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This is a study which sets forth the pertinent facts concerning the possible centralization of the school districts of Broadalbin, Edinburg, Mayfield, Northville, and Perth, located in New York State. An appraisal of advantages and disadvantages of certain possible courses of action is presented with cost estimates. There are 6 major parts of the study included: (1) enrollment projections; (2) school building or facilities analyses; (3) curriculum needs; (4) school district reorganization--an analysis conducted in New Jersey; (5) financial considerations; and (6) recommendations. It is recommended that the 5 school districts proceed to take the necessary steps to reorganize into a single unit, to build a single 1,200-pupil high school (9-12), and to renovate and convert existing facilities for K-8. A time table is recommended by which the procedures would begin in September 1969 and conclude in December 1973. (SW)

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A STUDY OF CENTRALIZATION

BROADALBIN

EDINBURG

MAYFIELD

NORTHVILLE

PERTH

NEW YORK DECEMBER 1968

RC003196

Engelhardt, Engelhardt and Leggett, inc. Educational Consultants

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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A STUDY OF CENTRALIZATION

Broadalbin, Edinburg, Mayfield,
Northville, and Perth, New York

December, 1968

Engelhardt, Engelhardt and Leggett, Inc. - Educational Consultants
Purdy Station, Westchester County, New York

CENTRAL SCHOOL DISTRICT NO. 1
Town of Broadalbin

DISTRICT OFFICERS

Leland S. Reed,
President

William Brauns,
Vice President

Millard Brown

Victor Christopher, Jr.

Peter Klymkow

* * *

James C. Murray,
District Principal

* * *

COMMON SCHOOL DISTRICT NO. 1
Town of Edinburg, Saratoga County

DISTRICT OFFICERS

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Chairman

Charles Fuller

Jaro Malec

* * *

Neil S. Swingruber,
Principal

* * *

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Town of Mayfield

DISTRICT OFFICERS

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President

Cecil Van Nostrand,
Vice President

David Edwards

Theodore A. Goossen

Harry McIntosh

* * *

James W. Smithers,
District Principal

* * *

CENTRAL SCHOOL DISTRICT NO. 1
Town of Northampton

DISTRICT OFFICERS

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President

Andrew MacDonald,
Vice President

Donald Decker

Eugene Jarvis

William P. Yates

* * *

Charles G. Owens,
District Principal

* * *

CENTRAL SCHOOL DISTRICT NO. 1
Town of Perth

DISTRICT OFFICERS

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President

Edward Fuerst,
Vice President

Norman Benjamin

Arnold Frederick

John Vdoviak

* * *

Charles McConville,
District Principal

* * *

Donald L. Abbey,
District Superintendent of Schools
Sole Supervisory District of
Hamilton, Fulton, and Montgomery Counties

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PREFACE

The purpose of this study is to set forth the pertinent facts concerning the possible centralization of the school districts of Broadalbin, Edinburg, Mayfield, Northville, and Perth. Insofar as possible, a realistic appraisal of the advantages and disadvantages of certain possible courses of action will be set forth. These statements will be supported by cost estimates.

At the end of the report the best recommendation of the study group will be provided. However, a purpose of this study is to provide information to the Boards of Education (and publics) involved so that they may independently arrive at an intelligent decision concerning centralization.

This study is divided into six major par.s. These are as follows:

I Enrollment projections - the numbers of pupils to be accommodated

II School building analysis - an estimate of the capacity of present buildings to meet enrollment and educational needs

III Curriculum needs - certain aspects of curriculum and curriculum change which have an influence on program, staff and building needs

IV School district reorganization - an analysis conducted in New Jersey

V Financial considerations - for the individual districts and for the reorganized districts

VI Recommendations - the recommendations of the study group

ENROLLMENT PROJECTIONS

In this chapter, individual enrollment projections will be developed for each of the districts. Tuition pupils from non-operative districts will be dropped from consideration in Broadalbin, Mayfield, and Perth based on present state-level decisions to transfer responsibility for such pupils to other districts.

Broadalbin

Grade-by-grade enrollments in the Broadalbin public schools are shown in Table 1. Over the past three years there has been a drop in kindergarten enrollments, a leveling off of elementary enrollments, and a continued rise in secondary enrollments.

Because it is part of an attractive recreation area and because there is an abundant supply of good land for residential construction, the district is expected to grow steadily during the years ahead.

Table 2 shows the estimated enrollments for Broadalbin from 1969-70 through 1978-79.

Table 1
GRADE-BY-GRADE RESIDENT ENROLLMENTS
Broadalbin Central School
1964-65 through 1968-69

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Sp.	1-6	7-12	1-8	9-12	Total
1964-65	61	78	70	72	76	68	86	72	86	68	54	48	69	9	450	397	608	239	917
1965-66	84	88	74	72	71	78	74	82	73	87	50	61	36	13	457	389	612	234	943
1966-67	69	82	84	72	72	76	80	03	85	80	76	44	55	14	466	403	614	255	952
1967-68	69	72	82	83	74	71	79	77	68	99	68	66	44	7	461	422	606	277	959
1968-69	66	74	73	87	82	76	69	80	80	78	86	66	67	9	461	457	621	297	993

Table 2
RESIDENT ENROLLMENT PROJECTIONS
Broadalbin Central School
1969-70 through 1978-79

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Sp.	1-6	7-12	1-8	9-12	Total
1968-69*	66	74	73	87	82	76	69	80	80	78	86	66	67	9	461	457	621	297	993
1969-70	70	70	75	74	88	83	77	68	85	93	67	83	61	10	467	457	620	304	1,004
1970-71	66	74	71	77	75	89	84	76	72	99	80	64	76	11	470	467	618	319	1,014
1971-72	79	70	75	72	78	76	90	83	81	84	85	77	59	12	461	469	625	305	1,021
1972-73	81	84	71	77	73	79	77	89	88	94	72	82	71	13	461	496	638	319	1,051
1973-74	83	86	85	72	78	74	80	76	94	102	81	69	75	14	475	497	645	327	1,069
1974-75	85	88	87	87	73	79	75	79	81	109	88	78	63	15	489	498	649	338	1,087
1975-76	87	90	89	89	88	74	80	74	84	94	94	84	72	16	510	502	668	344	1,115
1976-77	89	92	91	91	90	89	75	79	78	97	81	90	77	17	528	502	685	345	1,136
1977-78	91	94	93	93	92	91	90	74	84	90	83	78	83	18	553	492	711	334	1,154
1978-79	93	96	95	95	94	93	92	89	78	97	77	80	72	19	565	493	732	326	1,170

* Enrollments for 1968-69 are actual.

Edinburg

Edinburg is the smallest of the independent districts under study. Because of its small size, the history of grade-by-grade enrollment is statistically unreliable. Typical enrollment patterns indicate that planning allowances for 20 to 25 children per grade should be provided. As in the case of other districts, enrollment is anticipated to grow slightly during the next several years. The enrollments in kindergarten through fifth grade should increase from the vicinity of 120 to 130 to the vicinity of 140 to 150 during the course of the projection period, about 25 students per grade level.

Pupils from Edinburg in grades six through twelve are included in the data and projections for Northville, following the present tuition pattern.

Mayfield

Grade-by-grade resident enrollments in the Mayfield public schools are shown in Table 3. Kindergarten enrollments have remained relatively stable. Individual grade-to-grade ratios have been irregular with gains in grades one, four, and six and losses in grades three and ten.

Continued growth is anticipated in the community. There is an abundant supply of good land for residential construction. The district is expected to grow steadily during the years ahead.

Estimated enrollments for the Mayfield schools are shown in Table 4.

Table 3
GRADE-BY-GRADE RESIDENT ENROLLMENTS
Mayfield Central School
1964-65 through 1968-69

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Sp.	1-6	7-12	1-8	9-12	Total
1964-65	92	90	86	84	92	88	68	95	69	103	44	65	74	-	508	450	672	286	1,050
1965-66	108	95	100	72	97	82	79	74	80	78	76	54	58	-	525	420	679	266	1,053
1966-67	93	111	104	103	68	94	84	84	68	84	69	69	54	-	564	428	716	276	1,085
1967-68	96	106	104	96	105	70	100	87	72	83	67	74	65	-	581	448	740	289	1,125
1968-69	98	107	103	88	112	100	80	98	86	68	70	68	70	13	590	460	774	276	1,161

Table 4
RESIDENT ENROLLMENT PROJECTIONS
Mayfield Central School
1969-70 through 1978-79

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Sp.	1-6	7-12	1-8	9-12	Total
1968-69*	98	107	103	88	112	100	80	98	86	68	70	68	70	13	590	460	774	276	1,161
1969-70	87	110	107	98	92	110	103	83	97	88	61	71	67	15	620	467	800	287	1,189
1970-71	82	97	110	102	103	90	113	107	82	99	79	62	70	16	615	499	804	310	1,212
1971-72	91	92	97	105	107	101	93	118	106	84	89	81	61	16	595	539	819	315	1,241
1972-73	93	102	92	92	110	105	104	97	117	108	76	91	79	17	605	568	819	354	1,283
1973-74	95	104	102	87	97	108	108	108	96	119	97	78	89	17	606	587	810	383	1,305
1974-75	97	106	104	97	91	95	111	112	107	98	107	99	76	17	604	599	823	380	1,317
1975-76	99	109	106	99	102	89	98	115	111	109	88	109	97	18	603	629	829	403	1,349
1976-77	101	111	109	101	104	100	92	102	114	113	98	90	107	19	617	624	833	408	1,361
1977-78	103	113	111	104	106	102	103	96	101	116	102	100	88	19	639	603	836	406	1,364
1978-79	105	115	113	105	109	104	105	107	95	103	104	104	98	20	651	611	853	409	1,387

* Enrollments for 1968-69 are actual.

Northville

Grade-by-grade enrollments in the Northville public schools are shown in Table 5. Over the past five years, all grade enrollments have been relatively stable.

The community will grow gradually. With increased national emphasis on education, the holding power of the schools, particularly in the secondary grades, is expected to improve.

Elementary enrollments are expected to rise more slowly than secondary enrollments, as shown in Table 6.

Table 5
GRADE-BY-GRADE ENROLLMENTS
Northville Central School
1964-65 through 1968-69

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Sp.	1-6	7-12	1-8	9-12	Total
1964-65	49	58	51	56	59	48	64	58	67	63	60	49	39	11	336	336	461	211	732
1965-66	45	54	49	49	57	54	59	64	57	70	52	55	46	12	322	344	443	223	723
1966-67	51	63	42	49	49	52	71	56	63	60	56	56	42	9	326	333	445	214	719
1967-68	57	62	54	43	51	51	60	76	55	58	57	47	50	8	321	343	452	212	729
1968-69	54	59	55	58	41	53	75	55	77	53	48	50	43	8	341	326	473	194	729

Table 6
ENROLLMENT PROJECTIONS
Northville Central School
1969-70 through 1978-79

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Sp.	1-6	7-12	1-8	9-12	Total
1968-69*	54	59	55	58	41	53	75	55	77	53	48	50	43	8	341	326	473	194	729
1969-70	52	62	53	58	60	43	77	73	56	75	45	43	48	9	353	340	482	211	754
1970-71	55	60	56	56	60	62	62	75	74	55	64	41	41	9	356	350	505	201	770
1971-72	50	63	54	59	58	62	90	60	77	73	47	58	39	10	386	354	523	217	800
1972-73	52	58	57	57	61	60	90	87	61	75	62	42	55	10	383	382	531	234	827
1973-74	54	60	52	60	59	63	87	87	89	60	64	56	40	10	381	396	557	220	841
1974-75	56	62	54	55	62	61	91	84	89	87	51	58	53	10	385	422	558	249	873
1975-76	58	64	56	57	57	64	88	88	86	87	74	46	55	10	386	436	560	262	890
1976-77	60	67	58	59	59	59	86	85	90	84	74	67	44	10	388	444	563	269	902
1977-78	62	69	60	61	61	61	88	83	87	88	71	67	64	11	400	460	570	290	933
1978-79	64	71	62	63	63	63	91	85	85	85	75	64	64	11	413	458	583	288	946

* Enrollments for 1968-69 are actual.

