised. The State aid percentage of expenditures varied between a low 31.5 percent in 1945 and a high 44.5 percent in 1963 as a consequence of the Diefendorf legislation; by 1969 this percentage had increased to a peak of 49.0 percent due to a substantial increase in the operating expense aid.

Local taxes also increased greatly, going from \$234 million in 1945 to \$1,908 million in 1969. The increase in taxes over the period has been somewhat unsteady, adjusting itself to movements in State aid. The proportion of expenditures supported by local taxes ranged between a high 66.5 percent in 1945 and an estimated low 46.3 percent in 1968.

Other revenues in support of public school expenditures during this period have been relatively minor and have consisted mainly of inter-district revenues (mainly tuition receipts), net changes in balances held from previous years, Federal aid, and miscellaneous nontax revenues. Beginning with 1967, however, a new and important element has entered the picture. The Federal Elementary and Secondary Education Act of 1965 shows its first full year's impact on expenditures. In 1967, an estimated \$159 million of these funds were actually spent by school districts.

Table 1 summarized the trend in public school expenditures and the sources of those expenditures during the period 1945 to 1969. Figure 1 displays these same trends graphically.

Expenditure Forecasts

Prospective events of the next decade point to a continued increase in public school expenditures, with a corresponding need for ingenuity at the State and local levels in financing these expenditures.

Table 1

TREND IN PUBLIC SCHOOL EXPENDITURES AND THEIR SOURCES^a
NEW YORK STATE, 1945-69
 (\$ Million)

School Year Ending	Total Expenditures	SOURCE OF THE EXPENDITURES					
		State Aid ^b		Local Taxes ^b		Residual ^c	
		Amount	Percent	Amount	Percent	Amount	Percent
1945	\$ 352	\$111	31.5%	\$234	66.5%	\$ 7	2.0%
46	378	121	32.0	242	64.0	15	4.0
47	425	137	32.2	278	65.4	10	2.4
48	477	155	32.5	306	64.2	16	3.4
49	529	180	34.0	332	62.8	17	3.2
50	563	239	42.5	320	56.8	4	.7
51	616	250	40.6	340	55.2	26	4.2
52	687	272	39.6	386	56.2	29	4.2
53	755	284	37.6	445	58.9	26	3.4
54	821	301	36.7	492	59.9	28	3.4
55	925	342	37.0	545	58.9	38	4.1
56	1,031	374	36.3	633	61.4	24	2.3
57	1,188	465	39.1	691	58.2	32	2.7
58	1,329	514	38.7	790	59.4	25	1.9
59	1,460	594	40.7	851	58.3	15	1.0
60	1,596	636	39.8	938	58.8	22	1.4

Table 1 (Concluded)

TREND IN PUBLIC SCHOOL EXPENDITURES AND THEIR SOURCES^a
 NEW YORK STATE, 1945-69
 (\$ Million)

School Year Ending	Total Expenditures	SOURCE OF THE EXPENDITURES					
		State Aid		Local Taxes ^b		Residual ^c	
		Amount	Percent	Amount	Percent	Amount	Percent
1961	\$1,750	\$ 748	42.7%	\$ 964	55.1%	\$ 38	2.2%
62	1,915	801	41.8	1,074	56.1	40	2.1
63	2,146	954	44.5	1,161	54.1	31	1.4
64	2,324	1,016	43.7	1,285	55.3	23	1.0
65	2,528	1,088	43.0	1,396	55.2	44	1.7
66	2,788	1,283	46.0	1,490	53.4	15	0.6
67	3,271	1,472	45.0	1,610	49.2	189	5.8
68	3,621	1,651	45.6	1,732	47.8	238	6.6
69	4,118	2,018	49.0	1,908	46.3	192	4.7

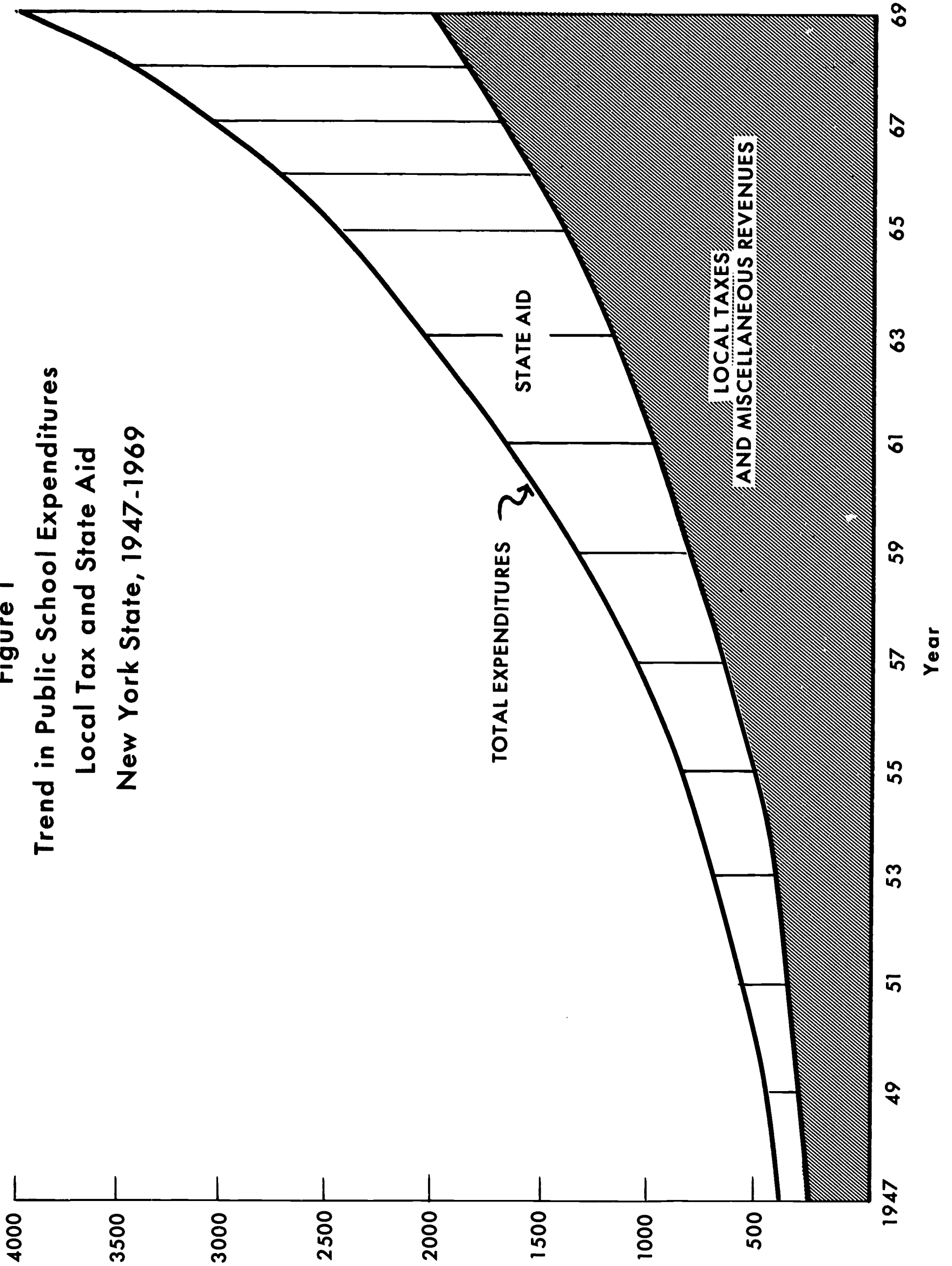
^aThe table is constructed on the assumption that all State aid and local taxes are actually spent; the residual is thus the difference between total expenditures and these two items.

^bLocal and property and nonproperty tax levies.

^cFederal aid, miscellaneous nontax revenues, net change in balances from previous year.

(\$ Millions)

Figure 1
Trend in Public School Expenditures
Local Tax and State Aid
New York State, 1947-1969



A study was conducted in which two independent forecasts were made of public school expenditures in New York State during the decade 1968-78. Table 2 shows these forecasts, while Figure 2 displays them graphically.

Each of the projections shows a consistent rise in expenditures over the next decade. Model I projects a level of expenditures of \$5,528 million in 1973 and \$8,414 million by 1978. The base years, however, for projection of the trend were 1967 and 1968. It thus builds into the base the very large increase in State aid during these 2 years. This model may, therefore, be considered a maximum estimate.

Model II projects a level of expenditures of \$5,347 million in 1973 and \$7,489 million by 1978. This model makes certain assumptions about the normal rate of change in expenditures and a reaction to this change by local districts, based upon their anticipated change in State and Federal aid. Actual and calculated State aid for 1968 and 1969 were used. Beyond 1969, the assumption was made that the 1968 laws continue unchanged. Any change in the law will necessarily call for a change in these projections. These projections are therefore to be considered low estimates.

Table 2

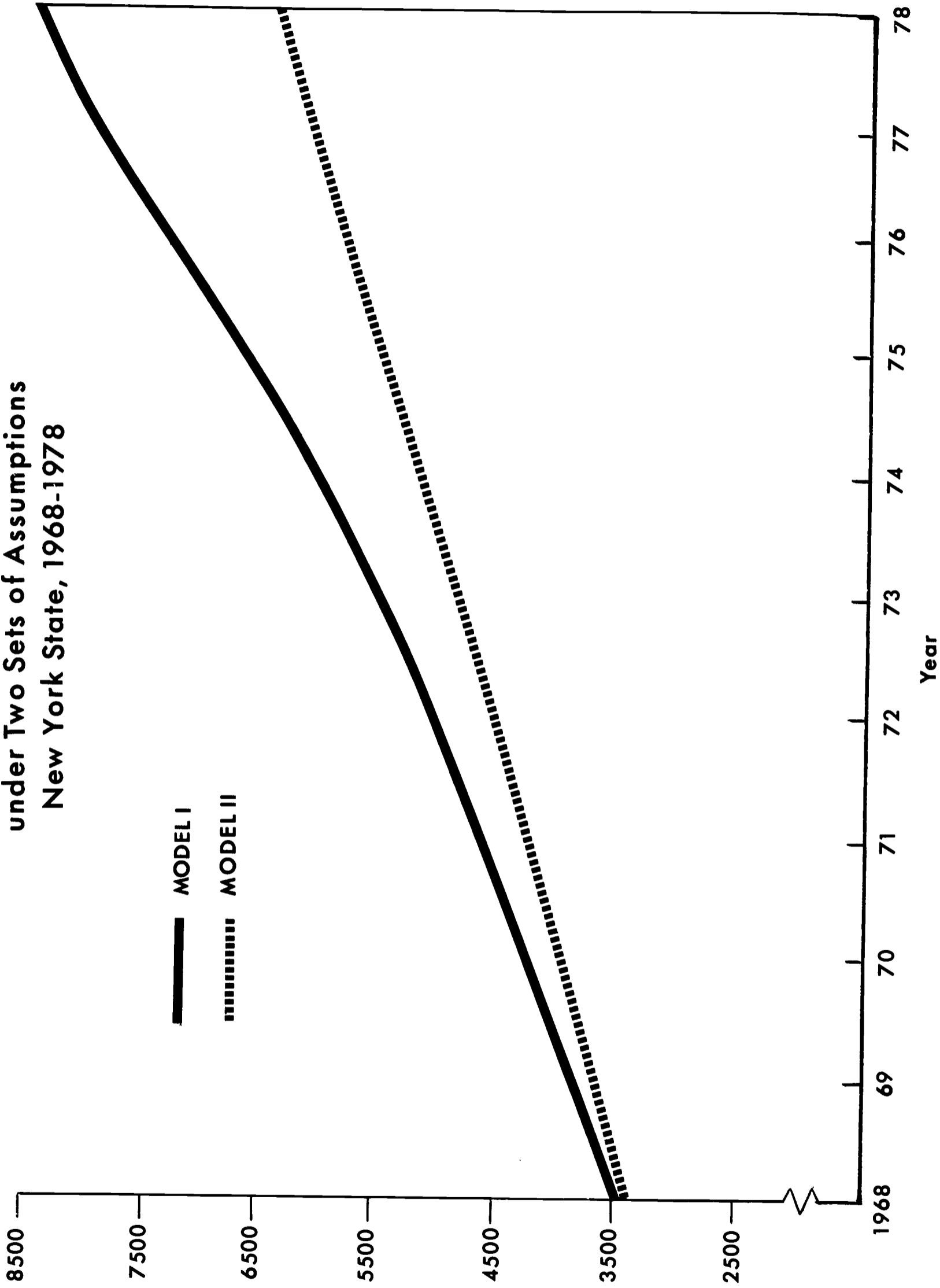
PROJECTION OF PUBLIC SCHOOL EXPENDITURES
 UNDER TWO ALTERNATIVE MODELS
 NEW YORK STATE, 1968-78

(\$ Million)

School Year	Model I Projections		Model II Projections	
	Amount	Annual Change	Amount	Annual Change
1968	\$3,615	\$344	\$3,615	\$344
1969	3,946	331	4,046	431
1970	4,295	349	4,291	245
1971	4,673	378	4,607	316
1972	5,082	409	4,964	357
1973	5,528	446	5,347	383
1974	6,012	484	5,749	402
1975	6,539	527	6,166	417
1976	7,113	574	6,596	430
1977	7,736	623	7,037	441
1978	8,414	678	7,489	452

Total Public School Expenditures (\$ Millions)

Figure 2
Projection of Public School Expenditures
under Two Sets of Assumptions
New York State, 1968-1978



Conclusions

The two projections should not be construed as exact predictions of what will happen during the next decade. What in fact takes place will be the result of direct State and local action deliberately designed to shape school financial policy. It will also increasingly depend substantially on Federal aid to education. Thus, the interplay of the State-local-Federal relationships will be the decisive factor in shaping the actual course of events.