Perth

Resident enrollments in Perth are set forth in Table 7. It is at once apparent that the resident enrollment has been about three-fourths of the total enrollment in recent years. Loss of the tuition pupils will put a severe dent in the school program, particularly at the secondary level.

The area is expected to grow, however, but within the projected period it is not expected to exceed present enrollment levels which include tuition pupils. Projected enrollments are shown in Table 8.

Table 7
GRADE-BY-GRADE RESIDENT ENROLLMENTS
Perth Central School
1967-68 through 1968-69

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Sp.	1-6	7-12	1-8	9-12	Total
1967-68	55	54	57	44	62	56	53	66	51	51	58	40	36	5	326	302	443	185	688
1968-69	58	59	50	51	49	62	57	47	66	50	46	57	44	7	328	310	441	197	703

Table 8
RESIDENT ENROLLMENT PROJECTIONS
Perth Central School
1969-70 through 1978-79

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Sp.	1-6	7-12	1-8	9-12	Total
1968-69*	58	59	50	51	49	62	57	47	66	50	46	57	44	7	328	310	441	197	703
1969-70	45	60	58	49	50	53	66	64	47	65	48	38	55	14	336	317	447	206	712
1970-71	50	50	61	59	51	52	55	71	63	47	62	47	39	14	328	329	462	195	721
1971-72	49	56	51	62	61	53	54	59	70	64	45	61	48	15	337	347	466	218	748
1972-73	51	54	57	52	64	63	55	58	58	71	61	44	62	16	345	354	461	238	766
1973-74	53	57	55	58	54	66	66	59	57	59	67	60	45	17	356	347	472	231	773
1974-75	55	59	58	56	60	56	69	71	58	58	56	66	61	17	358	370	487	241	800
1975-76	57	61	60	59	58	62	58	75	70	59	55	55	67	17	358	381	503	236	813
1976-77	59	63	62	61	61	60	64	63	74	71	56	54	56	18	371	374	508	237	822
1977-78	61	65	64	63	63	63	62	69	62	75	67	55	55	18	380	383	511	252	842
1978-79	63	68	66	65	66	65	66	67	68	63	71	66	56	19	396	391	531	256	869

* Enrollments for 1968-69 are actual.

Combined Enrollments

There are three basic combinations to be considered in analyzing centralization. These are as follows:

1. To continue as individual districts
2. To centralize all five districts
3. To centralize Broadalbin and Perth; and Edinburg, Mayfield, and Northville.

Individual district enrollment projections are shown in Tables 2, 4, 6, and 8. The enrollment projections for centralization of all five districts are shown in Table 9.

Enrollment projections for centralizing into two separate districts are shown in Tables 10 and 11.

All of the projections show the gradual upward trend of school enrollments in the area.

Table 9

ENROLLMENT PROJECTIONS FOR BROADALBIN, EDINBURG, MAYFIELD, NORTHVILLE, AND PERTH, NEW YORK

1969-70 through 1978-79

Year	K	Sp.	1-6	7-12	1-8	9-12	Total
1968-69*	294	37	1,820	1,553	2,409	564	3,704
1969-70	274	48	1,878	1,581	2,451	1,008	3,781
1970-71	274	50	1,873	1,645	2,493	1,025	3,842
1971-72	290	53	1,885	1,709	2,539	1,055	3,937
1972-73	299	56	1,902	1,800	2,557	1,145	4,057
1973-74	307	57	1,928	1,827	2,594	1,161	4,119
1974-75	316	59	1,948	1,889	2,629	1,208	4,212
1975-76	324	61	1,971	1,948	2,674	1,245	4,304
1976-77	330	64	2,020	1,944	2,705	1,259	4,358
1977-78	341	66	2,090	1,938	2,746	1,282	4,435
1978-79	350	69	2,145	1,953	2,819	1,279	4,517

* Enrollments for 1968-69 are actual.

Table 10
ENROLLMENT PROJECTIONS FOR BROADALBIN AND PERTH, NEW YORK
1969-70 through 1978-79

Year	K	Sp.	1-6	7-12	1-8	9-12	Total
1968-69*	124	16	789	767	1,062	494	1,696
1969-70	115	24	803	774	1,067	510	1,716
1970-71	116	25	798	796	1,080	514	1,735
1971-72	128	27	798	816	1,091	523	1,769
1972-73	132	29	806	850	1,099	557	1,817
1973-74	136	31	831	844	1,117	558	1,842
1974-75	140	32	847	868	1,136	579	1,887
1975-76	144	33	868	883	1,171	580	1,928
1976-77	148	35	899	876	1,193	582	1,958
1977-78	152	36	933	875	1,222	586	1,996
1978-79	156	38	961	884	1,263	582	2,039

* Enrollments for 1968-69 are actual.

Table 11
ENROLLMENT PROJECTIONS FOR EDINBURG,
NORTHVILLE, AND MAYFIELD, NEW YORK
1969-70 through 1978-79

Year	K	Sp.	1-6	7-12	1-8	9-12	Total
1968-69*	170	21	1,031	786	1,347	470	2,008
1969-70	159	24	1,075	807	1,384	498	2,065
1970-71	158	25	1,075	849	1,413	511	2,107
1971-72	162	26	1,087	893	1,448	532	2,168
1972-73	167	27	1,096	950	1,458	588	2,240
1973-74	171	27	1,097	983	1,477	603	2,278
1974-75	176	27	1,101	1,021	1,493	629	2,325
1975-76	180	28	1,103	1,065	1,503	665	2,376
1976-77	185	29	1,121	1,068	1,512	677	2,403
1977-78	189	30	1,157	1,063	1,524	696	2,439
1978-79	194	31	1,184	1,069	1,556	697	2,478

* Enrollments for 1968-69 are actual.

II

EXISTING FACILITIES

Understandably, a district cannot ignore the nature of existing facilities. Existing buildings must be fully utilized, and consideration should be given to their enrollment capacities and their general character.

It is quite obvious, in the light of trends in technology and our present and projected job needs, that education is the ladder for upward economic movement. It is, therefore, essential that the quality of education be uniformly high at all schools and school levels of the area. In the following pages, each of the buildings will be analyzed in terms of its potential for aiding or hindering emerging curriculum practices, as discussed in Chapter III.

Although some of the analysis may appear to emphasize building deficiencies, the purpose of the analysis is to point out things which need to be improved to keep the educational program moving forward. No particular attempt has been made to point out good features of a building; it is assumed that the reader will interpret this document accordingly.

Broadalbin Elementary School

Broadalbin Elementary School houses pupils in kindergarten through grade three. The original section of the building was constructed in 1920, with an addition in 1951. The structure is located on a 12-acre site. The site is level and convenient to village residents.

The building contains 2 kindergarten rooms and 12 classrooms, 4 of them in the original structure. In addition to the two regular kindergarten rooms, one of the regular classrooms is also used for kindergarten. Other spaces include a combination auditorium-gymnasium-cafeteria, a teachers' room, an office, and a library.

Classrooms in the older section lack acoustical treatment, have exposed iron radiators, and have chalkboard in only fair condition. This section of the building also contains the library. The library is very small and quite inadequate for a modern educational program. There is seating for 24 and provis' on for fewer than 2,000 volumes. There is no provision for multi-media resources such as might be found in some newer buildings. This section also contains wooden staircases, a very undesirable feature in a school. The old building has sprinkler protection throughout.

Classrooms in the newer section are excellent. This section is heated from the old.

As now arranged, building capacity is calculated as follows:

2 Kindergartens @ 25	50
12 Classrooms @ 27	324
Total Capacity	374

The current enrollment in kindergarten through third grade is 327 pupils.

Broadalbin High School

Broadalbin High School houses pupils in grades four through twelve. As in the case of the elementary building, there is an original section and a new wing. The old wing was constructed in 1934 and the new wing in 1958.

The building contains 26 classrooms, 2 science rooms, 2 music, art room, home arts room, and a commercial room. There are also a combination gymnasium-auditorium and a library.

Regular classrooms are generally satisfactory, although some need acoustical treatment. Science for the younger pupils is taught in rooms which lack individual pupil work stations, although they do have demonstration desks for instructors. Preparation and storage areas are limited in the other three science spaces.

The high school office is too small, particularly in the waiting and mail area. The gymnasium is small for a high school program. The boys' showers are poor.

The art room lacks adequate pupil project storage. It is crowded with 30 desks for homeroom purposes but does not require more than 25 for regular class sizes.

No teachers' cafeteria has been provided. Teachers eat at a separate table in the regular lunchroom.

The commercial room is predominantly oriented to typing.

The library is inadequate for a school of this size. There is seating provision for 26 and shelf space for roughly 5,000 volumes. It is less than half the size a library should be for this school.

The home arts room is too small. The sewing area and foods area are each small; the space lacks a dressing area. Project and supply storage is very limited.

At the rear of the building there is a satisfactory auto shop. In still another building, there is a separate industrial arts shop. The equipment is good, but there is no finishing room nor is there adequate project storage. There is no sign of emergency shut-offs for power machinery.

Capacity of the building is calculated as follows:

25 Classrooms @ 27	675
3 Science rooms @ 24	72
1 Commercial room @ 25	25
2 Music rooms @ 30	60
1 Art room @ 25	25
1 Home arts room @ 20	20
2 Shops @ 20	40
1 Gymnasium @ 35	35
Total No. of Students	952
Capacity at 80 Per Cent Utilization	762

Present pupil enrollment in grades four through twelve is 849, which makes the facility overcrowded.

Edinburg Consolidated School

Edinburg Consolidated School houses pupils in kindergarten through grade five. The original building is very old; an addition was built in 1954. It is located on a site of six acres.

The building contains six classrooms, reading space, and a combination gymnasium-cafeteria. The combination gymnasium-cafeteria is adequate for a building of this size. The third grade classroom in the old wing is smaller than desirable, as is the fourth grade classroom downstairs. The size of other classrooms is all right.

The small reading room is attractive, but only a limited book collection is possible.

Essentially, the building is too small to serve as an efficient educational unit. It is not feasible to provide full-time supervision, health services, library services,

and specialists' services in reading, speech, art, music, science, guidance, and physical education that would be possible in a larger school unit.

Present capacity of the building is calculated as follows:

1 Kindergarten classroom @ 25	25
5 Classrooms @ 27	135
Total Capacity	160

Present enrollment in kindergarten through grade five is 125 pupils.