The projections shown, however, are designed

- (a) to indicate the types of magnitudes we shall be dealing with during the coming decade;
- (b) to illustrate some targets which are possible or achievable under certain assumed State, Federal, and local policies; and
- (c) to provide clear and ready signals to the policy maker concerning possible future consequences of present financial policies.

The main conclusion drawn from the study is that expenditures will continue to rise over the next decade. If there is no change in existing State aid legislation, the State aid percentage will deteriorate and correspondingly local tax levies will have to increase to record levels.

The issues are clear. Both the State and local school districts are faced with a challenging task in the next decade to develop a financial structure that will provide quality education for our youth.

PART B

THE GENERAL STATE AID FORMULA

II

STATE SUPPORT OF EDUCATION IN NEW YORK STATE

In the early years of New York State history, public education was financed almost entirely by the local school districts, which raised the funds by taxes upon real estate. Since the mid 1920's, however, the State has assumed a substantial share of the burden.

The State's participation has been based on three fundamental principles:

1. tax sharing -- utilization of the broad tax base of the State to augment the narrow base of property taxes available to local districts,
2. equalization -- proportionately greater assistance to poorer districts to assure a minimum level of support,
3. incentives -- for programs of educational improvement indentified by the State as desirable.

The New York State system of finance has served as a model for many other states. It has enabled all districts to maintain a satisfactory level of education while allowing those which are able and willing to provide additional revenue to support pioneering programs of educational excellence. The schools have provided comprehensive educational programs addressed to the wide ranging needs of their many students, and the system has been acclaimed throughout the Nation.

It has responded to new needs as these emerged. The number of districts has been reduced to about 800 from the 12,000 of 40 years ago, thus eliminating many which were small and inefficient. Boards of Cooperative Educational Services have been established to provide special services for handicapped children and vocational students on a regional basis. Problems of central cities have been recognized through the density correction and urban educational aid. The unique needs of New York City have been recognized

through proposals to decentralize within the citywide framework.

These are but a few of the many changes which have been made, but they illustrate that the incentive programs have served to encourage educational improvements to meet new needs. Society, however, is changing more rapidly than ever, and the challenges facing education are unprecedented. The late 1960's will require modification in the pattern of State support.

Many assumptions must be reexamined. It is becoming evident that equality of educational opportunity may require a reallocation of funds, so that greater resources are placed where the educational problems are most severe. Further modifications of school district boundaries may be needed in order to reduce the wide variation in local tax resources which continues to exist. There is increasing concern that the education of children in some communities is inhibited by the unwillingness of its residents to provide adequate tax support, or in the case of cities, because of the tax limits imposed under the Constitution. It is uncertain whether the educational system can depend upon the local property tax to the extent which has prevailed. In view of these and a host of other questions, a thorough reassessment of the fiscal needs of New York State's educational system would be highly desirable.

The recommendations which follow are offered as interim steps toward meeting present day problems pending such a complete review.

Increase in the State Aid Ceiling

School districts in New York State continue to increase their expenditures for education at a rapid rate. The estimated average expenditure per pupil (in weighted average daily attendance) during 1967-68 was \$855, the current estimate for 1968-69 is \$960, an increase of slightly over 12 percent. This is somewhat greater than the rate of increase over the past 7 years, which has averaged over 8 percent.

The rapid increase in the expenditures for education has been matched by a comparable rise in the cost of other local governments. The total cost of education advanced 43.6 percent in the period from 1962 to 1966. The total cost of local government increased 42.6 percent over the same period, not including several special governmental authorities who also performed some local functions.

The support of education is shared by the State and local districts up to an expenditure per pupil determined by the State and known as the ceiling. Periodically, the Legislature raises the ceiling as the expenditures rise. Last year the ceiling was raised from \$660 to \$760 which was approximately the expenditure per pupil in the median district. Since the costs have continued to climb, a further increase in the ceiling should be considered this year in order that the State continue to bear its share of the rising expenditures.

It is recommended that the ceiling be increased to \$860, which is approximately the expenditure level of the average district in 1967-68. The estimated cost for the 1969-70 State fiscal year would be \$86 million.

Change in State Sharing Ratio

The present formula stipulates that in a district of average taxable wealth the State provides 49 percent of the support of the expenditure per pupil up to the established ceiling. The percentage varies from district to district in inverse proportion to taxable wealth, with a minimum guarantee, or "flat grant" of 36 percent. There are several reasons why consideration should be given to a fundamental change in the State aid formula; namely, increasing the percentage of State sharing:

- a) The local tax base for school purposes consists primarily of the property tax. The property tax base is a relatively narrow one compared to the broader base available to the State which included all taxable resources. The total full value of property in New York State is increasing at a less rapid rate than income. From 1961-66 personal income in the State rose about 30.6 percent, while the full value of taxable real property increased by 23.6 percent. (Local governments have in recent years levied sales, as well as property taxes, but for the most part these are not directly available to support education.)
- b) Despite the increased State aid this year, 76 local budgets were defeated as against 69 in 1967 and a previous high of 39 in 1963. This is an indication that many local communities are encountering severe problems in meeting mounting costs even with the increasing State aid available in this period.
- c) Several cities find it impossible to raise their tax levels for education because they have reached their tax limits. Among the Big Six, only Albany has an appreciable leeway in the property tax. Among the remaining 56 cities at least five have no leeway at all under the 2 percent limit (Table 3). Others have encountered difficulty in achieving the 60 percent majority required to raise the tax limit. Of the 29 attempts during the past 15 years there have been only seven successes.
- d) The proposal to raise the State aid sharing ratio would be particularly beneficial to those districts where the largest numbers of students reside, including the six largest cities, as well as many other large districts. This is because an upward revision of the State's sharing ratio would assist the districts in the median and higher financial ability range proportionately more than those districts in the lower ability range, which presently benefit most from the equalization principle.

Table 3

TAX LIMIT DATA FOR CITY SCHOOL DISTRICTS IN CITIES UNDER 125,000 POPULATION
 A. TAX LIMIT OF 1.25 PERCENT
 1967-68

Cities	Percentage Limit		Tax Limit	Tax Levy	Tax Margin	Percent Tax Margin
	1952-53	1967-68				
1. Plattsburgh	1.25	1.25	\$ 929,443	\$ 920,081	\$ 9,362	1.0
2. Oswego	1.25	1.25	1,691,144	1,668,843	22,301	1.3
3. Rennselaer	1.25	1.25	509,287	498,091	7,196	1.4
4. Binghamton	1.25	1.25	4,926,011	4,205,413	90,598	2.1
5. Auburn	1.25	1.25	2,031,639	1,912,411	119,223	5.9
6. Middletown	1.25	1.25	1,450,155	1,303,029	147,126	10.1
7. Niagara Falls	1.25	1.25	6,771,689	6,012,968	758,721	11.2
8. Elmira	1.25	1.25	3,263,742	2,792,100	471,642	14.5
9. Fulton	1.25	1.25	1,032,365	849,905	182,460	17.7
10. Hudson	1.25	1.25	991,471	769,884	221,587	22.3
11. Gloversville	1.25	1.25	788,362	576,955	211,407	26.8
12. Lackawanna	1.25	1.25	4,847,737	3,356,420	1,491,317	30.8
13. Utica	1.25	1.25	4,542,189	3,054,107	1,488,107	32.8
14. Tonawanda	1.25	1.25	1,304,254	670,567	633,687	48.6
15. Canandaigua	1.25	1.25	910,346	233,703	676,643	74.3

Table 3 (Continued)

TAX LIMIT DATA FOR CITY SCHOOL DISTRICTS IN CITIES UNDER 125,000 POPULATION
 B. TAX LIMIT OF 1.50 PERCENT
 1967-68

Cities	Percentage Limit		Tax Limit	Operating Tax Levy	Tax Margin	Percent Tax Margin
	1952-53	1967-68				
1. Poughkeepsie	1.50	1.50	\$2,580,166	\$2,578,612	\$ 1,554	0.1
2. Corning	1.50	1.50	2,733,574	2,722,830	10,744	0.4
3. Troy	1.25	1.50	1,907,292	1,855,292	51,762	2.7
4. Ithaca	1.25	1.50	3,130,370	3,037,272	93,098	3.0
5. Schenectady	1.50	1.50	4,787,510	4,611,151	176,359	3.7
6. Olean	2.00	1.50	1,328,570	1,258,051	70,519	5.3
7. Lockport	1.50	1.50	2,144,089	1,992,310	151,779	7.1
8. Saratoga Spgs.	1.50	1.50	1,110,292	971,407	138,885	12.5
9. Beacon	1.50	1.50	1,349,991	1,141,360	208,631	15.5
10. Oneonta	1.50	1.50	1,018,265	853,530	164,735	16.2
11. Cortland	1.25	1.50	1,283,570	1,021,920	261,650	20.4
12. Cohoes	1.50	1.50	757,184	757,798	159,386	21.0
13. Watervliet	1.50	1.50	515,330	388,313	127,017	24.6
14. Watertown	1.50	1.50	2,038,771	1,468,179	570,592	28.0
15. Newburg	1.50	1.50	3,663,865	2,620,015	1,043,850	28.5
16. Geneva	1.25	1.50	1,262,514	808,440	454,074	36.0
17. Hornell	1.50	1.50	673,807	422,110	251,697	37.4
18. Port Jervis	1.50	1.50	816,750	356,312	460,438	56.4

Table 3 (Continued)

TAX LIMIT DATA FOR CITY SCHOOL DISTRICTS IN CITIES UNDER 125,000 POPULATION
C. TAX LIMIT OF 1.75 PERCENT
1967-68

Cities	Percentage Limit		Tax Limit	Operating Tax Levy	Tax Margin	Percent Tax Margin
	1952-53	1967-68				
1. Rye *	1.50	1.75	\$2,333,119	\$2,333,119	\$ 0	0
2. New Rochelle	1.50	1.75	8,184,925	8,183,438	1,487	0
3. Glen Cove	1.50	1.75	2,780,766	2,545,777	234,989	8.5
4. White Plains	1.50	1.75	7,971,558	7,254,830	716,728	9.0
5. Kingston	1.75	1.75	4,251,407	3,695,145	556,262	13.1
6. No. Tonawanda	1.75	1.75	2,891,557	2,495,344	396,213	13.7
7. Glens Falls	1.50	1.75	1,468,850	1,183,612	285,238	19.4
8. Jamestown	1.75	1.75	3,124,052	2,356,900	767,152	24.6
9. Mechanicville	1.50	1.75	641,419	438,238	158,181	24.7
10. Little Falls	1.50	1.75	661,455	487,839	173,616	26.2
11. Oneida	1.50	1.75	1,054,329	710,171	344,158	32.6
12. Amsterdam	2.00	1.75	1,655,759	1,084,311	581,448	34.9
13. Dunkirk	1.75	1.75	2,929,005	1,479,397	1,449,608	49.5
14. Rome	1.75	1.75	3,435,243	1,542,820	1,892,423	55.1
15. Johnstown	1.75	1.75	572,357	250,781	321,576	56.2
16. Salamanca	2.00	1.75	451,386	185,636	265,750	58.9
17. Sherrill	1.75	1.75	946,751	311,315	635,436	67.1
18. Ogdensburg	1.75	1.75	771,682	173,774	597,908	77.5

* Voted 2% 1968

Table 3 (Concluded)

TAX LIMIT DATA FOR CITY SCHOOL DISTRICTS IN CITIES UNDER 125,000 POPULATION
 D. TAX LIMIT OF 2.00 PERCENT
 1967-68

Cities	Percentage Limit		Tax Limit	Operating Tax Levy	Tax Margin	Percent Tax Margin
	1952-53	1967-68				
1. Mt. Vernon	2.00	2.00	\$7,359,234	\$7,276,273	\$ 82,961	1.1
2. Long Beach	2.00	2.00	5,186,797	5,088,593	98,204	1.9
3. Peekskill	2.00	2.00	1,604,992	1,574,903	30,089	1.9
4. Batavia	2.00	2.00	1,969,768	1,471,972	497,796	25.3
5. Norwich	2.00	2.00	1,092,931	687,280	405,651	37.1

It is recommended that the State sharing ratio be changed to 54 percent for the district of average wealth. It is further recommended that the flat grant level be 42 percent. If enacted, with the ceiling remaining at \$760, the cost of these proposals would be approximately \$68 million for the State fiscal year 1969-70.

High Tax Rate Aid

Last year the Legislature enacted 1-year legislation which provided tax relief for districts of low or moderate financial ability whose tax rates were unusually high. The 62 districts which qualified under this program during 1967-68 were generally those which were hard pressed to maintain educational programs comparable with those of more able neighboring districts. It is recommended that this aid be continued for the 1969-70 school year. The estimated additional cost of this program for the balance of the fiscal year 1968-69 and the first half-payment of 1969-70 will require \$10.5 million for the fiscal year 1969-70.

Aid for Summer School Programs

For several years the Board of Regents has recommended that attendance in approved summer school courses be converted into basic WADA figures, and aided under the regular operating expenditure formula. This recommendation should be renewed this year. The estimated cost of the program for the first fiscal year is approximately \$6.5 million.