Mayfield Elementary School

Mayfield Elementary School presently houses kindergarten through grade six. The building was constructed in 1958. It is located on a site of 36 acres (of which 18 to 20 are usable). In 1965-67, temporary classrooms were added.

The permanent building contains 16 classrooms, gymnasium, combination cafeteria-auditorium, and office space. The temporary unit contains 12 classrooms, 3 small group or conference rooms, and a library.

The gymnasium is excellent. It contains a divider so that more than one group may use the space at the same time.

The library is attractive but too small for a school of this size. It should be at least twice as large. In fact, the present library is less than some state minimum standards. For example, in South Carolina for an elementary school to receive accreditation, the standards call for the following:

> Each school with 14 or more teachers shall have a library with a minimum of 1,300 square feet, excluding work and conference areas.*

* Standards for Accredited Elementary Schools of South Carolina, State Department of Education, 1965, p. 30.

The regular classrooms are attractive and adequate in size.

Present capacity of the building (1968-69) is calculated as follows:

4 Kindergarten classrooms in regular building @ 25	100
12 Classrooms in regular building @ 27	324
12 Temporary classrooms @ 27	324
Total Capacity	748

The current enrollment in kindergarten through grade six is 720, which indicates that the building is getting very close to capacity.

Mayfield Central School

The original building was constructed in 1939 on a site of 25 acres. Regular classroom spaces on the second floor are satisfactory. The home arts space is small, with only 12 pupil stations. In larger schools the teacher load for this subject is in the order of 20 pupils in each class.

The biology classroom is small and lacks adequate provision for individual pupil experimentation. The chemistry room has only 16 laboratory stations. The usual provision is for at least 24.

The library is also too small. There are seats for up to 40 students and a collection of five to six thousand volumes. The space, the variety of multi-media materials, and the collection should all be larger.

Regular classrooms on the first floor are generally satisfactory. Rooms 104 and 105 appear to be having problems with the floor lifting, but this can be corrected. The vocal music room is the same size as regular classrooms. It is not acoustically isolated.

The science room has double desks, but otherwise lacks the full range of facilities for individual experimentation.

The typing room is small for the purpose. There are only 22 machines, and the room is overcrowded. The other business education room is satisfactory.

The shop is small. As a result, there is limited supply and project storage space. A better finishing area is needed.

The nearby cafeteria serves 145 pupils per shift in three shifts. Unfortunately, there is only one small kitchen which is a limiting factor.

Office space for the principal is far too small. Better facilities should be provided. The health clinic is also too small.

The gymnasium also serves as an auditorium. It is small and not divided. It appears adequate for 35 high school pupils.

The instrumental music room is located in the basement beneath the vocal music room. The art room is across the hall. The art room is satisfactory except that the sink and drinking fountain are too low.

At the other end of the basement there is a classroom used for audiovisual purposes. This room should not be used for class groups since there is only one exit; it has not been included in the calculation of building capacity.

The present building capacity has been calculated as follows:

16 Classrooms @ 27	432
2 Science classrooms @ 27	54
1 Science laboratory @ 16	16
1 Home arts room @ 12	12
2 Music rooms @ 35	70
1 Business classroom @ 25	25
1 Typing room @ 22	22
1 Shop @ 20	20
1 Art @ 25	25
1 Gymnasium @ 35	35
Total No. of Students	711
Capacity at 80 Per Cent Utilization	569

The current enrollment in grades seven through twelve is 572. The building is at capacity.

Northville Central School

Northville Central School houses pupils in kindergarten through grade twelve in one structure. The original building was constructed in 1931. In 1951 the first addition to the building and a bus garage were added. The building was renovated in 1962. The structure is located on an 11-acre site. Although the site is level and convenient to village residents, it is completely inadequate in size.

The building contains 25 rooms, home arts room, 2 shops, 2 libraries, gymnasium, art room, and 4 temporary classrooms. It is anticipated that two additional temporary classrooms will be added to meet space needs in the future. They have not been included in the calculation of capacity, however.

Sixteen classrooms are used for elementary education, including the special education class. Most of the rooms are on the first floor, with four rooms in the

temporary units and the elementary library, the special education classroom, and one third grade classroom in the basement.

The elementary reading room and library are too small. They are about the size of a regular classroom. A library for an elementary school of this size should be at least twice as large as this. In addition, the library is remote from the majority of elementary classrooms, particularly the fifth and sixth grades who might be expected to use it most frequently.

The elementary classrooms vary in size. The smallest are in the original building such as rooms 2, 4, 6, and 8. They are really too small for a conventional elementary school program. They would be adequate as part of an independent study program or for secondary school use. The kindergarten room in the old section of the building next to the nurse's office is totally inadequate in size for this program.

The temporary classrooms are surprisingly good. They appear to offer space facilities quite comparable to classrooms in the 1951 wing.

Most of the secondary school classrooms are located on the second floor. In general, regular classrooms are satisfactory; but the two small rooms on either side of the typing room are only rated at a capacity of 15 each.

There are three science rooms, but none of them are first rate by current standards. The two rooms at the north end of the second floor lack pupil laboratory stations; one room has none, the other, but a few. The essence of the scientific method is verification by experiment. Students also lose the thrill of discovery when forced to rely on vicarious experiences or the instructor's demonstrations. The chemistry laboratory

is better in this regard, but it is too small, has antiquated furnishings, and inadequate storage provisions. There is no growing area for biology.

The library is totally inadequate for a modern secondary school. It is about the size of a classroom with seats for 32, and limited shelving space, about 4,000 volumes. A space about three times the present library size would be none too much.

The art room, which is in the basement, is long and narrow. It lacks adequate supply storage and pupil project storage space.

The music room is quite small. It is about half the size of a classroom. It is not really suitable for use by more than 20 students.

The shop is divided into a classroom and a machine space. The classroom is very crowded, and one enters down a flight of 11 steps from the first floor corridor. The machine room is also crowded. It lacks supply storage space and storage space for pupil projects that are under construction. The machine room is about one-third the size it should be. Some of the equipment is old and should be replaced.

The home economics area is also small. It is divided into foods and clothing sections, but neither is large enough by itself for a full-sized class group.

The gymnasium is typical of the size found in junior high schools. It has no flexible divider. The floor area appears appropriate for about 35 students at a time.

Office space for the high school principal is very poor. It is too small and badly located with respect to the school as a whole.

By an arbitrary division of rooms into elementary and secondary categories based on present usage, the building capacity is estimated as follows:

Elementary	
1 Kindergarten classroom @ 25 1 Kindergarten classroom @ 20	45
14 Classrooms @ 27	378
Total Capacity	423

Current elementary enrollment (1968-69) is 390, which indicates that the present space is about adequate.

Secondary	
5 Classrooms @ 27	135
2 Classrooms @ 20	40
3 Science rooms @ 24	72
2 Business rooms @ 25	50
1 Art room @ 25	25
1 Music room @ 20	20
2 Shops @ 15	30
1 Home arts room @ 20	20
1 Gymnasium @ 35	35
Total No. of Students	427
Capacity at 80 Per Cent Utilization	342

Current secondary enrollment (1968-69) is 325, which indicates that the building is becoming increasingly crowded and has about reached capacity.

Perth Central School

Perth Central School houses pupils in kindergarten through grade twelve in one building. It is on a site of about 24 acres. The original building was constructed in 1930. The first addition took place in 1952, with a second addition in 1957. Subsequently four temporary classrooms were added in 1965 and two temporary classrooms and temporary library in 1967.

The original section of the building is of nonfireproof construction. Starting on the second floor, rooms 203 and 205 are quite small. Taken together they would only be the equivalent of one classroom in calculating capacity. Classrooms 201, 202, 204, 206 and 208 are satisfactory general classrooms.

Room 207 is used for typing and instruction in general business. It is carpeted, which improves its acoustics. Unfortunately there is not adequate space for business machines.

The library is totally inadequate. It is far too small to serve a school for grades seven through twelve. In addition, it comes nowhere near the seating capacity recommended by the American Library Association. There are insufficient provisions for quiet work and study spaces. Nor are there provisions for audiovisual resources in any variety or quantity.

Room 209 across the corridor from the library is too small to be rated as a full-sized classroom in calculating capacity. Room 210 is used for guidance purposes. Rooms 211 and 214 are both being used for science in 1968-69. Room 211 is small and has but 16 laboratory stations, although there is ample regular seating. It is only rated at 16 capacity because of the limited number of laboratory stations.

There is only one home economics room, the size of a regular classroom. With equipment for foods, sewing, and family living there is really only room enough for 15 students. Other regular classrooms on this floor are rooms 215 and 216; they are rated at 27 pupils each.

On the first floor there are several spaces which are too small for efficient instruction. These include rooms 101, 102, and 103, the nurse's work area, the elementary

principal's office, and the faculty room. Rooms 105 through 111 are rated as full-sized rooms.

The girls' locker room is inadequate for the school. The shower is small, and the girls are already doubled up on lockers. In addition, the locker room is too far from the gymnasium for easy supervision. The boys' locker room is a duplicate and the same comments would apply.

The shop is larger than a regular classroom but small for a shop. As a result, there is inadequate storage for pupil projects and no separate dust-free space for painting, varnishing, or lacquering.

The art room is satisfactory. However, there are two teachers and only one art room. The elementary art teacher goes to classrooms while the secondary art teacher uses the special room. A second art room would be helpful.

The stage is used for music instruction. Adequate instrument storage appears to have been provided.

The gymnasium is large and appears excellent in every respect except for the lack of storage space for unused equipment. The original storage space labeled 005A and 005B is now used as classroom space. No allowance for this space has been given in calculating building capacity.

Other spaces in this area include 004 which is a very small classroom; 006 and 007 both are excellent kindergarten rooms and the temporary classroom wing.

The temporary classrooms are owned by the Modular Holding Company rather than by the school district. Rental is paid for their use. Spaces in temporary classrooms include the following: corrective reading room; elementary school library (contains carrels, reading area, carpeted section - good facility); science storage; curriculum materials center and office for teacher aide; six classrooms.

Based on an arbitrary division of classrooms into categories of elementary or secondary according to current use, the building capacity is calculated as follows:

Elementary	
3 Kindergarten classrooms @ 25	75
3 Classrooms (regular building) @ 20	60
6 Classrooms (regular building) @ 27	162
6 Classrooms (temporary) @ 27	162
Total Capacity	459

Current elementary enrollment (1968-69) is 463, which indicates that the elementary school is crowded.

Secondary	
8 Classrooms @ 27	216
3 Classrooms @ 20	60
1 Classroom @ 12	12
1 Science room @ 24	
1 Science room @ 16	40
1 Typing room @ 25	25
1 Home arts room @ 15	15
1 Shop @ 15	15
1 Art room @ 25	25
1 Music room @ 35	35
* 1 Gymnasium @ 35	35
Total No. of Students	478
Capacity at 80 Per Cent Utilization	382

Current secondary enrollment (1968-69) is 424, which indicates that the secondary school is crowded too.

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* Used part-time by the elementary school.

III

THE EDUCATIONAL PROGRAM AND SCHOOL FACILITIES

The consultants found the school buildings in the five districts deficient in a number of respects (see previous chapter). The buildings tend to limit needed development and change in the educational program. Discussions with the school administrators supported this finding. In order to meet the needs of boys and girls now and in the future, these deficiencies should be corrected as soon as possible.