Aid for Extended School Year

Since 1962 the Department, with the encouragement and support of the Legislature, has conducted experiments with extended school year

arrangements in several school districts. Some districts are now apparently ready to move from the experimental to a permanent arrangement, provided some financial incentive is made available to help gain public acceptance of an unfamiliar practice. It is recommended that modest financial incentive be authorized for such districts for a limited time until the program is established. The estimated cost for the fiscal year 1969-70 is approximately \$200,000 for planning purposes. Thereafter, about \$1.5 million will be needed for support in the first year. This would rise to approximately \$4 million the third year and thereafter stabilize at about that level.

Aid for Continuing Education

The Position Paper on Continuing Education, recently adopted by the Board of Regents, proposes a plan for complete State funding of adult basic literacy, high school equivalency, Americanization education, and approved occupational education courses for adults. The estimated cost of this plan is \$13.3 million for the fiscal year.

Urban Aid

Education in urban areas is an urgent issue which vitally concerns all the citizens of our State, no matter where they live. The recent enactment of an Urban Education Program by the State Legislature is an expression of such urgency, encouraging constructive action in our central task of improving and enhancing urban school systems of the State.

An appropriation of \$26 million was made for the 1968-69 fiscal year, with the understanding that an additional \$26 million would be appropriated

in 1969 for a total of \$52 million available during the 1968-69 school year. Under guidelines established by the Legislature and the Commissioner of Education, these funds are allocated to those urban communities having the largest proportion of educationally deprived and economically disadvantaged. Presently 27 such communities are receiving this special assistance. Programs funded by this special aid now reach approximately 325,000 students through the State. We estimated that 780,000 students in these school districts need special services, and to provide them, the funds for this program must be doubled next year. The estimated cost of this plan is \$77.6 million for the fiscal year.

III

BUDGET DEFEATS IN 1968

Introduction

Budgets defeats in New York State school districts have been studied annually for the past several years. The matter is of increasing concern since the number of defeats continues to rise each year.

The reasons for budget defeats are many and complex. Some lie in local conflicts which can only be understood with a thorough knowledge of the local scene. This report, however, focuses on State and local provisions which may be expected to have an important bearing on the outcome of tax referenda. It provides a careful analysis of these important facets of local policy.

In 1968, an all-time high of 76 New York State school districts rejected their budgets. The preceding year's total of 69 was a record high at that time -- more than double the 1966 total of 33 and far larger than the previous high of 39 in 1963.

This is a report on a study which attempted to explore the characteristics of the budget-rejecting districts, to compare their characteristics with those of the budget-passing districts, and to suggest reasons for the defeats.

Budget Defeats by Location

For many years budget defeats have been concentrated in the New York City Standard Metropolitan Statistical Area (SMSA). This is still true. There is evidence, however, of a changing pattern. The proportion of defeats in the nonurban counties and the urban counties outside of New York City SMSA, rose this year.

Table 4 illustrates the pattern of defeats since 1965.

The percentage of defeats among all urban districts fell only slightly from 88 percent to 79 percent, while the New York City SMSA percentage dropped from 75 percent to 49 percent, and the percentage for the other urban counties rose from 13 percent to 30 percent. This reverses a trend of the past 3 years.

Table 4
BUDGET DEFEATS IN NEW YORK STATE SCHOOL DISTRICTS
BY LOCATION OF DISTRICT
1965-68

Location of District	1965		1966		1967		1968	
	Number	%	Number	%	Number	%	Number	%
Urban	12	75	26	79	61	88	60	79
Nonurban	4	25	7	21	8	12	16	21
-----	-----	-----	-----	-----	-----	-----	-----	-----
Total State	16	100	33	100	69	100	76	100
New York City SMSA	8	50	23	70	52	75	37	49
Other Urban	4	25	3	9	9	13	23	30
All Outside N.Y.C.	8	50	10	30	17	25	39	51

Financial Characteristics of Budget-Rejecting Districts

The budget-rejecting districts for 1967 and 1968 were compared with other districts on several financial measures.

Last year's pattern of defeats seemed to indicate a revolt of the affluent. Measured by tax rate, per pupil operating expense, and average full value of taxable real property per pupil, the rejecting districts were well above the average. They paid more for their educational programs and they also had more capacity to pay. This year there seems to be a change in this pattern. The amount they pay is still high, while the capacity to pay (measured by the property tax base) is down considerably and close to average.

The nonurban rejecting districts are the only ones above average wealth (measured by the property tax base). Last year they were 32 percent above average and this year they are 8 percent. They are, however, as high as last year on tax rate and operating expense, and their local levy per pupil is more than 50 percent above average.

Districts with Repeated Defeats

Of the 670 major school districts in New York State which vote on their budgets (the 62 cities do not vote), 151 (or 22 percent) have experienced at least one budget defeat in the past 4 years. Of these, 36 (almost one-fourth) have had two or more defeats. Not surprisingly, most of the 36 are in the New York City SMSA. The nonurban and other SMSA repeaters are also typically large districts with above average tax rates.

Last year high tax aid was available to districts which spent above \$760 per pupil and had a tax rate above the State average. Of the 62 districts which claimed high tax aid, 35 had a history of one or more budget defeats over the last 4 years; 33 of the 35 are located in the New York City SMSA. Of the 33, 15 had a history of repeated defeats. In New York City 14 SMSA districts claiming high tax aid, rejected their budgets last year

passed them this year. Of the 62 districts receiving high tax aid, 16 that had passed their budgets in 1967 rejected them in 1968.

Reasons for Budget Defeats

The most frequently given and obvious reason for budget defeats is voter resistance to higher taxes. This year the taxpayers were asked to accept far larger increases than ever before. The median tax rate increase among the rejecting districts was \$3.54 per \$1,000 true valuation compared to last year's \$2.57. In many instances the increase was 25 or 30 percent above last year's rate. Tax rates have been increasing steadily, but never at that pace. Between 1961 and 1966 the total increase was 18 percent, an average increase of 3.6 percent a year.

The rejecting districts were usually asked to accept far larger increases than the districts around them. In Suffolk County, for example, the median increase for the rejecting districts was \$6.02 while the median for those passing their budgets was \$1.79.

The median rejecting rate increase for the New York urban counties was \$4.31, and for all others it was \$2.93.

A questionnaire was sent to all districts to determine whether controversies on issues other than taxes had any appreciable effect on budget defeats. No consistent pattern emerged. Some controversies were reported in both budget-rejecting and budget-accepting districts. The largest number by far, however, in both categories, related to voter resistance to high taxes.

Final Results of Budget Elections

At the start of the 1967-68 school year five districts were on a contingency budget. Of these, four continued the year on a contingency plus approved propositions basis; that is, the voters did not approve a budget but they did approve certain additional items. This year (1968-69) the number of districts on a contingency budget has risen to 14, only one of which is not augmented by any additional propositions. Several districts submitted a budget to the voters as many as four times. None plans to try again. The contingency budgets, then, as well as the defeats, are at an all-time high.

Summary

Budget defeats, once concentrated in the New York City SMSA, are now occurring more often in other areas, and resistance to higher taxes seems to be spreading and hardening. Over 90 percent of the major districts, however, did pass their budgets on the first try.

PART C

URBAN PROBLEMS

IV

CHARACTERISTICS OF URBAN PUPIL POPULATION

One of the simplest and most widely used criteria of population density is the number of people per square mile within a well-defined bounded area. For school district purposes, the density may be defined as the ratio of pupils attending public schools to the square miles of the district. One important shortcoming of this measure is that it deals only with public school pupils. The city of Albany is a good example since it may well have over 50 percent of its pupils in private and parochial schools.

The larger cities of New York State with a high pupil concentration have long contended they have a special need for funds because of the large number of pupils with special needs. Some of these funds are needed for the educational underachievers, the mentally retarded, and the physically handicapped. It can be shown that districts, other than cities, with a high concentration of pupils have many of the characteristics that we associate with cities.

In considering the problems of the cities and these other districts, and the pressing need for aid to these areas, this report presents data about pupil density. It also compares certain characteristics associated with educational underachievement and presents expenditure patterns of these same districts.

Some characteristics of the pupil population are presented in Table 5 and some expenditure data are presented in Table 7.

The characteristics of the pupil population presented are number of (1) Aid to Dependent Children (ADC) pupils, (2) educational under-achievers, (3) nonwhite pupils, and (4) handicapped pupils.

A statistical analysis to discover elements which might explain the variation in pupil testing scores indicates that ADC children and nonwhite pupils jointly account for 93 percent of the variation among counties in the number of pupils below minimum competence level on the sixth grade reading tests.^{1/}

Evidence presented by the Conference of Large City Boards of Education, and a review of contracts used by Boards of Cooperative Educational Services indicate that it is more costly to conduct special classes for the handicapped than regular classes.

Some items that reflect or influence the expenditure pattern of the districts are: 1) approved operating expense per pupil, 2) professional staff ratio, 3) tax rate, and 4) full value per pupil.^{2/}

Table 5 lists 82 school districts in the upper level of density, together with some characteristics of the pupil population. For ease of handling, the table was broken into two parts with a sub cutoff at 1,200 pupils per square mile. (The pupils per square mile in the major districts range from 3,376 in New York City to 1 in several rural counties.)

^{1/} Studies of Public School Support - 1967 Series - Part C, Section VI, Some Problems of Urban Education - Bureau of Educational Finance Research, 194 Washington Avenue, Albany, New York

^{2/} The Determinants of Educational Expenditures in New York State - 1968 Bureau of Educational Finance Research - 194 Washington Avenue, Albany, New York

Table 5

PUPIL DENSITY AND
RELATED CHARACTERISTICS
OF THE SCHOOL POPULATION
IN THE 82 MOST DENSELY SETTLED DISTRICTS
1967-68

Rank	District	County	1965-66 Survey Pupils Per Sq. Mile	Pupils	ADC Pupils	1965-66 Survey Mentally Retarded And Physically Handicapped	Estimated Under- achievers	Nonwhite Pupils
1	New York City	New York City	3,376	1,029,200	273,540	24,489	455,936	542,264
2	Hempstead 5	Nassau	3,362	17,611	322	112	2,694	156
3	Hempstead 26	Nassau	2,978	5,767	0	27	842	99
4	Mount Vernon	Westchester	2,923	11,848	1,891	254	3,637	5,591
5	Oyster Bay 18	Nassau	2,569	7,462	89	56	1,052	29
6	Hempstead 3	Nassau	2,260	17,704	190	91	2,001	173
7	Hempstead 8	Nassau	2,233	3,736	538	262	1,438	1,963
8	No. Hempstead 10	Nassau	2,152	4,925	83	62	911	1,963
9	Lynbrook	Nassau	1,950	3,674	79	----	187	42
10	Buffalo	Erie	1,887	72,204	14,386	2,327	28,160	26,776
11	Oyster Bay 17	Nassau	1,850	12,422	141	36	2,099	77
12	Hempstead 10	Nassau	1,835	9,102	141	4	883	62
13	Babylon 3	Suffolk	1,662	9,477	334	72	1,952	893
14	Yonkers	Westchester	1,625	29,797	3,547	660	7,986	4,283
15	Oyster Bay 21	Nassau	1,615	6,243	79	10	705	24
16	Babylon	Suffolk	1,593	10,989	429	91	1,582	162
17	Hempstead 1	Nassau	1,523	5,263	1,111	97	2,063	3,677
18	Hempstead 11	Nassau	1,522	10,626	108	20	786	62
19	No. Hempstead 9	Nassau	1,498	6,535	19	32	464	38
20	Huntington 4	Suffolk	1,480	8,737	114	780	1,459	8,288
21	Hempstead 23	Nassau	1,477	5,593	4	18	1,035	16
22	Oyster Bay 22	Nassau	1,457	13,004	93	68	1,821	361
23	Hempstead 12	Nassau	1,446	2,967	196	24	807	1,356

Table 5 (Continued)

PUPIL DENSITY AND
RELATED CHARACTERISTICS
OF THE SCHOOL POPULATION
IN THE 82 MOST DENSELY SETTLED DISTRICTS
1967-68

Rank	District	County	1965-66 Survey Pupils Per Sq. Mile	Pupils	ADC Pupils	1965-66 Survey Mentally Retarded And Physically Handicapped	Estimated Under- achievers	Nonwhite Pupils
24	No. Hempstead 11	Nassau	1,394	2,856	38	13	197	30
25	Babylon 7	Suffolk	1,387	7,997	265	25	1,391	431
26	Hempstead 14	Nassau	1,374	6,094	22	17	323	17
27	Huntington 13	Suffolk	1,373	11,613	113	45	2,218	445
28	Cheektowaga 3	Erie	1,360	2,933	81	-----	522	6
29	Hempstead 21	Nassau	1,342	4,342	139	6	381	227
30	Hempstead 6	Nassau	1,322	4,864	44	16	438	24
31	Tonawanda 1	Erie	1,314	22,690	231	-----	3,313	32
32	Hempstead 19	Nassau	1,308	2,039	49	6	283	20
33	Tonawanda	Erie	1,237	5,483	122	65	1,404	32
34	Pelham	Westchester	1,235	3,163	61	-----	190	75
35	Rye 4	Westchester	1,235	4,943	551	95	1,414	1,077
36	N. Hempstead 1	Nassau	1,226	4,920	341	83	999	1,770
37	Long Beach	Nassau	1,213	6,194	894	62	1,468	621
38	Hempstead 27	Nassau	1,205	3,652	72	-----	336	57
39	Islip 12	Suffolk	1,200	19,518	1,124	313	6,246	2,630
Total	39 Dists.			1,418,227	301,520	30,363	541,623	605,871
Total	State				396,000	48,245	868,759	687,592
40	Brighton 1	Monroe	1,182	4,722	0	-----	354	32
41	Binghamton	Broome	1,174	12,350	1,097	257	1,186	346
42	Babylon 2	Suffolk	1,172	7,474	302	65	2,115	239

Table 5 (Continued)

**PUPIL DENSITY AND
RELATED CHARACTERISTICS
OF THE SCHOOL POPULATION
IN THE 82 MOST DENSELY SETTLED DISTRICTS
1967-68**

Rank	District	County	1965-66 Survey Pupils Per Sq. Mile	Pupils	ADC Pupils	1965-66 Mentally Retarded And Physically Handicapped	Estimated Under- achievers	Nonwhite Pupils
43	Cheektowaga 2	Erie	1,171	7,039	34	----	1,421	7
44	Eastchester 3	Westchester	1,160	1,463	0	----	186	3
45	Brookhaven 11	Suffolk	1,145	11,420	587	76	3,083	0
46	Schenectady	Schenectady	1,125	12,713	905	587	4,335	879
47	Watervliet	Albany	1,120	1,715	96	21	472	13
48	Greenburgh 4	Westchester	1,115	2,205	28	----	359	50
49	Niagara Falls	Niagara	1,105	19,038	2,211	340	4,617	3,016
50	Rochester	Monroe	1,077	44,003	7,376	1,398	14,477	13,065
51	Greenburgh 1	Westchester	1,069	3,297	60	11	659	444
52	New Rochelle	Westchester	1,069	12,470	634	134	2,394	2,281
53	Lackawanna	Erie	1,066	5,747	633	158	1,351	1,050
54	Hempstead 9	Nassau	1,062	7,137	891	85	1,891	1,685
55	Hempstead 2	Nassau	1,053	7,586	201	41	1,593	779
56	Islip 1	Suffolk	1,048	7,088	495	76	943	698
57	Peekskill	Westchester	1,044	3,309	355	61	821	949
58	Plattsburg	Clinton	1,041	2,982	305	64	489	46
59	Hudson	Columbia	1,033	3,520	134	63	901	357
60	Eastchester 2	Westchester	1,044	1,133	102	----	267	261
61	Utica	Oneida	999	14,745	2,343	295	2,934	1,653
62	Cheektowaga 9	Erie	994	3,027	29	----	56	0
63	Mamaroneck 1	Westchester	991	6,268	97	34	934	289
64	Poughkeepsie	Dutchess	969	5,762	544	198	1,608	1,604

Table 5 (Concluded)

**PUPIL DENSITY AND
RELATED CHARACTERISTICS
OF THE SCHOOL POPULATION
IN THE 82 MOST DENSELY SETTLED DISTRICTS
1967-68**

Rank	District	County	1965-66 Survey Pupils Per Sq. Mile	Pupils	ADC Pupils	1965-66 Survey Mentally Retarded And Physically Handicapped	Estimated Under- achievers	Nonwhite Pupils
65	Gloversville	Fulton	966	3,969	354	88	595	89
66	Troy	Rensselaer	946	6,703	928	191	2,024	813
67	Garden City	Nassau	944	5,124	1	10	415	0
68	Plainview	Nassau	927	11,567	36	-----	1,909	33
69	Amsterdam	Montgomery	913	5,448	321	116	1,438	190
70	Syracuse	Onondaga	901	30,058	6,075	1,045	8,176	5,427
71	Commack	Suffolk	900	13,174	71	31	2,305	82
72	Amityville	Suffolk	883	4,455	400	62	1,492	1,637
73	Copiague	Suffolk	882	5,937	592	73	1,728	1,324
74	White Plains	Westchester	880	8,895	442	163	1,494	1,509
75	West Islip	Suffolk	868	8,969	269	71	1,758	53
76	Rye	Westchester	867	2,938	24	-----	279	6
77	Roslyn	Nassau	848	4,679	47	9	313	157
78	No. Tonawanda	Niagara	841	9,072	216	75	1,597	42
79	Irondequoit	Monroe	840	6,189	20	-----	483	66
80	Massapequa	Nassau	840	16,924	116	86	1,811	66
81	Ogdensburg	St. Lawrence	834	3,063	307	64	744	0
82	Wyandanch	Suffolk	811	2,153	867	76	1,387	1,900
	Total 43 Districts				30,525	6,124	80,672	43,140
	State Total				396,000	48,245	868,759	687,592

Table 6
RECAPITULATION OF TABLE 5 Data
82 DISTRICTS

School Population	Number of Pupils	Percent of State Total
ADC Pupils	332,045	83.8
Mentally Retarded and Physically Handicapped	36,487	75.6
Underachievers	622,295	71.6
Nonwhite Pupils	649,011	94.3

Table 6 summarizes the characteristics of the 82 districts. From table 6 it can be seen that these districts (with full K-12 program) account for -

- 332,045 or 83.3 percent of the State total ADC pupils.
- 36,487 or 75.6 percent of the State total mentally retarded and physically handicapped pupils.
- 622,295 or 71.6 percent of the State total estimated underachievers.
- 649,011 or 94.3 percent of the State total nonwhite pupils.

Table 7 shows the same districts with the same density break presenting expenditure patterns and accompanying data which are associated with expenditure levels of the districts.

Table 8 summarizes the results of combining the two sections of Table 7 and compares median districts of this group with corresponding medians for the State.

From Table 8 it can be noted that the median district operating expenditure of the 82 districts is substantially higher than the median district for the State. The staff per 1,000 pupils is substantially less for the median district of the 82 districts. The tax rate is substantially more for the median district of the 82 districts. The full value per resident pupil of the median district of the 82 districts is substantially higher than the State median district.

Table 7

A COMPARISON OF EXPENDITURE LEVELS AND
RELATED DATA ON 82 MOST DENSE DISTRICTS
1967-68

Rank	District	County	Pupils	Oper. Exp. Per WADA Pupil	Prof. Staff Ratio	Tax Rate 1966-67	66 Rolls Full Value Per Pupil
1	New York City	New York City	1,029,200	\$ 909	60.1	\$15.31	\$43,600
2	Hempstead 5	Nassau	17,611	890	54.2	21.17	14,994
3	Hempstead 26	Nassau	5,767	938	56.7	25.21	16,590
4	Mt. Vernon	Westchester	11,848	1,001	60.6	19.01	32,718
5	Oyster Bay 18	Nassau	7,462	950	59.5	23.63	16,627
6	Hempstead 3	Nassau	17,704	806	53.2	15.58	17,512
7	Hempstead 8	Nassau	3,736	993	65.8	19.18	24,135
8	No. Hempstead 10	Nassau	4,925	1,083	60.1	20.68	40,614
9	Lynbrook	Nassau	3,674	1,093	66.4	18.79	45,369
10	Buffalo	Erie	72,204	677	50.0	11.73	28,145
11	Oyster Bay 17	Nassau	12,422	941	60.0	19.49	26,835
12	Hempstead 10	Nassau	9,102	927	56.2	19.77	25,804
13	Babylon 3	Suffolk	9,477	819	53.0	21.01	13,544
14	Yonkers	Westchester	29,797	743	54.0	12.02	43,781
15	Oyster Bay 21	Nassau	6,243	920	57.1	19.16	26,530
16	Babylon 4	Suffolk	10,989	845	54.2	18.88	15,822
17	Hempstead 1	Nassau	5,263	1,093	63.4	14.27	59,692
18	Hempstead 11	Nassau	10,626	867	51.9	17.84	29,406
19	No. Hempstead 9	Nassau	6,535	1,054	56.3	22.63	26,129
20	Huntington 4	Suffolk	8,737	972	56.6	23.25	25,875
21	Hempstead 23	Nassau	5,593	980	57.5	22.88	23,965
22	Oyster Bay 22	Nassau	13,004	933	62.5	20.58	24,156
23	Hempstead 12	Nassau	2,967	793	63.7	20.71	36,704
24	No. Hempstead	Nassau	2,856	938	52.5	19.66	30,657
25	Babylon 7	Suffolk	7,997	762	53.2	17.01	16,634
26	Hempstead 14	Nassau	6,094	1,062	58.4	21.99	40,333
27	Huntington 13	Suffolk	11,613	963	58.1	23.06	21,599
28	Cheektowaga 3	Erie	2,933	791	53.5	13.39	27,712

Table 7 (Continued)

A COMPARISON OF EXPENDITURE LEVELS AND
RELATED DATA ON 82 MOST DENSE DISTRICTS
1967-68

Rank	District	County	Pupils	Oper. Exp. Per WADA Pupil	Prof. Staff Ratio	Tax Rate 1966-67	66 Rolls Full Value Per Pupil
29	Hempstead 21	Nassau	4,382	\$1,107	61.8	\$17.95	\$49,111
30	Hempstead 6	Nassau	4,864	908	56.1	22.41	21,052
31	Tonawanda 1	Erie	32,690	694	48.6	12.92	32,259
32	Hempstead 19	Nassau	2,039	913	52.4	18.79	31,822
33	Tonawanda	Erie	5,483	760	51.6	16.56	19,124
34	Pelham	Westchester	3,163	1,058	61.3	19.14	44,979
35	Rye 4	Westchester	4,943	945	61.9	18.33	39,117
36	No. Hempstead 1	Nassau	4,920	971	58.9	19.77	35,754
37	Long Beach	Nassau	6,194	1,149	62.4	18.91	45,531
38	Hempstead 27	Nassau	3,652	1,132	69.5	22.50	36,502
39	Islip 12 Median 39 Dists. Median State	Suffolk	19,518	823 938 765	56.7 57.1 59.0	17.41 19.16 14.66	13,120 27,712 20,146*
40	Brighton 1	Monroe	4,722	1,016	55.9	17.96	39,718
41	Binghamton	Broome	12,350	756	58.1	12.73	29,277
42	Babylon 2	Suffolk	7,474	842	57.3	20.67	17,805
43	Cheektowaga 2	Erie	7,039	696	50.8	14.47	20,079
44	Eastchester 3	Westchester	1,463	1,377*	69.0	18.33	64,135
45	Brookhaven	Suffolk	11,420	818	55.6	26.10	12,378
46	Schenectady	Schenectady	12,713	909	63.7	20.42	24,856
47	Watervliet	Albany	1,715	686	50.7	10.71	23,600
48	Greenburgh 4	Westchester	2,205	1,039	62.5	22.71	31,393
49	Niagara Falls	Niagara	19,038	766	56.5	15.20	25,592
50	Rochester	Monroe	44,003	896	56.5	15.10	39,603

* Estimate

Table 7 (Continued)

A COMPARISON OF EXPENDITURE LEVELS AND
RELATED DATA ON 82 MOST DENSE DISTRICTS
1967-68

Rank	District	County	Pupils	Oper. Exp. Per WADA Pupil	Prof. Staff Ratio	Tax Rate 1966-67	66 Rolls Full Value Per Pupil
51	Greenburgh 1	Westchester	3,297	\$1,086	58.2	\$17.36	\$52,067
52	New Rochelle	Westchester	12,470	962	56.0	20.60	39,294
53	Lackawanna	Erie	5,747	965	56.7	9.92	71,197
54	Hempstead 9	Nassau	7,137	884	56.6	16.99	38,231
55	Hempstead 2	Nassau	7,586	973	62.6	19.26	39,487
56	Islip 1	Suffolk	7,088	937	55.0	19.24	31,084
57	Peekskill	Westchester	3,309	911	58.9	21.93	24,488
58	Plattsburg	Clinton	2,982	780	58.6	15.53	27,308
59	Hudson	Columbia	3,520	751	52.8	11.12	22,713
60	Eastchester 2	Westchester	1,133	1,228	62.6	17.03	54,656
61	Utica	Oneida	14,745	728	53.5	11.40	24,334
62	Cheektowaga 9	Erie	3,027	664	50.5	12.47	26,409
63	Mamaroneck 1	Westchester	6,268	1,108	59.6	17.74	26,452
64	Poughkeepsie	Dutchess	5,762	841	53.9	17.50	31,132
65	Gloversville	Fulton	3,969	767	58.2	14.93	15,931
66	Troy	Rensselaer	6,703	758	55.0	15.90	20,490
67	Garden City	Nassau	5,124	1,158	56.4	15.54	62,666
68	Plainview	Nassau	11,567	1,008	60.6	26.43	22,527
69	Amsterdam	Montgomery	5,448	865	67.1	16.14	15,283
70	Syracuse	Onondaga	30,058	767	53.3	11.59	33,069
71	Commack	Suffolk	13,174	853	54.6	21.84	18,751
72	Amityville	Suffolk	4,455	904	57.0	18.10	27,336
73	Copliague	Suffolk	5,937	830	53.0	18.54	18,924
74	White Plains	Westchester	8,895	1,167	63.1	16.58	57,651
75	West Islip	Suffolk	8,969	790	52.0	17.72	17,045
76	Rye	Westchester	2,938	1,019	67.0	17.07	50,342
77	Roslyn	Nassau	4,679	1,378	69.4	24.60	44,029

Table 7 (Concluded)

A COMPARISON OF EXPENDITURE LEVELS AND
RELATED DATA ON 82 MOST DENSE DISTRICTS
1967-68

Rate	District	County	Pupils	Oper. Exp. Per WADA Pupil	Prof. Staff Ratio	Tax Rate 1966-67	66 Rolls Full Value Per Pupil
78	No. Tonawanda	Niagara	9,072	782	52.9	17.38	18,479
79	Irondequoit	Monroe	6,189	869	55.4	15.54	31,691
80	Massapequa	Nassau	16,924	803	53.7	17.43	21,528
81	Ogdenburg	St. Lawrence	3,063	628	53.4	15.80	14,275
82	Wyandanch	Suffolk	2,153	943*	70.5	22.44	16,117
	Median 43 Districts			865	56.5	17.36	27,308
	State Median			765	59.0	14.66	20,146*

* Estimate

Table 8

RECAPITULATION OF TABLE 7 DATA
(A COMPARISON OF MEDIAN DATA)
82 DISTRICTS

	<u>82 Districts</u>	<u>Total State</u>
Operating Expense Per WADA	\$ 909	\$ 765 Prelim.
Prof. Staff Per 1,000 Pupils	56.7	59.0
Tax Rate Per \$1,000 Full Value	\$ 18.33	\$ 14.66
FV/RWADA	\$27,524	\$ 20,146

The 82 districts shown in the various tables are from the following counties:

New York City	
Nassau	30 districts
Suffolk	14 districts
Westchester	13 districts
Erie	7 districts
Monroe	3 districts
Niagara	2 districts

Albany, Broome, Clinton, Columbia, Dutchess,
Fulton, Montgomery, Oneida, Onondaga, Rensselaer,
St. Lawrence, and Schenectady

All of the districts are from suburban counties except for eight cities from rural counties.