As in other schools across the nation, the area schools must look forward to continued improvements in instructional techniques. The results of research have encouraged educators to look toward changes in several aspects of the school program which are affected by school facilities.

If the goals of education were defined as simply requiring pupils to remember those aspects of knowledge selected by the teacher for lecture and study, then the older type of school building would be adequate for instruction. Although such a program was satisfactory early in the century, it is not adequate today.

Educational Change and Development

Our society must find the means to cope with the many complex problems that face it, including those related to (1) the rapid growth and mobility of population, (2) the ills in our social-economic environment, (3) the accelerated development of automation, technology, and new knowledge, and (4) the stress of international tensions.

Furthermore, our society is ever changing. At no time in our history have our lives, institutions, and entire society been so completely affected by change. The rate of change shows no evidence of slowing down in the next decade, but rather there are many indices that point to accelerated change. One of the most profound problems of social policy confronting our country is how to modify and expand our educational system to meet the challenges arising out of rapidly changing society.

The whole concept of education and the school is changing. The isolation of the school from other community agencies and educational activities is diminishing. The task of the school is being extended beyond traditional academic and vocational objectives. The public is demanding that educational programs and services be extended and improved so that an appropriate and a quality education may be guaranteed to all students who seek it. The limits of public responsibility are being pushed downward to ages three and four and upward through the first two years beyond high school. Recent research in education indicates that a considerable portion of a child's ability to learn is developed very early in life. For example, favorable or unfavorable environment may affect IQ by an average of 2.5 per cent a year in the first four years of life. But between the ages of 8 and 17, the average would be only 0.4 per cent per year. An analysis of vocabulary development and reading achievement indicates that pupils in grade three have reached about half of their grade twelve achievement levels. Rapid expansion of opportunities for continuing education of adults adds still another dimension to the dynamic development of education. Thus, the nation's schools are charged with the responsibility of providing for greatly increased proportions of our population, for more years of schooling, and at far higher levels of skill, knowledge, and understanding.

Tomorrow's schools will be quite different schools from those that function today. Boards of education, administrators, and other professional personnel must recognize the challenge of the times and assume the responsibilities that they must share to effect the necessary changes and to promote needed innovations that will guarantee a greatly improved education for all children and youth in a particular school system. These new dimensions that are requisites of a quality educational program surely include the following:

1. New and improved institutional arrangements for teaching and learning that include programs for large-group instruction, small-group discussion, and independent study

2. Other institutional arrangements to facilitate improved conditions for learning that provide for flexible use of time, team teaching, use of teacher assistants, individualized pupil programming, and diversity of space facilities

3. Greatly improved curriculum, including marked increase in total course offerings and revisions in and additions to present offerings

4. Increased provisions for individual differences in instructional methods and materials

5. Marked increase in the effective utilization of new technological aids to instruction

6. Development and use of new and improved evaluation procedures and instruments

7. Expansion in the types of guidance services and their effectiveness

8. Expansion and improvement of auxiliary services in library and health

9. New and more functional physical facilities

10. Improved and more comprehensive programs of student activities

Individualization of Instruction

The basic thrust of individualizing instruction is to treat each student as a unique person with unique background, experience, abilities, and educational needs. This may be contrasted with prevalent class groupings in which teachers teach at the presumed middle range of backgrounds, experiences, abilities, and educational needs. While still sharing certain common experiences with other pupils, the pupil in individualized instruction undergoes a larger proportion of unique educational experiences than does his counterpart in the conventional class.

The individualized program may be interpreted in various ways. Some of these ways include the following.

1. Independent study - a greater proportion of school time spent in studies under the pupil's own control as an individual rather than as a member of a class. Fewer scheduled class meetings.

2. Ungraded approaches - the opportunity to progress on a differentiated subject basis as fast as one's ability and interest will permit. In turn, this often leads to -

3. The achievement-centered school - where performance in the instructional area is the crucial factor rather than the time required to study it. Where, for example, the degree of competency in algebra is more significant than the fact that it was studied for one year. In turn, this often leads to revised systems of reporting progress (report cards), for the criterion is no longer competency measured against what might be learned by an arbitrary competency level. This type of program also tends to support the position of Bloom,* who contends that the grade of "A" as an index of mastery of a subject can, under appropriate conditions, be achieved by up to 95 per cent of all students. Some students may learn in a fraction of a year, while others may require several years for this level of competency. Of course, whether or not mastery learning is worth several years of effort may be questionable, depending upon the goals and other abilities of the learner.

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* Benjamin S. Bloom, Learning for Mastery, Center for the Study of Evaluation of Instructional Programs, University of California, Los Angeles.

4. Emphasis on the importance of the library-resource center

5. Another aspect of individualized approaches is the increased use of multi-media aids to supplement teacher instruction.

6. Another aspect of this approach to instruction is the altered relationship of pupil and teacher. The teacher spends less time telling and more time supporting with advice and encouragement. The teacher's role as a disseminator of facts diminishes as facts are learned using other sources.

7. Since the teacher's role is subject to considerable change, reeducation of a considerable portion of the teaching staff is required. This also would supplement efforts toward inservice education.

8. The content of instruction should be appropriate to the learner's background, maturity, and interests. This implies a growing reliance upon ample library and multi-media materials.

The Library

Knowledge has expanded at such a tremendous rate that it is no longer possible to contain the essential information in neat packages for memorization. Instead, the school program must emphasize learning how to learn and provide for extensive exploration of facts and information beyond the scope of a textbook or sets of textbooks. The emerging curriculum requires increasing dependence upon multi-media library resources at all levels of instruction. So the library of the modern school is viewed not as a place where books are stored and "checked out," but where materials are studied during the school day as an extension of classroom instruction.

The concept of the library also has been expanded to include all materials for communicating information not housed in the classroom. As a result, modern libraries have tapes, films, charts, recordings, and other audiovisual aids to instruction which are catalogued and made available to the student. Some of the larger, better equipped school

libraries are making information available to pupils in switch-selected information retrieval systems. All of this increasing complexity results in a need for the constant availability of people familiar with the library to instruct and aid pupils.

The implication for the future, then, is that libraries need to have space for a wide variety of resources, including books and audiovisual materials. Although the American Library Association recommends a minimum of 10 volumes per student, between 15 and 20 volumes per student might be a more realistic figure for the type of educational program described. The American Library Association's recommendation indicates that even the smallest elementary schools should have libraries of 6,000 to 10,000 volumes. Providing a greater number of volumes per student is particularly significant at the secondary level, where the reading abilities and interests of pupils are divergent. Enough space should be provided to accommodate pupils who need to study in the library. The American Library Association calls for seating for 10 per cent of the total school enrollment. While once a goal, this must be considered an absolute minimum today. Seating is required for class instruction, for informal reading, for general reading, and for study. The elementary school library should have space for one or two classes to receive instruction in library usage, depending upon the size of the school. Also, there should be space where pupils of the primary-level age may have materials read to them - an attractive space so that pupils may gain an attitude that the library is a pleasant place where interesting materials are available and that reading is the key for unlocking the door to these new experiences. In addition, the elementary library requires spaces for individual study for pupils who are excused from other class activities by their teachers for individual study and investigation.

At the secondary level, an informal reading area with light reading and magazines attracts students who wish to read for pleasure and relaxation. The general reading area serves pupils who wish to read, do research, and study. Individual study carrels provide space for pupils to use electronic aids for self-instruction, to read, and to write in relative privacy without visual or acoustical interruptions.

The kind of library described also could have work and study space for teachers so that pupils could have help as needed in working on projects and assignments.

Large and Small Group Rooms

If each pupil is to be allowed to advance at his own best pace, the concept of promotion and gradedness in the schools becomes unimportant. The emphasis will be on continuous progress under the direction of a teacher or group of teachers. To reach this degree of flexibility requires elementary schools with adequate pupil enrollments.

If pupils are to be given individual attention by the teacher so that they may progress in their individualized programs, it is necessary to utilize space and staff so as to free teachers for individual or small group work without undue additions to staff numbers. This calls for the occasional regrouping of pupils into large groups so that teachers may be freed for small group work. The implications for school buildings are the necessity for space where two or three classes may be assembled at once for lecture, for testing, or for audiovisual presentations. It is not absolutely necessary to create small spaces, as the spaces vacated by classes going into large-group activities can then serve for small groups. However, if the large-group space is developed by opening up regular spaces - for example, through the use of flexible partitions - then additional small group rooms would be needed.

Prekindergarten Programs

In New York State, there is a growing interest in the possibilities of prekindergarten programs. Experiments in large cities have encouraged further exploration of special prekindergarten programs tor all children, varied as to needs. The possibility of such programs should not be ignored in planning the future building requirements in the area.

Special Purpose Rooms

If all pupils are to be given opportunity to express themselves in a variety of acceptable forms, space is needed in which to carry out art and music instruction. At the elementary level, both activities could be conducted in regular classrooms. Art requires ample storage for supplies, provisions for cleanup, and space for storage of pupils' projects. Large elementary schools ordinarily find it desirable to set aside a special room for this purpose. Music provides pleasure for the participants and an acoustical problem for nearby classes. Again, larger elementary schools prefer to provide a space which can be acoustically isolated from the remainder of the school; multipurpose rooms also are sometimes used for this purpose.

Instruction in science in the elementary school is growing in importance. Each pupil should have opportunities for individual investigation and experimentation each year. For example, the minimum requirements in the elementary curriculum in Pennsylvania require: "A planned program in science, including laboratory-type experiences . . . . taught in each year of the elementary school."

The elementary school also requires space for physical education. In general, younger pupils need less exercise space than older children. Good practice requires a minimum of 150 minutes of health or physical education instruction weekly.

At the secondary level, special spaces are needed to permit further exploration of individual interests. These spaces should include provision for opportunities for self-expression or prevocational training in home and industrial arts. Spaces also have to be equipped with the machines used in modern business offices. For some pupils, vocational education is appropriate; this, too, requires specialized facilities.

At all school levels, there is a need for adequate conference and planning space for use by groups of teachers, by teachers and pupils, and by teachers and parents. As programs and progress become more individualized, this need will grow. The increasing use of specialists in speech and remedial reading and possible expansion of the functions of counselors and school psychologists indicate that most school buildings will require increased amounts of office and conference space.

IV

SCHOOL DISTRICT REORGANIZATION

A number of problems have prompted recent changes and innovations in the organizational structure of school systems and in the operational relationships among various school units within the school district. These areas of concern include:

- the problem of increased enrollment
- the scarcity of teachers in many subjects
- the need for improvements in curricula and services
- financial support
- the pressure for economy and efficiency
- the new relations between school and community
- the trend toward larger schools
- shortcomings of many traditional organizational patterns

Increasingly, educators and laymen are asking, "How shall our schools be organized to ensure a greatly improved educational system that can more adequately meet the challenge of our ever-changing society?"

It is essential that a functional and dynamic concept of organization guide our planning and action as we seek to improve our schools. This concept emphasizes the fact that the structure of education is a facilitating agency through which the purposes of the school may be more effectively achieved. Organization is a means and not an end in

the achievement ot the objectives ot the school system. The worth of all organizational forms and practices should be appraised on their contributions to the fulfillment of the aims of education.