Table 9

**CITIES LOSING
TAX LIMIT REFERENDA
1967 AND 1968**

City	Year of Referenda	Proposed Referenda Increase
Binghamton	1968	1.25% to 1.50%
Canandaigua	1968	1.25% to 1.50%
Cohoes	1968	1.50% to 1.75%
Corning	1968	1.50% to 1.75%
Middletown	1967	1.25% to 1.50%
Schenectady	1968	1.50% to 1.75%
Troy	1968	1.50% to 1.75%

**CONSTITUTIONAL TAX LIMITATIONS
REFERENDUM SURVEY
1952-53 TO 1967-68**

Number of Districts Tried Referenda	Times Tried	Results	
		Yes	No
14	26	4	22

DISTRICTS AND NUMBER OF REFERENDA

Number of Districts	Tried	Number of Referenda	Total
1	Tried	4	44
3	Tried	3	99
3	Tried	2	6
7	Tried	1	7
Total 14			26

URBAN EDUCATION

The major problems of education in New York State today lie in our cities.

The proportion of nonwhite population in the cities, and especially in the public schools of the cities, is increasing. Large numbers of children from foreign lands and from other sections of the country, often from depressed areas, require special attention and extra teaching services.

Cities have disproportionately high concentration of lower income population, both white and nonwhite. Isolated education of persons in this group yields inferior results. To have equal opportunity, they must be educated in schools with predominately middle-class populations. In some city school districts, the proportion of middle-class pupils in the public schools has declined to the extent that achieving desirable pupil assignment within the city is extremely difficult, if not impossible.

The loss of economic strength of the cities, heavy demands for safety, welfare, and other city services place a heavy burden on the tax dollar.

The complexity of these factors and the magnitude of the problem induced the Regents to direct the Education Department last year to develop a strategy for the revitalization of urban school systems. After many surveys, conferences, and tests of various proposals, the Department, with the coordination and help of the Joint Legislative Committee to Revise and Simplify the Education Law, conceived a program for the Legislature.

Through this program money would be channeled to those urban areas of the State with the greatest concentration of pupils educationally

disadvantaged due to conditions of poverty. The funds would be distributed by a formula based primarily on the number of pupils who show below minimum reading competence on a State administered examination. On this basis, 27 districts became eligible and applied for aid in the school year 1968-69.

Table 10 contains a list of the eligible and participating districts and the allocation of funds to each district. These allocations range in size from \$10,340 for Jamestown to \$44.5 million for New York City.

Table 11 shows the expenditure levels of the districts and some of the factors associated with expenditure level. The per pupil expenditure ranges from \$662 in Fulton to \$1,167 in White Plains. The median district operating expenditure is \$830. The comparable median for the State as a whole is \$765.

The last available tax rates for 1966-67 range from \$9.92 in Lackawanna to \$21.48 in Connetquot. The median district tax rate is \$15.10. The comparable median for the State is \$14.66.

The full value of taxable real property per pupil ranges from \$16,826 in Rome to \$71,197 in Lackawanna. The median district full value is \$28,145. The comparable median for the State is \$19,168.

The professional staff per 1,000 pupils ranges from 50.0 in Buffalo to 63.7 in Schenectady. The median district professional staff per 1,000 pupils is 55.0. The comparable median for the State is 59.0.

Table 12 contains data on the number of pupils, the number of ADC pupils, the estimated number of underachievers, the number of nonwhite pupils, and the public school pupil density in each district. A comparison of the totals for the districts with the totals for the State, expressed as a percentage, indicates that these districts contain:

- 43.1% of the pupils
- 82.3% of the ADC pupils
- 64.9% of the estimated underachievers
- 90.8% of the nonwhite pupils

It is interesting to note that New York City alone accounts for

- 31.4% of the pupils
- 69.1% of the ADC pupils
- 51.3% of the estimated underachievers
- 78.9% of the estimated nonwhite pupils

The six largest cities account for

- 37.2% of the pupils
- 77.5% of the ADC pupils
- 58.6% of the estimated underachievers
- 86.6% of the estimated nonwhite pupils

Table 10

URBAN EDUCATION AID
ELIGIBLE DISTRICTS AND STATE AID ALLOCATION
FOR SCHOOL YEAR 1968-69

School District	Allocation
1. New York City	\$44,491,790
2. Buffalo	2,612,460
3. Rochester	1,030,960
4. Yonkers	710,090
5. Syracuse	682,340
6. Niagara Falls	352,480
7. Schenectady	312,640
8. Albany	275,700
9. Mt. Vernon	224,060
10. Utica	175,610
11. Elmira	141,280
12. Newburgh	136,060
13. New Rochelle	122,810
14. Hempstead	117,010
15. Rome	103,860
16. Troy	79,000
17. White Plains	78,810
18. Poughkeepsie	64,880
19. Middletown	47,860
20. Copiague	47,380
21. Watertown	42,740
22. Port Chester	37,610
23. Lackawanna	35,580
24. Connetquot	26,300
25. Binghamton	22,720
26. Fulton	17,500
27. Jamestown	10,340
Total	\$52,000,000

Table 11

SIZE OF DISTRICT AND SELECTED
PER PUPIL CHARACTERISTICS
URBAN AID DISTRICTS, 1967-68

School District	Pupils	Operating Expense	Full Value Tax Rate*	Full Value	Prof. Staff Ratio
New York City	1,029,200	\$ 908	\$15.31	\$43,600	60.1
Buffalo	72,204	677	11.73	28,145	50.0
Rochester	44,003	896	15.10	39,603	56.5
Yonkers	29,797	743	12.02	43,781	54.0
Syracuse	30,058	767	11.59	33,069	53.3
Niagara Falls	19,038	766	15.20	25,512	56.5
Schenectady	12,712	909	20.42	24,856	63.7
Albany	12,524	765	11.42	45,886	62.4
Mt. Vernon	11,848	1,001	19.01	32,718	60.6
Utica	14,745	728	11.40	24,334	53.5
Elmira	13,979	734	13.24	19,091	54.8
Newburgh	11,553	876	15.27	22,563	54.1
New Rochelle	12,470	962	20.00	39,294	56.0
Hempstead	5,263	1,093	14.27	59,692	63.4
Rome	11,520	677	11.24	16,826	54.1
Troy	6,703	758	15.90	20,490	55.0
White Plains	8,895	1,167	16.58	57,651	63.1
Poughkeepsie	5,762	841	17.50	31,132	53.9
Middletown	5,307	794	16.20	23,072	53.2
Copiague	5,937	830	18.54	18,924	53.0
Watertown	6,992	783	14.40	19,277	55.8
Port Chester	4,939	945	18.33	29,117	61.9
Lackawanna	5,747	965	9.92	71,197	56.7
Connetquot	5,151	986	21.48	23,174	54.4
Binghamton	12,350	756	12.73	29,277	58.1
Fulton	4,737	662	11.87	19,311	52.9
Jamestown	8,757	905	14.49	20,413	53.0

*Tax Rates are for 1966-67.

Table 12
 SIZE OF DISTRICT, ADC PUPILS, UNDERACHIEVERS,
 NONWHITE PUPILS, AND PUPIL DENSITY IN 27 URBAN AID DISTRICTS
 1967-68

School District (Popular) Name	Pupils	ADC Pupils	Estimated Under-achievers	Estimated Nonwhite Pupils	1965-66 Pupils Per Sq. Mile
New York City	1,029,200	273,540	445,936	542,264	3,376
Buffalo	72,204	14,386	28,160	26,776	1,887
Rochester	44,003	7,376	14,477	13,065	1,077
Yonkers	29,797	3,547	7,986	4,283	1,625
Syracuse	30,058	6,075	8,176	5,427	901
Niagara Falls	19,038	2,211	4,619	3,016	1,105
Schenectady	12,713	905	4,335	879	1,125
Albany	12,524	1,998	3,983	3,689	688
Mt. Vernon	11,848	1,891	3,637	5,591	2,923
Utica	14,745	2,343	2,934	1,653	999
Elmira	13,979	821	2,614	791	127
Newburgh	11,553	1,567	2,738	2,695	336
New Rochelle	12,470	634	2,394	2,281	1,069
Hempstead	5,263	1,111	2,063	3,677	1,523
Rome	11,520	763	2,258	498	121
Troy	6,703	928	2,024	813	946
White Plains	8,895	442	1,494	1,509	880
Poughkeepsie	5,762	544	1,608	1,604	969
Middletown	5,307	480	1,380	424	205
Copiague	5,937	592	1,728	1,324	882
Watertown	6,992	405	1,133	49	798
Port Chester	4,939	551	1,413	6	1,235
Lackawanna	5,747	633	1,351	1,050	1,066
Connetquot	5,151	348	1,350	45	244
Binghamton	12,350	1,097	1,186	359	1,124
Fulton	4,737	354	1,293	5	70
Jamestown	8,757	531	1,340	320	474
Total	1,412,492-43.1%	326,073-82.3%	563,610-64.9%	624,048-90.8%	
TOTAL STATE	3,273,000	396,000	868,795	687,592	

PART D

PROBLEMS OF MEASURING ABILITY AND NEEDS

VI

THE DETERMINANTS OF EDUCATIONAL EXPENDITURES IN NEW YORK STATE

Throughout the State, expenditures for education are compounded of the specific decisions of more than 730 individual school districts which differ widely in many important characteristics. It would appear that differences in such characteristics would be associated with differences in the level of expenditures among these districts. During 1966-67 school year, per pupil operating expenditures among school districts ranged from \$360 to \$1,500. Exclusive of the six largest cities, these expenditures average \$735. The distribution of these expenditures is shown in Table 13.

Such wide differences in expenditures have great implications for the quality of education available to pupils in different parts of the State. It is a well documented fact that adequate finance is necessary for good quality education. While high expenditures do not guarantee good quality education it is almost impossible to guarantee good quality education with insufficient funds. To the extent, therefore, that differential spending among the various districts is indicative of differential quality education, it becomes imperative to isolate those factors which are associated with differences in expenditure patterns.

Another important implication of the wide differences in expenditure levels is the effectiveness of the existing State financial plan of school support. The existing State aid formulas in New York State stress the so-called "equalization principle." Under this principle an attempt

is made to insure equal and adequate quality educational opportunity to pupils throughout the State.

The main formula, however, operates primarily to neutralize the differences in local property tax resources. Other important and pervasive factors, however, may generate differences in expenditure levels among the various school districts.

Table 13

DISTRIBUTION OF PER PUPIL OPERATING EXPENDITURES
NEW YORK STATE SCHOOL DISTRICTS
1966-67

Operating Expenditures	Percent of Districts	Cumulative Percent
\$ 0 - 360	0	0
361 - 630	10	10
631 - 651	15	25
652 - 703	25	50
704 - 779	25	75
780 - 872	15	90
873 -1498	10	100

Purposes of the Study

The main purpose of the study, therefore, is to isolate the major factors which explain (or describe) variations in expenditures among the school districts. A second objective of the study is to determine whether the effects of such factors are stable over time. A third objective is to discover the possibility of alternative methods of State subventions which can neutralize the effects of these factors.

28

THE EXPENDITURE MODEL

Previous Studies of Expenditure Variations

A 1966 study^{3/} analyzed the effects of certain factors on expenditure levels. The main conclusion was that two factors--(a) local resources and (b) location inside or outside of the New York City Metropolitan Area--are significant in explaining variations in expenditure levels among school districts. The study also suggested that the pattern of expenditures in small school districts, as well as in the six largest cities, differs somewhat from other districts in the State.

A 1967 study^{4/} confirmed the previous findings but suggested the possible operation of other important factors. This study concluded that the most important characteristic describing variations in expenditures is the level of local fiscal resources available to the districts; second in importance to the level of local resources are (a) location inside or outside of the New York City Metropolitan Area, (b) the level of local tax rate for school purposes, and (c) the professional staff-pupil ratio. The method used in that study however did not give the numerical impact of the two latter factors. This study attempts to quantify the specific impact of each of these four factors.

^{3/}Hogan, Lloyd L., *Toward a System of Classification of School Districts in New York State*, The University of the State of New York, The State Education Department, Albany, January 1966.

^{4/}Hogan, Lloyd L. and Lindop, Ellen F., "Financial Characteristics of High Expenditure Districts in New York State" in *The Challenge of Change in School Finance*, National Education Association, Washington, D. C. 1967.

Hypothesis to be Tested

Based on the conclusions of previous studies this study postulates the hypothesis that

variations in the level of per pupil expenditures can be explained by variations in four factors--(a) local property tax base per pupil, (b) local tax rate for school purposes, (c) size-location index, (d) professional staff-pupil ratio.

In practically all studies, the local property tax base has been found to be the most important determinant of expenditure levels. This has been true despite the attempt by the existing State aid formulas to neutralize much of its effects. The hypothesis postulated above asserts that this factor in conjunction with the other three, is still significant in explaining expenditure differences. In 1965-66 the per pupil property tax base ranged from \$5,000 to over \$200,000. Exclusive of the six largest cities the average was approximately \$23,000. This factor, of course, is not subject to local discretion.

The local tax rate for school purposes is measured by the ratio of local school tax levies to full value of taxable real property. Nonproperty taxes levied for school purposes are also included in the measure. This factor, no doubt, is subject in large part to the control of the local school board. Given the level of State aid, Federal aid, and other nontax revenues, the local board's decision to set the tax rate is simultaneously a decision about the level of expenditures, and consequently, the type of educational program administered to its pupils.

During 1966-67, local school tax rates varied between 0.5 percent and 3 percent, averaging 1.6 percent.

The size-location index is a device by which we measure three types of districts whose expenditure patterns appear to be different. Districts outside of the New York City Metropolitan Area appear to spend a significantly smaller amount than districts located inside of the New York City Metropolitan Area. This may be a measure of different economic market conditions. It has been found that small districts tend to have expenditure levels somewhat in between the two groups mentioned above. For purposes of this study, this factor identifies districts located in the New York City Metropolitan Area and those located outside the New York City Metropolitan Area. This factor, no doubt, is completely beyond the control of local decision-making agents.

The professional staff-pupil ratio measures the largest single item in the per pupil operating expenditure budget. This factor is also highly variable. For example in 1966-67, the professional staff per 1,000 pupils ranged from 38 to 97. Exclusive of the six largest cities the average was 57. Included in this measure are classroom teachers, administrators, and other certified supporting personnel.

This factor is a strategic one in decisions about the types of educational programs given to pupils. Indeed, it is a partial indicator of the quality of education. It would be a better indicator if it could be subjected to differential weights based on different qualitative characteristics of the professional staff component. In any case, it is subject to local discretion.

The data used in the study are based on a sample of 50 school districts, which are representative of the major school districts (exclusive of the six largest cities) in many important financial characteristics^{5/}. Once the basic parameters are estimated, the study applies them to all the major school districts in the State which maintain a full K-12 program.

The method used in the study is the statistical technique commonly referred to as a multiple regression analysis. This technique isolates the specific numerical effect of each of a number of independent factors which jointly explain (or describe) variations in some one dependent variable.

The dependent variable (the one whose variation is to be explained) is the per pupil operating expenditures. This is a measure which is defined by the statutes for purposes of State aid distribution. In most cases, however, it measures the direct educational expenditures for pupils attending school in the district from kindergarten through grade 12. It includes current expenditures exclusive of such auxiliary and highly variable components as school bus transportation, debt service on school buildings, interdistrict expenditures, and Federal revenues.

It may be noted that the measure of pupils used to deflate the expenditures is the number of pupils in weighted average daily attendance (kindergarten attendance weighted by 1/2, first through sixth grade attendance weighted by one, and seventh through 12th grade attendance weighted by 1 1/4).

^{5/} Bentley, Fred H, "An Experimental sample of the Major School Districts in New York State", Unpublished Discussion Paper, May, 1966

Formal Statement of the Model

A formal statement of the expenditure model is given by

$$Y = a^1 X^1 + a^2 X^2 + a^3 X^3 + a^4 X^4 + a^5 X^5 + \text{Error}$$

where the "error" term is assumed to be distributed
i) normally, ii) with zero mean, iii) with finite
variance, and iv) independently of each X_i

The fifth factor included in the model is done for statistical completeness. It is merely the multiplicative inverse of the number of pupils. Its role is to account for some of the residual effects (on gross expenditures) of pupils not completely eliminated by the use of per pupil data. Justification for its inclusion is a technical matter which is beyond the scope of this paper.

These assumptions describe a standard linear normal regression setup which insures that maximum-likelihood estimates of the parameters are provided by ordinary least squares techniques. Some of the limitations inherent in this type of model, however, should be noted.

Limitations of the Model

The postulate of a linear relationship connecting the dependent variable with the independent variables is quite heroic. Very few processes can be accurately described by such a model. At best, it is an approximation to reality and is assumed merely for its simplicity and the ease of (arithmetic) computations it generates.

The assumption of a normal distribution of the error term does not present great difficulties. Indeed, such a distribution can be used to approximate a wide class of other distributions. Making use of this assumption, however, provides for computational simplicity.

The assumption that the error is distributed independently of the independent variables is equivalent to the statement that the line of causation (antecedence) runs in one direction only--from the independent variables to expenditures. This may be true of the property tax base and the size--location index. Staff-ratio or tax rate, however, would appear to be mutually dependent on expenditures.

For example, if the decision by local boards is primarily an educational program decision, then a given program determines an expenditure level. But given the expenditures (under existing systems of State school financial support), a corresponding local tax rate is implied. Under these circumstances the level of expenditures may be said to "cause" the level of tax rate. Similar possibilities hold with respect to the interaction between staff-ratio and expenditures.

The problem here is obviously one of mutual interdependence, suggesting that the appropriate model should be a simultaneous equation model consisting of at least three equations. The one-equation model postulated here is thus an initial probe of reality, which gives a broad description of expenditure variations rather than a cause and effect relationship.

The Model as Testable Hypotheses

The major hypothesis underlying the model is that the four factors, taken together, are significant in explaining variations in per pupil expenditures among the major school districts.

A secondary set of hypotheses postulates that the specific numerical effect of any given factor on expenditures is significantly different from zero, when the effects of all other factors are held constant.

ESTIMATE OF THE EXPENDITURE MODEL FROM SAMPLE DATA

General Properties of the Estimated Model

Table 14 shows the estimated regression coefficients as well as other related measures.

The chief result of the model estimates is that the five factors jointly account for 86 percent of the variation in operating expenditures among the sample districts.

The unexplained 14 percent variation is still of practical importance. It implies a standard error of estimating operating expenditures from this model of \$51 per pupil. In the case of a school district like New York City, for example, this could mean an error of estimating the school budget by as much as \$51 million. Similarly, in a district like Buffalo, this could imply an error in estimating the school budget by as much as \$3.5 million.

Undoubtedly, some of the unexplained variation might be the result of errors in measuring operating expenditures, or the existence of highly peculiar local circumstances, or simply due to random and unpredictable behavior of those responsible for the construction of school budgets.

Further research is needed, however, to test for the systematic operation of one or more additional factors not now included in this model, since this is probably the main source of the unexplained variation. A factor, such as the quality of the staff, readily suggests itself as a candidate for inclusion in the model.

Table 14

REGRESSION EQUATION
RELATING PER PUPIL EXPENDITURES
TO FIVE EXPLANATORY VARIABLES
NEW YORK STATE, 1966-67

FACTOR		Estimated Regression Coefficient	Standard Error of Estimated Coefficient	Student-T
Name	Symbol			
1. Property Tax Base Per Pupil	X ₁	3.76	0.68	5.53
2. Size-Location Index	X ₂	49.59	11.76	4.22
3. Professional Staff-Pupil Ratio	X ₃	7.19	1.87	3.85
4. Local School Tax Rate	X ₄	8.51	2.72	3.12
5. One-Pupil Ratio	X ₅	-30,372	8,300	-3.66
6. Constant Term	1	148.31	51	-----
Index of Determination	R	0.86	-----	-----
Standard Error of the Regression	σ	51	-----	-----
Snedecor Ratio	F	53	-----	-----
Critical Value of F	F (44,5) .01	9	-----	-----

Table 15 shows the actual and estimated expenditures for the sample of 50 districts.

The Specific Impact of the Factors in the Model

One of the questions raised by this study is whether each of the individual factors is significant in explaining expenditure variations among school districts. A related question has to do with the order of importance of the factors.

Table 15

RELATIONSHIP BETWEEN ACTUAL AND ESTIMATED* EXPENDITURES
FOR A SAMPLE OF SCHOOL DISTRICTS
NEW YORK STATE, 1966-67

School District	Per Pupil Expenditures			
	Estimated	Actual	Error	Rating
Green Island	\$821	\$837	- 16	- .31
Alfred 1	588	626	- 38	- .75
Bolivar 1	663	636	27	- .53
Dickinson 1	723	779	- 56	-1.10
Vestal	703	691	12	.23
Olean	684	715	- 31	- .61
Salamanca	638	706	- 68	-1.33
Clymer 1	644	621	23	.46
Dunkirk	741	632	109	2.13
Hancock 6	600	654	- 54	-1.06
Kenmore	673	620	53	1.04
Moriah 1	692	690	2	.03
Saranac Lake	753	812	- 59	-1.16
Broadalbin 1	597	562	35	.69
Stratford 1	745	776	- 31	- .62

*Estimates were made from the regression equation described in Table 14

Table 15 (Concluded)

RELATIONSHIP BETWEEN ACTUAL AND ESTIMATED* EXPENDITURES
FOR A SAMPLE OF SCHOOL DISTRICTS
NEW YORK STATE, 1966-67

School District	Per Pupil Expenditures			
	Estimated	Actual	Error	Rating
Catskill	\$ 653	\$ 664	\$- 11	- .22
Windham 1	687	660	27	.53
Ilion	660	652	8	.02
Avon 1	631	619	12	.24
Lima 9	768	755	13	.26
Brookfield 12	835	765	70	1.37
DeRuyter 1	690	724	- 34	- .66
Pittsford	768	737	49	.97
Levittown	818	819	- 1	- .03
Roosevelt	892	891	1	.03
Cyster Bay	1,038	1,112	- 74	-1.44
Niagara Falls	726	704	22	.43
Bridgewater 1	580	660	- 80	1.56
Camden 1	606	615	- 9	.19
Rome	648	602	46	.91
Liverpool	782	698	84	1.65
Kendall 7	603	658	- 55	1.08
Albion 2	695	718	- 23	.46
Springfield 1	626	630	- 4	- .07
Schaghticoke 1	608	583	23	.45
Gouverneur	752	752	- 0	- .00
Morristown 1	679	654	25	.50
Bath 1	583	577	6	.12
Babylon 1	887	847	40	- .79
Huntington 1	875	832	43	.85
Huntington	974	1,006	- 32	- .63
Groton 1	695	725	- 30	- .58
Marlboro 1	819	890	- 71	-1.39
Bolton 1	779	706	73	1.43
Granville 1	598	614	- 16	- .31
Mt. Vernon	923	814	109	2.14
Ossining	927	909	18	.36
Pelham	923	1,000	- 77	-1.51
White Plains	999	1,095	- 96	-1.88
Middlesex 2	729	697	32	.63

*Estimates were made from the regression equation described in Table 14

The conclusion drawn from the estimated model is that each of the five factors is statistically significant. The critical value of the Gossett student-T ratio at the one percent level of significance is 2.7. The last column of Table 14 shows that the calculated value of this ratio for each of the parameters varies in absolute value from 3.1 to 5.33.

The magnitude of the Gossett student-T ratio gives some indication of the relative importance of each of the factors. From Table 14 this would suggest that the property tax base is the most significant; the size-location index is the second most important, although the remaining variables are not far behind.

TEMPORAL STABILITY OF THE MODEL

The usefulness of the model type developed in this study depends on its ability to predict the expenditure level of any given school district from estimates of the values of the independent variables. Since the model is based on cross-sectional data for a given year, its prediction of future expenditures will require that the numerical values of the parameters remain constant over time (or at least vary according to some systematic pattern) and that the same independent variables are operative from year to year. This is what is meant by the stability of the model.

Four Estimates of the Model - 1964-67

In addition to the estimates for 1966-67, the same model was estimated from sample data for each of the years, 1963-64, 1964-65, and 1965-66. These estimates are shown in Table 16.

Over the 4 years, the same five independent variables jointly account for 82 percent, 84 percent, and 86 percent respectively of the variation in per pupil operating expenditures; the corresponding implied standard errors are \$40, \$50, \$49, and \$51. Furthermore all four regressions are significant at the one percent level based on the Snedecor-F test.

The direction of influence of each on per pupil operating expenditures is the same for each year studied. In particular, the property tax base, size location index, professional staff-pupil ratio, and local tax rate are all positive in their impact on operating expenditures.