There is no simple rule of thumb to be applied in reaching a decision on any organizational design foı a school system or a combination of school systems that may want to effect a new structure. Consideration should be given to:

1. The present type of organization and available resources and facilities in the community or communities
2. The size and character of the community or communities
3. Limitations to equality of educational opportunity and services
4. Research findings regarding child development and learning theory
5. Receptiveness to innovations in instructional and learning practices
6. Effective utilization of professional and auxiliary personnal

There is no valid reason for accepting any present type of organization merely because it is commonly practiced or has proved reasonably successful in certain communities. The best decision in a particular situation may be expected to result if the type of organization is determined on a basis of its optimal contribution to the realization of the educational goals of the particular community or communities. The most desirable organizational structure for education in any particular school system is that arrangement which will maximize the opportunities tor essential changes and innovations in teaching and learning.

School administration is constantly faced with questions ot size relationships. There are concerns about class sizes, rooms, attendance areas, administrative units,

and so forth. There is a significant trend toward fewer and larger school-district units. For example, the total number of school districts has decreased from 127,649 in 1932 to 28,814 in 1965. The evidence seems to indicate (1) that extremes in minimum sizes are uneconomical and inefficient and do not foster effective educational programs; and (2) that maximums in size do not necessarily guarantee economic efficiency and effective educational programs. Imaginative and novel innovations must be instituted to make the larger educational administrative units effective and efficient. This means that administration in the larger district organization must successfully resolve the problems concerned with delegation, communication, coordination, and many other administrative concerns.

Why a K-12 District?

Continuity is an important factor in a good educational program. This is difficult or impossible when students attend high school outside the district. When in addition, they are sent to another district on a tuition basis, local voters have no control over the educational program offered. At the same time, the resources of the sending district are not available for bonding purposes in support of the entire school program.

The Importance of Size

The one-room schoolhouse is outmoded. Today's standards indicate that an elementary school should have, as an absolute minimum, one teacher per grade; two or three classes per grade are even better. Size of an elementary school is, in fact, limited only by the appeal of a "neighborhood school" and the undesirability of

having small children travel too long on busses. Study after study has shown that students from the smallest schools have a lower rate of achievement and less mastery of basic skills than those from large schools. And a small school has difficulty in providing the specialists needed to meet today's education demands - librarians, nurses, art and music teachers, specialists in remedial reading and speech.

Size is even more important in a high school. A satisfactory program requires a broad range of high school subjects, including meaningful vocational training for those who will not continue beyond grade twelve, a sufficiently challenging program for the intellectually gifted, and special courses geared to the needs of students with various handicaps. Such a program requires not only trained personnel but also varied and, frequently, expensive equipment. A small high school can offer only a part of this and only at unnecessarily high cost per pupil. High school students can, however, travel farther to school than can children in elementary grades, so one high school can serve a larger area than may be desirable for an elementary school.

Methods of Reorganization

The problem of school district reorganization has been approached by different states in different ways. Many of these are discussed in detail by C. O. Fitzwater in School District Reorganization - Policies and Procedures[1] and by the AASA Commission on School District Reorganization in School District Reorganization.[2] The AASA Commission has classified existing types of legislation as mandatory, permissive, and semi-permissive.

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1 U.S. Department of Health, Education, and Welfare (Washington, D.C., 1957).
2 American Association of School Administrators (Washington, D.C., 1958).

Mandatory legislation involves district reorganization by the legislature or by delegation of authority to state and county agencies, without referral to the voters. In some states, all local school districts have been abolished and replaced by county units; in many states, legislation has forced the abolition of individual districts falling below stipulated limits of enrollment or failing to operate a school for a certain period of time. In South Carolina, the number of school districts was reduced from 1,220 to 107 as the result of legislation in 1951 which empowered county boards of education to consolidate schools and school districts in the interest of better education. If the county boards did not act to reorganize according to state-approved plans, state funds for building were withheld.

Some attempts at mandatory reorganization have been unsatisfactory because of the difficulty of creating a statute to fit all situations. Where a plan is imposed by the state without due consideration of local problems, public opposition may be strong. Legislation which delegates authority to both state and county agencies, and requires them to act, is generally considered more desirable.

Permissive legislation may do no more than outline procedures for voluntary consolidation. One defect of this method is that it involves no overall planning; new boundary lines may be drawn in such a way that reorganization of the remaining districts is difficult or impossible. Where no standards have been set up, new districts may be formed which are only slightly better than the old ones. Voluntary reorganization gives the greatest freedom to the individual districts; it also leads frequently to local inaction.

New York's permissive legislation differs from that of most other states by having the commissioner of education lay out the proposed new district, although only after he has received petitions indicating a widespread local support for the change. In New York, also, there are financial incentives for reorganization.

Opposition to Reorganization

Where the final plans for reorganization must be submitted to the local voters, defeat of even the most desirable plan is possible. Elimination of existing laws which may hamper reorganization, use of state aid as an incentive, and full consideration of local preferences have helped to overcome opposition in many cases.

Some states, in effect, subsidize small districts, thus making consolidation financially unattractive. Such support is considered undesirable except in cases where, for reasons of geography, a small district must be maintained. Laws governing voting procedures may also make approval difficult: in many states a majority of the voters in each district involved must approve consolidation, and a single district can block the proposed plan. Other states, like New York, require approval by a majority in the proposed new district as a whole. This is easier to obtain.

Local opposition is frequently based on financial considerations. Where one district has a large bonded indebtedness, other districts may not wish to assume this liability, even when they also acquire the assets. In some states, t

district which has incurred the debt remains responsible for it; in other states, this is a matter of local option. In New York, all of the bonded indebtedness of the respective districts is assumed by the centralized district.

Voters in a wealthy district may object to joining with a poorer district for fear of having to pay an undue share of costs of the new district, while the poorer district may fear increased taxes to meet higher standards. The prospect of state aid may well dissolve these fears, particularly if the state, as does New York, grants funds for new construction and provides increased operating aid to reorganized districts.

Other local fears, tensions, and rivalries, or simple aversion to change, may defeat any proposal for reorganization. Here, effective leadership in presenting the proposal and stressing its advantages may help.

The State Education Department in New York made a study of "Recurring Reasons for Resistance to Centralization."[3] The following is a direct quotation:

"The thirteen recurring reasons or factors identified in district resistance to centralization are presented below, in the order of their frequency of occurrence in centralization campaigns. The tabulation is based on data from

[3] William C. Sayres, Recurring Reasons for Resistance to Centralization, Division of Research, The State Education Department, The University of the State of New York, Albany, April 1960.

81 of a total of 97 centralizations between July 1, 1950 and June 30, 1958, since the coverage on these was comparable in scope and depth. The number of centalizati n campaigns in which each reason was cited is included in parentheses.

1. Concern with prospect of increased costs (76)

   Opposition to potential tax increases

2. Prospective loss of local control (44)

   Concern that local voice in school affairs will be considerably weakened by centralization

3. Transportation issue (32)

   Parental dissatisfaction with prospective necessity of conveying pupils by bus over comparatively long distances

4. Preference for alternative centralization plan (32)

   Local preference for centralization arrangements other than those indicated by the Master Plan

5. Resistance to change (inertia) (27)

   Generalized opposition to altering the status quo

6. Conflicts among prospective constituent districts (25)

   Friction and strained relations among adjoining districts

7. Conflicts within districts: internal controversy (25)

School-community friction, political schisms, other divisive elements that make it difficult to reach local agreement on centralization

8. Local pride (22)

Civic pride, and a desire to preserve community distinctiveness

9. Preference for relatively small schools (18)

Belief that larger schools resulting from centralization will be less able to give personal attention to pupils

10. Lack of clear understanding of centralization (17)

Confusion over conflicting claims by proponents and opponents; uncertainty as to just what centralization entails

11. Influence of opposition groups (12)

Intervention by organized groups actively committed against centralization

12. Vested interests (10)

Special opposition by those whose status would be impaired by centralization, e.g., members of a school board who stand to lose their positions if district centralizes

13. Preference for relatively small population center (5)

Distrust of community expansion associated with centralization: preference for small community life."

It is clear from this analysis and others that citizen resistance to changing school system boundaries is largely emotional.

To effect such a change requires that citizens consider the facts carefully and weigh the proposed advantages and disadvantages to the children.

Facts from a Recent New Jersey Study

There are very few factual analyses of the advantages and disadvantages of school district reorganization. The only study that has been done on a statewide basis in recent years was completed for New Jersey by Engelhardt, Engelhardt and Leggett, Inc.[4]

In this study for New Jersey many measures of the quality of the educational process were related to size, wealth, cost per pupil, and other pertinent factors to determine significant correlations. In all, 253 correlations were analyzed.

For each district, the following factors were considered:

Number of Pupils

1. Number of pupils enrolled in K-12 in 1965-66
2. Number of pupils enrolled in grade 6 in 1965-66
3. Number of pupils enrolled in grade 10 in 1965-66

[4] Pilot Study of School District Reorganization, State of New Jersey, January 1968.

Geography

4. Area of school district in square miles

5. Density of district - pupils per square mile - for districts with K-12

Buildings

6. Total number of school buildings

Finance

7. Equalized valuation per pupil in resident ADE in 1965-66

8. School debt as a per cent of equalized valuation, 1965-66

9. Day school cost per pupil, total average enrollment, 1965-66

10. Real property school tax rates - equalized - 1966

Salaries

11. Median teachers' salaries, 1966-67

Staff

12. Professional staff per 1,000 weighted pupils, 1965-66

13. Average years of experience of teaching staff

14. Number of central office staff, including superintendent, assistant superintendent, secretaries, business manager, supervisors, and other instructional staff, 1965-66

15. Number of pupils per central office staff member, 1965-66

16. Number of pupils per full-time teacher, 1965-66

17. Per cent of teaching staff with master's degree or better

High Schools

18. Largest number of selected practices employed in one high school (see list following)

19. Largest number of courses offered in Grades 9-12 in one high school, 1966-67

20. Type of high school (grade organization)

21. High school enrollment October 1, 1966

22. Number of full-time guidance personnel in high school, 1966-67

23. Number of other full-time special services personnel in high school - includes remedial reading, speech correction, librarian, school nurse, psychologist, social worker, 1966-67

Selected Practices in Secondary Schools

Curriculum Area

1. Advanced placement programs
2. BSCS biology
3. Carnegie Institute of Technology project for social studies
4. CBA or CHEM study chemistry
5. Computer instruction course(s)
6. Cooperative work experience program
7. Data processing course(s)
8. Earth Science Curriculum Project (ESCP)
9. High School Geography Project (HSGP)
10. Humanities course/program
11. Introduction to vocations course
12. IPS Introductory Physical Science
13. Linguistics course(s)
14. Outdoor education program
15. PSSC physics
16. Sex education course
17. SMSG or UICSM mathematics
18. SRSS Sociological Resources for Secondary School
19. TESOL (teaching English as a second language)

Selected Practices (cont.)

20. Time, space, and matter (Princeton project)

21. Work experience program

Technological Area

22. Calculators in mathematics instruction

23. Closed circuit TV

24. Computerized instruction

25. Computers in mathematics instruction

26. Data processing equipment

27. Data retrieval used in instruction

28. Educational TV subscription

29. Electronic language laboratory (Mobile lab) or permanent language laboratory

30. Mathematics laboratory

31. Overhead transparency development

32. Programmed instruction

33. Reading laboratory

34. Video tape equipment

Organizational and Miscellaneous

35. Algebra I taught in 2 years or Algebra I and II taught in 3 years

36. Block-of-time

37. Case study approach to instruction in social studies

38. Feature films used in instruction

39. Field trips used in instruction

40. Follow-up data of graduates

41. Gaming

42. Independent study

43. Instructional materials center

44. Little theater

45. Paperbacks used in instruction

46. Professional artists (dance, music, theater, etc.) used in instruction

47. Released teacher time for curriculum development

48. Six-year sequence of a foreign language

49. Student-exchange - domestic or foreign

50. Study carrels

51. Summer curriculum work

52. Team teaching

53. Weekend use of school library

54. Exploration of world of work integrated in the curriculum

Much of the data used in this study are for the 1965-66 school year. The material is, of course, out of date but has provided a base on which it has been possible to make analyses.

As an example of the outcome of this analysis, it was determined that there exists a high correlation between enrollment in high school and diversification of curriculum. Sixty-three per cent of the districts had high schools offering 80 or more courses. Of these districts, 87 per cent had 250 or more students per grade. There were 97 districts with fewer than 250 students in grade 10; estimates of enrollments for the year 1980 indicate that at least 53 high school districts will not reach this enrollment level. It should be noted that the cost per pupil is no greater for units with the broader curriculum than for those with limited offerings. In other words, diversification of curriculum is a matter of size, not cost.

Size of School District

Research data from other sources are not conclusive. Many opinions have been expressed as to what makes a good school district. The facts brought out in this study are probably as objective as any published and do not agree in all cases with the opinions expressed by others.

Conant,[5] for example, recommends a minimum of 100 in the graduating class. This study of New Jersey school districts indicates that 250 is a more desirable minimum, for the following reasons:

1. Two hundred fifty students in grade ten offered the possibility of 80 courses or more at no increase in cost.

2. The number of course offerings dropped significantly as enrollments fell below 250 pupils per grade.

3. The number of central office personnel was significantly greater when enrollments exceeded 250 pupils per grade.

4. Up to 750 pupils, the percentage of teaching staff with master's degrees increased as grade enrollment increased.

5. The number of selected practices increased significantly in schools with 350 or more pupils in grade 10.

6. The number of special services personnel increased as enrollments increased.

The National Commission of School District Reorganization recommended in 1948 local school districts of at least 10,000 students. A study made in 1965 by the George Peabody College for Teachers recommends a base of at least 10,000 with an optimum size of 15,000-20,000 students.

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5 James B. Conant, The American High School Today, McGraw-Hill Book Company, Inc., New York, 1959.

Characteristics of Superior School Systems[6]

Excellence in a school system is dependent upon many factors, not all of them tangible, and not all of equal importance.

For an independent opinion on excellence in school systems, New Jersey county superintendents were asked to name the two systems in their counties which they felt were providing the finest educational programs. Regional high school districts were eliminated from consideration. It can be assumed that the school systems named represent some, though not all, of the best in New Jersey. These systems were studied to determine what qualities they had in common and how they differed from the average.

Size K-12

Of the 27 superior school systems serving K-12, none had fewer than 1,000 students and only two had fewer than 2,000. Although 61 per cent of the K-12 systems in New Jersey had less than 4,000 students in 1965-66, only one-third of the superior school systems were in this size range. Forty per cent of the superior school systems had over 7,000 students, although only 22 per cent of the K-12 systems in the State are this size. Even in the range of 11,000 or more, where great size might be expected to present problems in achieving excellence, the percentage of superior school systems was somewhat higher than the percentage of systems that size in the State as a whole. The median for the 27 districts was in the 4,000 to 6,999 range.

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[6] Engelhardt, Engelhardt and Leggett, Inc., op. cit.

It appears that the possibilities for excellence increase with size. In school districts with fewer than 4,000 students in K-12, excellence is less common, though not unknown.

Size - High School Grades of Superior Schools

In the high school, adequate size appears to be of even greater importance for excellence than at the elementary school level. The median enrollment in grade ten in the superior school systems was in the 350-499 range indicating an enrollment in grades nine to twelve of approximately 1,400 to 2,000 students. Forty-four per cent of the superior schools had over 500 students in grade ten.

Finance of Superior Schools

A study of these superior school districts would seem to indicate that excellence is no more expensive than mediocrity. The median cost per pupil for these districts was the same as for the State as a whole. Their median tax rate was the same as for the State as a whole.

Only when we consider school debt as a per cent of equalized valuation is there a significant variation: for 47 per cent of New Jersey districts, the school debt represents less than 2 per cent of valuation; only 17 per cent of the superior districts have debts so small. On the other hand, 23 per cent of the superior districts have debts in excess of 5 per cent, while only 11 per cent of New Jersey districts have debts so large.

Teaching Staff in Superior Schools

The quality of a school's program is clearly related to the quality of its teachers. Although this cannot be measured objectively, some assumptions can be made. Experience and professional training help the teacher do a better job. Higher salaries make it easier for a district to attract and hold good teachers. Small classes make it possible for the teacher to devote more time to individuals.

In the area of teaching experience, the superior districts do not vary significantly from the norm. In the State as a whole, the average teaching experience of the staff of the median district is 9 to 10 years; in the superior districts, it is 10 to 11 years. The superior districts do, however, have a higher percentage of teachers with advanced degrees; in the median of the superior districts, 25 to 29 per cent of the staff have master's degrees or better, while the median for all New Jersey districts is 15 to 19 per cent. Only a fourth of the superior districts have staffs on which less than 20 per cent of the teachers have advanced degrees; over half of all New Jersey districts are in this category.

The median teachers' salaries in these districts are slightly higher than in the State as a whole.

The pupil-teacher ratio is also slightly better in the superior districts: only 21 per cent of the superior districts averaged 25 or more pupils per teacher, in contrast to 33 per cent in the State.

High School Program

What are the characteristics of the high school in the superior district? Regardless of grade organization, it tends to have a larger enrollment. Nineteen per cent of the superior districts had high school enrollments of 2,000 or more, while only 10 per cent of all districts in the State had enrollments of that size. The median enrollment in high schools in the superior districts was 1,250 to 1,499; in the State, 1,000 to 1,249.

Clearly related to size of enrollment is the number of guidance counselors; it is not surprising that the median for the superior districts was slightly higher than for the State. For other special services personnel - such as remedial reading teachers, librarians, nurses - the median was the same as for the State, but 30 per cent of the superior districts had six or more such personnel while only 10 per cent of New Jersey districts had high schools with so many.

These high schools also offer more different courses in grades nine to twelve, indicating greater ability to meet the differing needs of students. Only 11 per cent of the high schools in superior districts had fewer than 80 courses, while 38 per cent of all New Jersey districts serving high school grades had no high school offering this many. The median for the State was 80 to 89; for the superior districts, 90 to 99.

Similarly, high schools in the superior districts are more adaptable to change, more willing or able to experiment with new methods and techniques in teaching.

On the study of selected practices made by the Division of Secondary Education, 22 per cent of all high schools reporting had 20 or more of these practices, while 39 per cent of high schools in superior districts had 20 or more. The median for all high schools was 12 to 14; for high schools in superior districts, it was 15 to 19.

V

FINANCIAL CONSIDERATIONS

Four questions were posed in analyzing the costs of the proposed reorganization of the five school districts of Broadalbin, Edinburg, Mayfield, Northville, and Perth.

1. What will be the costs to the individual districts if there is no reorganization and if the status quo is maintained?

2. What will be the costs to the individual districts to improve their existing schools and educational programs (again without reorganization)?

3. What will it cost to centralize and make no changes?

4. What will it cost to centralize and to improve the school facilities and educational program?

1. What will be the costs to the individual districts if there is no reorganization and if the status quo is maintained?

It can safely be said on the basis of past experience in the districts in question and of experience throughout New York State and the nation that educational costs per pupil will continue to rise. Inflation, the rising costs of services and materials, the investment in increased and improved educational services and materials will all contribute to rising costs. State aid will also rise, but experience shows that there will be some lag between rising costs and increased state aid to the local district. This means that the local tax rate will continue to climb.

Table 12 shows the approved operating expenditures were WADA (Weighted Average Daily Attendance) for each of the five districts. Figures for 1965-66 through 1967-68 are actual; figures for 1968-69 through 1973-74 are estimated. Estimates are based on a 7 per cent increase each year. With one exception, expenditures increased between 1965-66 and 1966-67 and between 1966-67 and 1967-68.

Approved operating expenditures are used rather than total expenditures, since the former more truly measure what a district is doing educationally. Approved operating expenditures include expenditures for salaries, teaching materials and textbooks, administration, operation, maintenance, and fixed charges. Excluded basically are transportation and debt service. Approved operating expenditures are also more comparable district to district. The per pupil figure (WADA) is used because this figure also is a more comparable one.

Total expenditures per WADA in each district have also been increasing, and it is expected that this increase will continue.

Table 12

APPROVED OPERATING EXPENDITURES PER WADA, ACTUAL AND ESTIMATED
Broadalbin, Edinburg, Mayfield, Northville, Perth, New York
1965-66 through 1973-74

Year	Broadalbin	Edinburg	Mayfield	Northville	Perth	Average
Actual						
1965-66	$ 519	$ 524	$ 538	$ 581	$ 582	$ 549
1966-67	562	691	581	658	648	628
1967-68	645	670	610	695	714	667
Estimated*						
1968-69	690	717	653	744	764	714
1969-70	738	767	699	796	817	764
1970-71	790	821	748	852	874	817
1971-72	845	878	800	912	935	874
1972-73	904	939	856	976	1,000	935
1973-74	967	1,005	916	1,044	1,070	1,000

Source: Figures based on data from state aid forms SA-124 and SA-122.
* Estimated at a 7 per cent increase per year.

Tax rates have also been increasing in each district. Table 13 shows the tax rates for each district. Tax rates are expressed in terms of actual or true valuation of all real property taxable for public school purposes. It is expected that the tax rates will continue to increase in the next few years.

Table 13
TAX RATES PER $1,000 OF ACTUAL VALUATION
Broadalbin, Edinburg, Mayfield, Northville, and Perth, New York
1966-67 through 1968-69

District	1966-67	1967-68	1968-69
Broadalbin	$ 13.64	$ 13.98	$ 14.36
Edinburg	(not available)	13.41	14.66
Mayfield	10.65	11.58	12.72
Northville	13.72	14.42	16.30
Perth	11.19	11.72	12.14

Briefly, then, whether the districts reorganize or not, the educational costs will continue to increase. In order to meet these rising costs, state aid will also rise, but also will the local tax rate.

Revenues

Table 14 shows the percentages of revenue from local, state, and federal sources for the school year 1968-69.

Table 14
TOWNS' PERCENTAGE OF REVENUE
FROM LOCAL, STATE, AND FEDERAL SOURCES
1968-69

	Local			State							
District	Property Tax	Tuition	Misc.*	Basic Formula	Text-books	BOCES	Other	Total	Federal	Balance	Total**
Broadalbin	20.67	4.56	0.29	67.16	-	1.55	-	68.71	.09	5.67	99.99
Mayfield	17.55	3.14	0.20	73.27	.63	1.18	-	75.08	.78	3.25	100.00
Northville	32.14	4.86	0.33	54.50	.19	3.20	-	57.89	-	4.74	99.96
Perth	9.49	8.04	1.51	72.86	.44	3.81	.25	77.36	.42	3.18	100.00
Edinburg	73.81	-	0.26	15.05	-	3.20	-	18.25	-	7.68	100.00

Source: School district budgets for 1968-69.
* Interest on deposits, admission fees, interest and penalties on taxes, fines.
** May not equal 100 per cent because of rounding.