Table 16

REGRESSION EQUATIONS RELATING
PER PUPIL OPERATING EXPENDITURES
TO FIVE EXPLANATORY FACTORS
NEW YORK STATE SCHOOL DISTRICTS
1963-64 TO 1966-67

Factor	Name	Symbol	School Year			Standard Error of 1966-67 Estimates	
			1963-64	1964-65	1965-66		1966-67
			Regression Coefficient				
1.	Property Tax Base Per Pupil	X ₁	3.60	3.21	4.63	3.76	0.68
2.	Size-Location Index	X ₂	42.51	45.65	40.61	49.59	11.76
3.	Professional Staff-Pupil Ratio	X ₃	7.19	8.14	4.55	7.19	1.87
4.	Local School Tax Rate	X ₄	4.20*	4.59*	8.04	8.15	2.72
5.	One-Pupil Ratio	X ₅	-23,556	-30,087	-14,635*	-20,372	8,300
6.	Constant Term	1	109.29	94.88	104.63	148.30	51
Index of Determination		R ²	0.86	0.82	0.84	0.86	-----
Standard Error		σ	40	50	49	51	-----

* Not significant at the 5 percent level of significance

PART E

SPECIAL PROBLEMS IN SCHOOL FINANCE

VII

THE REGIONAL SUPPORT OF EDUCATION
IN THE ALBANY CAPITAL AREA

This study examines the regional spending and resources for the support of public elementary and secondary education in the Capital District area. The area consists of four counties -- Albany, Rensselaer, Saratoga, and Schenectady. In its configuration of central cities and surrounding suburban and rural sections, it resembles in some degree several other metropolitan areas of the State.

The purpose of the study is to delineate the variations in taxation, State aid, and spending, and to examine how a regional approach to taxation might affect the distribution of taxation and State aid among the various districts. Spending is partly subject to local decisions, and changes in revenue patterns would necessarily result in changes in spending.

The study is based on the premise that both taxation and levels of expenditure are greatly influenced by the present organization of the area into 42 school districts. It is also based on the premise that a regional property tax or some other form of regional tax would ameliorate the undesirable extremes of taxation and spending. No assessment is made or implied of the desirability of such a change. It is purely an investigation of the fiscal effects of such a change.

No assessment of the services provided or the need for services has been made. The study makes no assumptions as to what services ought to be performed.

Present Situation

Table 17 shows the distribution of revenues, tax rates, and wealth, for all districts in the area.

Table 17

DISTRIBUTION OF WEALTH, TAX RATE, AND REVENUES
AMONG 42 CAPITAL AREA DISTRICTS, 1966-67

Selected Financial Characteristics	Lowest	Percentile					Highest
		10	25	50	75	90	
Full Value Per Pupil	\$10,557	\$12,819	\$13,878	\$17,750	\$24,206	\$37,401	\$154,699
Tax Rate Per M Full Value	6.08	11.22	31.19	15.03	16.91	20.03	21.53
Local Tax Levy Per Pupil	146	166	204	290	378	591	941
State Aid Per Pupil	34	399	445	572	652	692	732
Federal Aid Per Pupil	4	12	22	33	52	61	100

At the extreme, one district has a tax base 15 times as large as the community with the smallest tax base. Ignoring that extreme, the district at the 90th percentile has a tax base more than three times that of the district with the smallest tax base. Compared to the statewide average wealth of \$31,400, districts in this area are not wealthy. Only six have valuation more than the statewide average. Compared to the upstate average wealth of \$25,800, the average of \$23,600 for the area is lower, but not greatly so.

Variations in revenue are also extreme. The variation in local tax levy per pupil of over 6 to 1, looks much like the variation in the tax base. Ignoring the district of extreme valuation, the tax levy still shows a variation of more than 4 to 1. Only as the State supplies funds to overcome such discrepancies, or regional variations in valuation are reduced, can educational opportunity be more nearly equalized.

Tax rates, while not showing such an extreme variation, still show a variation of more than 3 to 1 between the highest and the lowest. The high rate is in a low valuation district, however, and the low rate is in the highest valuation district.

The major State aids, consisting of operating and building aid, are distributed on an equalization principle; that is, they are distributed inversely to wealth as measured by property valuation per pupil. It is therefore not surprising to find that one district gets \$24 total State aid per pupil while another district receives \$732 per pupil. A more normal range is provided by the 10th percentile figure (\$339 per pupil) and the 90th percentile (\$692 per pupil).

Federal aid is much less important because it is relatively small in amount. The range is from \$4 to \$100 per pupil. Federal aid is based on a wide variety of factors. The major one, however, is the number of disadvantaged, which tend to be concentrated in the largest communities.

Table 18 presents the distribution of pupil expenditures among the 42 districts. Total expenditures range from \$1,143 per pupil in the wealthiest district down to \$632 per pupil in a middle wealth district. The highest expenditure is almost double the lowest. The top expenditure

Table 18

DISTRIBUTION OF PER PUPIL EXPENDITURES
AMONG 42 CAPITAL AREA DISTRICTS, 1966-67

Types of Per Pupil Expenditures	Lowest	Percentile					Highest
		10	25	50	75	90	
Total	\$632	\$747	\$816	\$876	\$946	\$1,032	\$1,143
Operating	480	592	642	698	736	840	873
Debt Service	0	33	66	99	120	142	171
Transportation	3	6	33	52	68	76	99
Other	9	24	35	42	60	85	182

district spends 30.47 percent above the median district; the lowest expenditure district, 27.86 percent below the median. Three of the five districts spending above \$1,000 per pupil are among the six districts above \$30,000 per pupil in real property valuation. The high per pupil operating expense is \$873 as compared to a low of \$480.

Two districts have no debt service while 20 exceed \$100 per pupil.

Six districts have negligible expenses for transportation, while 23 exceed a cost of \$50 per pupil. Since the State covers 90 percent of approved costs of transportation, variations in this figure do not represent a heavy local burden except in the most unusual circumstances. Other expenses are for such things as tuition, payments to Boards of Cooperative Educational Services, interfund transfers to school lunch, capital expenditure funds, etc. Three districts have

expenditures of over \$90 per pupil. Each is a K-8 district with tuition payments for its senior high school students. The highest amount (\$182) is more than 20 times the lowest amount (\$9) in this category. Half of the districts are spending less than \$43 while the top 25 percent are spending \$60 or more.

Regional Support of Education

The present system of combined State and local financing of education has been shown to cause widely varying expenditure and revenue patterns. "Tax Islands" with high concentrations of wealth and low rates of taxation are a manifestation of the uneven distribution of wealth throughout the area. With growing urbanization, the already great differences in both taxation and support are likely to be accentuated. That they are not greater is due to a strong system of State support of education in New York State.

Increasingly, there is discussion of a State property tax or a regional property tax for education to eliminate some of the existing inequities. The approaches which follow indicate some fiscal effects of two differing levels of regional financial support.

The first would be a regional tax to cover the cost of debt service and transportation. Under this plan all debt service and transportation expenses would be pooled regionally. The amount of building aid and transportation aid payable would be deducted from the moneys needed. Such a plan strongly implies regional planning for school building construction and school bus transportation.

Table 19 shows the fiscal results of this plan if it had been in effect in the 1966-67 school year. The first row shows the distribution of the present combined tax rate for transportation and debt service. The second row shows the new area-wide tax rate for transportation and debt service under the proposed plan.

Table 19

DISTRIBUTION OF TAX RATE FOR DEBT SERVICE AND TRANSPORTATION
UNDER PRESENT SYSTEM PLAN A
AMONG 42 CAPITAL AREA DISTRICTS, 1966-67

Tax Rate	Lowest	Percentile					Highest
		10	25	50	75	90	
Present Tax Rate Per \$1,000 for Debt Service and Trans.	.04	.22	1.64	2.26	2.90	3.65	4.40
Proposed Tax Rate on \$1,000 for Debt Service and Trans.	1.97	1.97	1.97	1.97	1.97	1.97	1.97

The change in tax rate per thousand ranges from a decrease of \$2.03 per thousand to an increase of \$1.94 per thousand, with a median change being a decrease of \$.29 per thousand. Eighteen districts would be required to pay more than they do now and 24 to pay less. Six of the highest value districts, none of the average value districts, and only three of the low value districts would be required to raise their taxes.

A second approach would be the levying of an area-wide tax, and the redistribution of the revenue from such a tax, on an equal per pupil basis. This involves a much more substantial redistribution of local resources than Plan A. Of course, the level of redistribution depends on the level of the regional tax levied.

Under this plan it is assumed that each district would levy a tax of \$11 per thousand dollars valuation. The rationale for this figure is simple. It represents the implied tax rate for the local share under the existing formula. That is, if each district were spending at the ceiling (\$660 in 1966-67), the local share would be \$10.72. (\$11). This plan represents substantial regional taxation but allows leeway for local taxation. The revenue from this tax would be distributed back to the districts at a rate of \$250.92 per pupil with two restrictions.

The first restriction is that no district would receive more revenue than had been raised at the local level the year before. If any district would receive more than its local levy, the additional money would be redistributed to all other districts eligible for additional revenue.

The second restriction is that each district would receive the amount of State aid that it would normally be entitled to if its aid ratio were equal to or higher than that of the entire area. Any district with aid ratio lower than the area-wide aid ratio would receive additional operating aid based on the area aid ratio. The area-wide ratio for 1966-67 was 62.5 percent.

The rationale for such an approach is consistent with present State aid practices. Every district is levying a tax equal to that required for full sharing in State aid. Funds from this tax are being distributed as if the entire area were one district. Therefore, every district in the entire region is entitled to aid at the area equalization rate which is computed by treating the entire four-county area as one district. No district having a higher aid ratio, however, would suffer a cut in aid. This yields an additional \$8,278,858

in aid for 1966-67. Of this amount \$4,730,000 is due to treating the area as one district for aid purposes^{6/}. The remainder is due to the "save harmless" provision.

Table 20 shows the results of the levy of the \$11.00 area tax and the redistribution of the funds raised.

^{6/} One Note of Caution: Various areas of the State will fare differently under such a regional plan depending on the wealth levels of the component districts. If there is a large proportion of the pupils on flat grant or if per pupil wealth is very high in a large district, the State aid will tend to decrease rather than increase in the example above.

Table 20

EFFECT ON TAX RATES OF PLAN B
FOR 42 CAPITAL AREA DISTRICTS, 1966-67

Full Value Per Pupil	Tax Rate		Change In Tax Rate	
	Present	Proposed	Plus	Minus
\$154,699	\$ 6.08	\$14.37	\$8.29	
48,895	12.20	15.10	2.90	
45,886	11.42	12.02	.60	
38,265	17.77	14.32		\$3.45
35,386	17.03	12.82		4.21
34,197	16.90	13.04		3.86
27,478	19.69	15.03		4.66
25,875	15.88	13.89		1.99
24,856	20.42	13.29		7.13
24,774	17.11	13.47		3.64
24,015	15.28	12.62		2.66
23,842	12.17	11.43		.74
23,660	10.71	11.00	.29	
21,663	13.64	14.37	.67	
20,964	11.14	11.00		.14
20,490	15.90	11.37		4.53
19,849	14.89	12.49		2.40
19,673	16.62	13.95		2.67
19,084	15.50	12.51		2.99
19,032	16.17	13.12		3.05
17,926	15.77	11.19		4.58
17,574	14.91	11.00		3.91
17,118	16.92	12.14		4.78
16,987	15.43	11.00		4.43
16,470	17.73	12.58		5.15
16,310	13.47	11.00		2.47
15,993	20.70	14.09		6.61
15,993	12.90	11.00		1.90
14,330	12.12	11.00		1.12
14,063	10.89	11.00	.11	
14,051	13.29	11.00		2.29
13,903	15.14	11.00		4.14
13,804	20.17	11.74		8.43
13,701	15.94	11.00		4.94
13,546	14.53	11.00		3.53
13,536	21.53	12.60		8.93
13,014	13.82	11.00		2.82
12,958	12.72	11.00		1.72
12,760	14.26	11.00		2.26
12,277	13.74	11.00		2.74
10,873	13.47	11.00		2.47
10,557	14.45	11.00		3.45

Column one lists the districts in order of wealth (full value per pupil) from high to low. Column two shows the present tax rate while column three shows the new tax rate under the proposed plan. Columns four and five show increase or decrease in tax rate under the proposed plan.

Six districts are required to raise their taxes--among these are the three highest tax base districts, two of which have been taxing themselves less than \$11.00 per thousand. The new tax rates range from a high of \$15.10 per thousand to a low of \$11.00 rather than from a high of \$21.53 per thousand to a low of \$6.08 as at present.

Summary

The two levels of regional taxation shown above are designed to illustrate the varying fiscal impact of a regional approach to financing education in the capital area. A wide variety of tax levels are possible.

The first illustrates changes in taxation if local costs of debt service and transportation were shared on a regional basis. The tax services would be distributed equally over the entire four-county area. The increase or decrease in tax rate would not be drastic.

The second, as illustrated in Table 20, with the State providing an incentive to reorganize fiscally, means that at least 36 of the 42 districts could have the present level of financing with reduced tax rates. This is the result of levying taxes at more uniform rates over the area and the increased State aid on the basis of the area-wide ratio. Only two districts would have to increase taxes substantially.

It is impossible, of course, to predict the effect of a change such as this on educational programs. Presumably, a considerable part of the amounts freed from local taxes in the 36 districts would go to improve program, and to making educational provisions more uniform over the area.

The study indicates that regional financing of education could be made fiscally attractive at a relatively small increased cost to the State.

The wide disparity in local tax rates could be reduced, with almost all but the wealthiest districts having lower tax rates than previously. The benefits in opportunity for improved local programs and innovations in regional program should prove to be substantial.

VIII

TEACHER MOBILITY

The largest single item of the average school district's budget is professional salaries. Since teachers account for the largest segment of the professional category, it might be profitable to consider the available data on the movement pattern and experience of selected groups of teachers within various regional areas over a period of years, and to formulate certain hypotheses from these data. This report is one of a series examining the relationship of professional staff to educational expenditures.