State Aid

Except for Edinburg, state aid accounts for more than 50 per cent of the total revenues. Table 14 shows that in 1968-69 state aid under the basic formula accounts for 54.50 to 73.27 per cent of the total revenues for four of the districts. What does this mean? It means that as measured by taxable real property for the schools, these school districts are not wealthy and require a great deal of state aid to equalize educational opportunities.

Tuition

Tuition accounts for a part of the revenues for each of the districts except for Edinburg. A loss of tuition pupils would, of course, reduce or eliminate a source of revenue at the local level. Such a loss of tuition pupils from non-operating school districts is expected in Broadalbin, Mayfield, and Perth. For all three districts, this loss will be financially significant. In 1968-69, tuition accounts for 4.56 per cent of the total revenues in Broadalbin, for 3.14 per cent in Mayfield, and for 8.04 per cent in Perth. It is especially significant for Perth, since the income from tuition is not much less than that from the local property tax.

Of course, the loss of the pupils may enable the districts to decrease staff and in this way reduce expenditures. Savings, if any, in this direction will, however, probably be minimal. The overall effect will be an increase in per pupil expenditure and in the local tax rate.

Loss of tuition revenues along with students to make up efficient class sizes and adequate numbers to make a broad curriculum possible might make centralization attractive to several of the districts.

Another Question to be Posed

Another question can be posed. What will happen to the individual districts if the status quo is maintained?

As enrollments increase in the districts over the next 10 years, existing facilities will become crowded. Unless immediate steps are taken to upgrade facilities, these will remain inadequate, both physically and educationally. Small enrollments will continue to limit the number of courses offered in the secondary schools. In general, as the years pass, the five districts will fall further and further behind educationally, despite the increased costs each year.

This leads to the second major question.

2. What will be the costs to the individual districts to improve their existing schools and educational programs (again without reorganization)?

There is no doubt in the minds of the consultants that facilities in the five school districts need both expansion and improvement. (See Chapter I on increasing enrollments and Chapters II and III on school building needs.) The districts should proceed as soon as possible to construct new facilities and improve the present ones.

The following figures are estimated costs for each individual district to improve and expand its existing school facilities. Estimates are based on enrollment and facility needs through 1973-74. See Chapters I and II respectively.

Broadalbin	$ 850,000
Edinburg	45,000
Mayfield	350,000
Northville	850,000
Perth	480,000
Total:	$2,575,000

The estimated cost for Broadalbin assumes that the 1920 section of the elementary school will no longer be used for instructional purposes. The Edinburg cost is specifically for a new and adequate library facility. Costs for Northville and Perth include the construction of an additional gymnasium. The costs assume retention of the temporary facilities.

Costs were calculated at $16 per square foot for renovation and at $31 per square foot for new construction.

In the light of current state policy, it is unlikely that the individual districts will receive state aid for any construction. At this time, it seems equally unlikely that the districts will build without state aid, for without it the local district will have to carry 100 per cent of the construction costs.

Table 15 shows the estimated annual cost and tax rate for each individual district to improve and expand its existing school facilities.

Yearly costs to the individual districts were calculated on the following basis:

Principal and interest at 4-1/2 per cent interest, for 15 years, equal payment debt service.

No state aid.

Tax rate computed on the basis of equalized property valuation for the year 1968.

Table 15
ESTIMATED ANNUAL COSTS AND TAX RATES FOR IMPROVEMENT AND EXPANSION OF EXISTING FACILITIES
Broadalbin, Edinburg, Mayfield, Northville, and Perth, New York

District	Debt Service Principal and Interest	Tax Rate/$1,000 True Valuation
Broadalbin	$ 79,144	$ 4.73
Edinburg	4,190	.52
Mayfield	32,589	1.85
Northville	79,144	5.11
Perth	44,693	5.61

These are, of course, additional tax rates.

Let's suppose that the individual districts elected to build and renovate without state aid. Facilities and educational programs could be much upgraded. Class sizes could be kept at or returned to 25 or under. However, enrollments at the secondary level would still be too small to allow for a broad comprehensive program.

3. What will it cost to centralize and make no changes?

Centralization will bring about a number of changes in organizational structure and in transportation routes, for instance. It should bring about more changes. "No changes" here simply means no construction and no renovation of building facilities. Children would continue to be educated in their present buildings.

Incentive Aid

In New York State there are various financial benefits that accrue from school centralization. Districts reorganizing after July 1, 1965 are eligible to receive additional building expenses aid and additional operating expenses aid.*

1. Incentive Building Expenses Aid - whenever a district reorganizes after July 1, 1965 in accordance with the State Plan as announced or reaffirmed by the Commissioner, and if the reorganization a) completes the State Plan and b) falls into one of the five categories described below, such reorganized district is entitled to additional building expenses aid amounting to 25% of the building expenses aid otherwise payable based on approved expenditures for debt service, or from budgetary appropriations, or from reserve funds for projects in which the general contracts were awarded after reorganization and prior to July 1, 1975, or within five years from the effective date of the reorganization, whichever is later.

   To be eligible for this additional aid the reorganization must include at least: two high school districts; or one high school district plus at least nine other districts, or two central school districts; or one high school district plus at least one district with more than eight teachers; or one city school district plus at least seven other districts.

   The incentive aid on such projects plus regular building aid may not exceed 95% of the approved expenditures for debt service plus the approved expenditure from budgetary appropriations or from reserve funds which are used to determine the regular building aid for the year in question for such projects.

* Source: Section 3602 of the N.Y.S. Education Law.

2. Incentive Operating Aid - whenever two or more districts reorganize after July 1, 1965 and before September 1, 1970, and such reorganization a) completes the State Plan as announced or reaffirmed, and b) falls into one of the five categories described above, the operating expense aid is increased by 10% not to exceed a total of 90% of the approved operating expenses or the $760 per pupil ceiling, whichever is the lesser, for a period of five years beginning with the first year of operation as a reorganized district. Thereafter, the additional aid is determined by reducing the 10% by one per cent for each year, beginning with the sixth year of operation as a reorganized district, and continuing until the additional operating aid is eliminated. For example, in the sixth year of operation 9% is used, in the seventh year 8% is used, etc.

The additional incentive aid is not subject to the tax rate check provided in the state aid formula computation and is not used in calculating growth or size correction aid. It is apportioned in addition to minimum save-harmless aid.

State Aid

In order to determine the benefits of centralization, the amounts of state aid to be received by the districts individually and the amounts that would be received if the districts were centralized in 1968-69 were compared. The figures used were from the State Aid Reports SA-122 and SA-124. (See Table 16). A number of assumptions have to be made: for instance, that transportation costs will remain approximately the same and that the total expenditures and operating costs will remain approximately the same. In any event, the general conclusion drawn by the consultants is that the amount of state aid flowing to the districts will be very much the same to the districts as a single entity or to the districts individually (added together).

Table 16
STATE AID COMPUTATIONS
Broadalbin, Edinburg, Mayfield, Northville, and Perth, New York

	Aid for 1968-69 Five Districts	Aid for 1968-69 Broadalbin, Perth	Aid for 1968-69 Edinburg, Mayfield Northville
Actual valuation	$62,233,307	$23,176,562	$39,056,745
RWADA*	3,766	1,731	2,035
Valuation per RWADA	$ 16,525	$ 13,389	$ 19,193
Aid Ratio	.732	.783	.688
Operating Aid			
Total Expenditures	$ 3,710,852	$ 1,813,209	$ 1,897,643
Total Deductions	$ 773,939	$ 320,152	$ 453,787
Allowable Operating Expenses	$ 2,936,913	$ 1,493,057	$ 1,443,856
WADA	4,458	2,209	2,249
x 760	$ 3,388,080	$ 1,678,840	$ 1,709,240
Aid Ratio	.732	.783	.688
Operating Aid	$ 2,149,820	$ 1,169,064	$ 993,373
Incentive Operating Aid	$ 214,982	$ 116,906	$ 99,337

Note: All numbers rounded.
* Resident weighted average daily attendance.

Table 16 (cont.)

	Aid for 1968-69 Five Districts	Aid for 1968-69 Broadalbin, Perth	Aid for 1968-69 Edinburg, Mayfield Northville
Size Correction			
Divide Operating Aid by	482.24	529.23	441.70
WADA	48.22	52.92	44.17
x by .10	$ 72,330	$ 79,380	$ 66,255
x 1,500			
Transportation Aid			
Aid	$ 165,472	$ 76,605	$ 88,867
Building Aid			
Net Approved Building Expenses	$ 202,997	$ 104,055	$ 98,942
Ratio	.732	.783	.688
Aid	$ 148,593	$ 81,475	$ 68,072

A total of $215,133.01 in size correction aid has been applied for in 1968-69 by the five individual districts. This is $142,803 more than the districts would receive consolidated. More than making up for this loss, however, is the incentive operating aid calculated to be $214,982.

The amount of operating aid received consolidated is very similar to that received by the districts individually.

The best that finance figures can show in a comparison of this kind is whether centralization is financially feasible. In this case, centralization is feasible - state aid received will remain about the same. What is lost in size correction aid is made up in incentive aid, at least for the next few years. The question of size correction aid and incentive aid needs to be examined very closely, however.

Surely, small districts hesitate to centralize when they lose a great deal in size correction aid. Incentive aid is not really incentive aid after all, but, to a great extent, a compensation for the loss of size correction aid.

It must further be remembered that incentive aid eventually disappears. The operating expense aid is increased by 10 per cent for a period of five years beginning with the first year of operation as a reorganized district. Thereafter, the additional aid is determined by reducing the 10 per cent by one per cent each year until the additional aid is eliminated; whereas size correction aid has no such disappearing act written into it. As a special aid for small and large districts, size correction can, of course, be revised or eliminated.

The State Master Plan* provides for two centralized districts.

1. Broadalbin and Perth combined
2. Mayfield and Northville combined (Edinburg now added)

Since 1958, the date of the Master Plan, state policy has changed to favor a single district combining the five districts. Among other things, a single district would allow for a larger high school and a more comprehensive educational program and

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* The New York State Education Department, Master Plan for School District Reorganization in New York State, Revised 1958.

should result in a more efficient operation. Whether the state would now approve the two districts as originally proposed is a large question. Based on what the consultants have been able to find out, it seems doubtful.

In any event, Table 16 compares state aid figures for the two districts as proposed. As in the case of the single district, no state aid is lost. In fact, in the case of the two districts, less size correction aid is lost.

Facilities

Under a single centralized district, with the present facilities, there will be available space for the 1973-74 enrollments, if the program remains unchanged and no improvements are made in special spaces - libraries, shops, home economics, etc. The facilities will just be sufficient in capacity. Capacity for the 1973-74 enrollments is made possible by the loss of tuition pupils in several of the districts and by the more efficient utilization of classroom space under centralization. It must be emphasized that this capacity depends on the continued use of some substandard facilities and the temporary classrooms. As has been pointed out in previous pages, many spaces are currently inadequate educationally and will become more so in the coming years.