Education is enormously valuable in a strictly economic sense. The rate of return to investment in schooling is as high or higher than it is to nonhuman capital, even when one attributes all of the cost of schooling to investment in earnings and none to consumption. As a source of economic growth, the additional schooling of the labor force would appear to account for about 1/5 of the rise in real national income in the United States between 1929 and 1957.

Indeed, education produces the most powerful agent of economic progress-- resourceful people, aware of the accomplishments of the past and equipped with the ability to build a better future.

Education is very costly as well as very productive. It consumes not only very large sums of money but also, and more fundamentally, the time and effort of many people, including teachers and students.

The Samples

Sample #1

The teacher entrant population for the entire State, less New York City with its separate system, for the period 1920-21 through 1965-66, was considered as a unit. This unit was broken into four equal segments

or groups. The first group would be from 1920-21 through the year determined by the break occasioned by the 25 percent separation. The next or second group would contain the next 25 percent, etc.

From the first group a random sample of 75 teachers was selected, and the same procedure was used for the other three groups. Thus the total sample was composed of 300 teachers.

Sample #2

The total teacher entrants for the school years 1950-51, 1955-56, 1960-61, and 1965-66 were considered as four separate groups. From the first group, 1950-51, 75 teachers were randomly selected, and the same procedure was repeated for the other three groups. The total was composed of 300 teachers.

The two samples were devised to permit examinations of teacher mobility over a long period of time (1920-1966) and also to determine if the pattern was a continuing or changing one by examining a later, shorter period of time (1950-1966).

For both samples, the year of entry, sex, age, salary, and employment record were noted for each teacher from time of entry until 1965-66, unless the teacher left the retirement system before this date.

Although the data include the above items, they do not necessarily give previous service either in New York City with its separate system, or in another state, or in New York State when the teacher had a break in service and obtained a new retirement number upon reentry.

The Regional Areas

The regions identified are the New York City metropolitan region, exclusive of New York City, which for this study includes the counties of Dutchess, Nassau, Rockland, Suffolk, and Westchester. The upstate metropolitan region includes the counties of Albany, Broome, Erie, Herkimer, Madison, Monroe, Niagara, Oneida, Onondaga, Oswego, Rensselaer, Saratoga, and Schenectady. All other counties are included in the upstate nonmetropolitan region. The grouping outlined rested on the assumption that movement of teachers would be toward metropolitan regions and particularly toward the New York City metropolitan region.

Degree of Mobility

Table 21 shows the mobility of the teachers in the first sample.

Table 21

MOBILITY OF TEACHING STAFF
1921-22 TO 1965-66

Status of Teachers	Percent		
	Male	Female	Total
First Year of Teaching 1965-66	10.1%	9.0%	8.7%
Remained in Same District	48.1	38.5	41.0
Taught in More Than One District	29.1	31.2	30.7
Left After First Year of Teaching	12.7	21.3	19.6
TOTAL	100.0	100.0	100.0

Of all the teachers in Sample #1, about 9 percent were first-year teachers in 1965-66 and 4 percent had taught in only one district. Approximately 2 percent had left teaching after the first year and almost 31 percent had experience in more than one district. Male teachers were not as likely to leave the profession after the first year of teaching and were more likely to remain in the same district than female teachers. About 31 percent of both male and female teachers moved, with the percentage of females being a little higher than the percentage of males.

Table 22 shows the mobility of the teachers in the second sample.

Table 22
MOBILITY OF TEACHERS FROM SELECTED YEARS
1950-51 TO 1960-61

Status of Teachers	Percent
Remained in District	49.3%
Moved	33.7
Left After First Year of Teaching	16.9

Of the teachers in Sample #2 who joined the retirement system in 1950-51, 1955-56, and 1960-61, 49.3 percent have not moved, 16.9 percent left after the first year of teaching, and 33.7 percent have had experience in more than one district.

Tables 23, 23a, and 23b utilize the data in both samples to classify the 1965-66 teaching staff by mobility, sex, and geographic region.

Table 23

NEW YORK STATE EXCLUSIVE OF NEW YORK CITY

Status of Teachers	Percent		
	Male	Female	Total
Mover	24.4%	23.5%	23.5%
Stayer	55.5	53.0	54.7
First year teacher (1965-66)	20.1	23.5	21.8
Total	100.0	100.0	100.0

Table 23a

METROPOLITAN NEW YORK AREA
EXCLUSIVE OF NEW YORK CITY

Status of Teachers	Percent		
	Male	Female	Total
Mover	30.8%	13.9%	18.4%
Stayer	61.5	61.1	61.2
First year teacher (1965-66)	7.7	25.0	20.4
Total	100.0	100.0	100.0

Table 23b

UPSTATE METROPOLITAN

Status of Teachers	Percent		
	Male	Female	Total
Mover	26.2%	25.0%	25.6%
Stayer	56.5	60.0	58.1
First year teacher (1965-66)	17.3	15.0	16.3
Total	100.0	100.0	100.0

UPSTATE NONMETROPOLITAN

Status of Teachers	Percent		
	Male	Female	Total
Mover	11.2%	33.3%	27.7%
Stayer	44.4	40.7	41.7
First year teacher (1965-66)	44.4	25.9	30.6
Total	100.0	100.0	100.0

For the total State (exclusive of New York City) and the upstate metropolitan region, mobility was about the same for males and females. There was considerable variation, however, in the metropolitan New York Area and in the upstate nonmetropolitan regions. In the metropolitan New York Area only 13.9 percent of the women were movers, while 30.8 percent of the males moved. In the upstate nonmetropolitan region these percentages were reversed with 33.3 percent of the women moving, while only 11.2 percent of the males moved.

The two metropolitan regions had a higher percentage of stayers and a lower percentage of teachers in their first year of teaching, than the upstate nonmetropolitan region or the State as a whole.

Mobility Within and Between Districts

The total State (excluding New York City) had 23.5 percent of its staff classified as movers. Table 23c shows where the movement occurred.

Table 23c

MOBILITY WITHIN AND BETWEEN DISTRICTS

	Total State	Metropolitan New York Region	Upstate Metropolitan Region	Upstate Non-Metropolitan Region
Movers	23.5	18.4	25.6	27.7
-----	-----	-----	-----	-----
Within <u>1/</u>	10.2	4.1	11.6	14.4
Between <u>2/</u>	13.3	14.2	14.0	13.3
-----	-----	-----	-----	-----
Moved Out	13.3	6.1	14.0	26.6

1/ Moved within area from one district to another

2/ Moved from one area to another

Of the total number of movers in the State (23.5 percent), 10.2 percent moved within the area while the remaining 13.3 percent moved between regions, with the moved-in equalling the moved-out. The upstate nonmetropolitan region had the largest amount of mobility within its area, while the mobility between regions was the same as the State as a whole. The movement out of this region into others, however, was twice as high as the total State and more than three times that of the metropolitan New York region. From this, it would appear that the upstate nonmetropolitan group loses teachers to each of the metropolitan groups while the New York City metropolitan group loses very few to either of the other areas, and the upstate metropolitan group loses to maintain a balance with the other areas.

Table 24 presents a breakdown by regional area of the 1965-66 teaching staff for Sample #1 and gives relevant data concerning recruitment.

Table 24

RECRUITMENT OF TEACHING STAFF FOR SCHOOL YEAR 1965-66
RATED BY EXPERIENCE AND SEX

	Total	Experienced	Inexperienced	Male	Female
New York City Metropolitan Area	26.4%	31.5%	23.3%	23.2%	27.5%
Upstate Metropolitan Area	34.0	36.0	32.8	43.5	30.6
Upstate Nonmetropolitan Area	39.6	32.4	43.9	33.3	41.9
Total	100.0	100.0	100.0	100.0	100.0

Of the experienced teachers recruited in 1965-66, 31.5 percent went to the New York City metropolitan area, 36.0 percent to the upstate metropolitan area, and 32.4 percent to the upstate nonmetropolitan area.

Of the inexperienced teachers recruited for the same year, the New York City metropolitan area received 23.3 percent, the upstate metropolitan 32.8 percent, and the upstate nonmetropolitan 43.9 percent.

Of the male teachers recruited for the year, 23.2 percent went to the New York City metropolitan area, 43.5 percent to the upstate metropolitan area, 33.3 percent to the upstate nonmetropolitan area.

Of the female teachers recruited, 27.5 percent went to the New York City metropolitan area, 30.6 percent to the upstate metropolitan area, and 41.9 percent to the upstate nonmetropolitan area.

Tables 24a and 24b show that the growth in the metropolitan New York City counties is reflected by the growth in the teacher recruitment percentage from 10.7 percent in the first group to 34.7 percent in the last group.

Table 24a

RECRUITMENT OF TEACHERS BY GEOGRAPHIC REGION
BY
EQUAL INTERVALS OF NEW ENTRANTS
1921-22 TO 1965-66
(Sample #1)

	Group 1	Group 2	Group 3	Group 4
New York City Metropolitan Counties (exclusive of New York City)	10.7%	26.7%	33.3%	34.7%
Upstate Metropolitan Counties	33.3	24.0	42.7	36.0
Upstate Nonmetropolitan Counties	56.0	49.3	24.0	29.3
Total	100.0	100.0	100.0	100.0

In the later years of both samples, the metropolitan counties recruited more teachers than the nonmetropolitan counties.

Table 24b

RECRUITMENT OF TEACHERS BY GEOGRAPHIC REGION
FOR 4 SELECTED YEARS
(Sample #2)

	1950-51	1955-56	1960-61	1965-66
New York City Metropolitan Counties (Exclusive of New York City)	33.3%	46.7%	36.0%	41.3%
Upstate Metropolitan Counties	28.0	30.7	36.0	34.7
Upstate Nonmetropolitan Counties	38.7	22.6	28.0	24.0
Total	100.0	100.0	100.0	100.0

Summary

From the data presented, one can conclude that approximately one in every three teachers recruited will move at least once during his career. Two out of five will remain in the same district they started teaching in, and one out of five will leave teaching after the first year. The teacher beginning in the upstate-metropolitan region is more apt to move than a teacher beginning in any other region of the State, while a teacher starting in the Metropolitan New York region is less apt to move.

It would appear that the upstate nonmetropolitan region is the training area for a large number of teachers who subsequently move to the metropolitan regions of the State, and that the metropolitan New York region is best able to retain the teachers it recruits.

Perhaps the most interesting fact to emerge from this study is that one out of five teachers will leave teaching after the first year. This loss of such a large number of professionally trained people certainly needs to be investigated to determine why they leave and also how they might be kept in the profession.

APPENDIX

INDEX OF STUDIES AVAILABLE FOR DISTRIBUTION

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INDEX OF STUDIES AVAILABLE FOR DISTRIBUTION

ANALYSIS OF SCHOOL FINANCES
NEW YORK STATE SCHOOL DISTRICTS

This is an annual publication which provides 5 year trends in many significant financial data. The purpose is to provide a meaningful perspective to the Executive Department, the Legislature, and the Education Department in long range planning for a strong educational finance structure.

STUDIES OF PUBLIC SCHOOL SUPPORT

This is an annual publication which assembles background information for various interest groups and provides prompt and accurate information for the assessment of legislative proposals.

UNDERSTANDING FINANCIAL SUPPORT OF PUBLIC SCHOOLS
September 1968

This report is designed to provide a fairly simplified version of the otherwise complex State aid formula.

THE DETERMINANTS OF EDUCATIONAL EXPENDITURES IN NEW YORK STATE
August 1968

This study contributes to the understanding of the basic factors which affect educational expenditures.

THE REGIONAL SUPPORT OF EDUCATION IN THE ALBANY CAPITAL AREA
June 1968

This study supplies basic data by which some effects of regional financing can be assessed. It examines two approaches to the partial financing of education on a regional basis.

MIDDLE SCHOOL COSTS IN NEW YORK STATE
January 1968

This report is designed to provide information on costs in such schools and to provide guidance to school system officials who are considering the Middle School organization.

MEASUREMENT OF THE ABILITY OF LOCAL GOVERNMENTS TO FINANCE LOCAL PUBLIC SERVICES
May 1967

This study examines a variety of alternative measures of local fiscal ability, including income, sales, property value, and various combinations of these.

FINANCIAL CHARACTERISTICS OF HIGH EXPENDITURE DISTRICTS IN NEW YORK STATE
April 1967

This report examines and outlines the characteristics of high expenditure districts.

A SUMMARY REPORT ON AN ANALYSIS OF NEW YORK STATE SCHOOL AID CORRECTION
December 1966

This report's focus is upon a refinement in the determination of need for operating expenses aid, previously known as "size correction aid."

**VARIATIONS IN PUBLIC SCHOOL EXPENDITURES ASSOCIATED
WITH CHANGES IN ELEMENTARY AND SECONDARY ENROLLMENTS**
July 1966

This report examines the problem of "weightings" for State aid for elementary and secondary attendance.

TWO ALTERNATIVE MEASURES OF DENSITY
July 1966

This report contains individual district data on measures of public school density and wealth.

A SUMMARY REPORT ON THE PROBLEMS OF RAPID GROWTH DISTRICTS
April 1966

This report subjects some previously accepted hypotheses to empirical tests and analyzes the results of these tests. The period covered by the report is the first 3 years of the Diefendorf cost sharing formula.

TOWARD A SYSTEM OF CLASSIFICATION OF SCHOOL DISTRICTS IN NEW YORK STATE
January 1966

This study was initiated in the hope of improving the classification of school districts presently in use in our research reports.