To centralize and make no changes in building facilities would probably be deemed undesirable by the five school boards. The underlying assumption is made that centralization should bring about needed changes in school facilities and programs.

This brings us to the fourth question.

4. What will it cost to centralize and to improve the school facilities and educational program?

Much of what was said in response to the third question can be repeated here. It is the improvement of the school facilities with which we are chiefly concerned here.

If a new high school is constructed to house grades nine through twelve, with an enrollment of 1,200, then there will be ample space in each of the central schools to provide facilities to meet the needs described in the chapter on existing facilities. These needs may be briefly described as needs for increased enrollments and needs for improved and expanded educational spaces - larger libraries and classrooms, for instance.

Ample space is projected on the assumption that the temporary classroom space is retained. The boards of education may decide to replace these temporary facilities and build permanent ones.

An estimated $472,000 should cover the costs of renovation, conversion, and some new construction to make the existing facilities adequate for educational needs for kindergarten through grade eight.

Costs are based on $16 per square foot for renovation and on $31 per square foot for new construction.

The costs are distributed as follows:

Broadalbin	$ 146,000
Edinburg	45,000 (new library)
Mayfield	89,000
Northville	112,000
Perth	80,000
Total:	$ 472,000

Assuming that the state will share in this entire cost of $472,000 and an interest rate of 4-1/2 per cent over 15 years at equal payment debt service, the tax rate for the current year would be $.06 per $1,000 of actual valuation. For a house with a true valuation of $15,000, the tax would be $.90 per year for the above renovation and conversion.

A single senior high school for the reorganized district would need to house 1,200 students, grades nine through twelve. (See Table 9 for enrollment projections.)

Cost is computed in the following way:

1,200 students x 140 square feet per pupil = 168,000 square feet

At $31.00 per square foot, the cost is estimated at $5,208,000.

This cost includes construction, site development, fees, administration, fixed and movable equipment, and contingencies. The $31 figure does not include the cost of land acquisition - that is estimated separately.

The state will presently aid in these costs, at $3,045 per pupil, or at a total of $3,654,000. This is a percentage of 70.16 per cent that is aidable.

Summary of Costs

Based on current state aid figures:

Principal and interest (at 4-1/2 per cent interest, for 20 years, equal payment debt service)	$400,391
Allowable for Aid (70.16 per cent)	280,914
Aid Ratio	.732
Building Aid	205,629
Incentive Building Aid	51,407
Total Building Aid on Proposed Issue	257,036
Local Share	143,355
Tax Rate/$1,000	2.18

For a house with a true market value of $15,000 the tax would be $32.70 for the high school construction.

The tax rate for renovation and conversion plus that for the high school equals $2.24. This is considerably less than the tax rate would be in three districts if the districts were to improve their schools on an individual basis.

In addition, the taxpayers receive more for their educational dollar. Class sizes are equalized. The young people have a new high school to attend that can provide an up-to-date educational program and broad spectrum of courses.

The state aid is based on figures used this current year. In other words, the actual valuation used this year for state aid purposes is for the year 1966. The local tax rate is, however, based on 1968 figures for the five districts.

Of course, these figures are academic. The high school is not completed now. It is only contemplated. The figures do show what the costs would be if the school were finished now. It is assumed that property values will continue to rise and that the tax rate will be lower by the time the school would actually be constructed. Let's say that the aid ratio were to remain the same and that the local share was the same in 1974-75, but that the tax base had increased from what it was in 1968 - $65,810,880 to $76,310,880 - the tax rate per $1,000 would be about $1.88. This would mean that a house with a true market value of $15,000 would have a tax of $28.20 for the high school construction.

Acquisition of Land

It is recommended that for a senior high school a basic 30 acres is needed plus another acre for each 100-pupil capacity of the school. For a 1,200-pupil high school a minimum site of 42 acres should be acquired. This will provide adequate area for parking and athletic fields. Cost is estimated at $42,000.

Personnel Costs

There are probably savings in personnel costs incorporated in centralization and the building of a single centralized high school. No savings are calculated since it is hoped that such savings may be translated into reduced class sizes and in an enriched educational program, and in more specialized personnel.

(It is also anticipated that there will be some saving in central purchasing and storage.)

Teacher Salaries

Table 17 shows teacher salaries at various steps of the salary schedule for each of four of the five school districts for 1968-69.

Table 17
COMPARISON OF TEACHER SALARY SCHEDULES
Broadalbin, Mayfield, Northville, and Perth, New York
1968-69

School District	BA Step 1	BA Step 4	MA Step 10	Range
Broadalbin	$6,400	$7,225	$9,275	$6,400-10,000 in 13 steps + 2 steps at the 16th and 21st years for $11,400 at MA + 60
Mayfield	6,500	7,250	9,400	$6,500-10,400 in 13 steps and + 3 career increments at the 16th, 21st, and 26th steps for $11,900 at BA + 60
Northville	6,400	7,225	9,375	$6,400-10,500 in 13 steps + merit of $1,000 maximum at MA + 30
Perth	6,400	7,150	9,350	$6,400-11,050 in 14 steps + 3 steps between the 16th and 26th years for $11,950 at MA + 30

The fifth district, Edinburg, has no schedule, none being required for school districts with fewer than eight teachers. The minimum salary for 1968-69 is $6,000. The six teachers received salaries ranging from $6,300 to $9,000. The average salary is $7,150.

A comparison of the salary schedules reveals a great similarity. Therefore, no difficulty should be encountered in the adjustment to a single schedule for a centralized district.

Table 18 compares the average teachers' salaries in the five districts.

Except for Edinburg, average salaries are not too far apart.

Table 18
COMPARISON OF AVERAGE TEACHER SALARIES
Broadalbin, Edinburg, Mayfield, Northville, and Perth, New York
1968-69

School District	Average Elementary Salary	Average Secondary Salary	Average Elementary and Secondary Salary
Broadalbin	$8,818	$7,873	$8,318
Edinburg	7,150	-	7,150
Mayfield	8,180	9,091	8,642
Northville	7,535	8,443	8,068
Perth	8,945	8,216	8,523

Note: Salaries of administrators not included.

Transportation Costs

It is anticipated that transportation costs will increase to some extent, assuming that all students will be transported to a centralized high school. However, the state will share in 90 per cent of the allowable costs. Savings in supporting services - such as business services - and in an expected more efficient operation, supervision, and maintenance should absorb the additional transportation costs to the centralized district.

Two Centralized Districts

Costs for the two centralized districts each to build a high school for grades nine through twelve are not considered for several reasons. The consultants believe that the resulting high schools would be far too small (housing 500 to 600 pupils) to provide a broad comprehensive program. See Chapter IV of this report. The New York State Department of Education is speaking now in terms of high schools with a minimum of 1,000 to 1,200 students. The consultants also believe that a single senior high school is the best answer for the area in reference to existing facilities and educational needs.

VI

ANALYSIS AND RECOMMENDATIONS

Centralization of the Five Districts - Educationally Desirable

The real question that is raised in this study is: "Is it desirable educationally, is it the best step for the boys and girls of the five districts, for the five districts to centralize into a single unit, to improve existing schools, and to build a new high school?"

The consultants believe that centralization of the five districts into a single unit will provide the best organizational context for quality education.

The single centralized district will have an enrollment of some 4,000 pupils by 1972 in kindergarten through grade twelve. The New Jersey study pointed out that excellence in education is more common in school districts with more than 4,000 pupils than it is in school districts with fewer than 4,000 pupils. The superior high school is also a larger school, with at least 250 pupils per grade. The proposed high school would have some 300 pupils per grade. For one thing, there exists a high correlation between enrollment in high school and diversification of curriculum. Sixty-three per cent of the districts studied in New Jersey had high schools offering 80 or more courses. Of these districts, 87 per cent had 250 or more students per grade.[1] (See Chapter IV.)

[1] Engelhardt, Engelhardt and Leggett, Pilot Study of School District Reorganization, State of New Jersey, January 1968.

Other very real educational benefits have been noted by the consultants:

Space will be opened up in the existing facilities to allow for growth, for smaller class sizes, and for improved educational spaces such as libraries.

Class sizes can be equalized throughout the district.

The existing schools can be used for kindergarten through grade eight. These facilities can be utilized, with some conversion and renovation, to provide an educational program of quality at these levels.

The larger high school not only will allow for a greater number of courses to meet individual abilities, needs, and interests, but it also will expand the possibilities of ability-grouping.

The larger high school also allows pupils to come into contact with a greater number of other pupils and teachers.

The possibility of more innovation and of the use of multi-media is increased throughout the district.

Special services - art, music, physical education, etc. - can be expanded and utilized more efficiently.

The Kindergarten-through-Grade-Twelve District and Edinburg

When a local school board sends pupils to another school district on a tuition basis, it (the sending board) loses control over them and their educational program. There frequently will occur a lack of articulation between the sending and receiving schools. A continuous kindergarten-through-grade-twelve school district is much to be preferred.

Edinburg might do well to consider this point. As part of a centralized school district, kindergarten through grade twelve, its students would receive a continuous and articulated program. Its school board representative(s) would have a voice in the educational program and future of its pupils at all times.

At present, Edinburg sends its pupils in grades six through twelve to Northville on a tuition basis.

Centralization of the Five Districts - Financially Feasible

If centralization is educationally desirable, is it also financially feasible for the five districts of Broadalbin, Edinburg, Mayfield, Northville, and Perth? Can the districts afford to centralize (reorganize), improve their existing school facilities, and build a centralized high school plant for 1,200 pupils?

The consultants believe that centralization of the five districts is financially feasible and, in fact, financially desirable.

As was noted in previous pages, the tax rate for renovation and conversion of existing facilities in conjunction with the construction of a new high school for grades nine through twelve was $2.24 per $1,000 of actual valuation.[2] This figure is in terms of the 1968 actual property valuation and, of course, in terms of the cost estimates prepared by the consultants. It is assumed that this tax rate will decrease as the tax base increases.

It was also noted that the amount of State aid flowing to the districts would remain very much the same as a single entity as it would total for the five districts together. Building aid would increase substantially, of course, with the new construction and renovation of existing facilities.

In terms of current figures (for 1968), if the high school were completed and the renovation and conversion of kindergarten-through-grade-eight facilities well

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2 The cost of land acquisition is not included in this figure.

under way in the proposed reorganized district, the local tax rate would be between $16 and $17. This figure is close to that arrived at by the State in its financial analysis.[3]

It has also been pointed out that the tax rate of $2.24 for the construction of a new 1,200-pupil high school and the improvement of existing facilities would be actually less than the tax rate would be in three of the five districts if the districts were to improve their schools on an individual basis.

Centralization does not necessarily - nor should it in this case - lead to a lower tax rate within the five communities. A larger number of pupils should make the operation of the schools more efficient and result in a lower cost of operation per pupil for equal services rendered. Any money saved, however, will be and no doubt should be used to improve and expand existing programs. What should result is a better educational program for each dollar expended.

Debt Service

How much can, or should, a school district spend on debt service? By definition, debt service payments are the monies spent to build schools; the payments include both principal and interest.

In 1967-68, the median district in the nation spent 10.4 per cent of net current expenditures (approved operating expenses), or $48.50 per weighted pupil for debt service.[4] In 1967-68, as a centralized district the five school districts would have

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3 New York State Education Department, Long-Term Financial Plan, May 1967.
4 "Cost of Education Index, 1967-68," School Management, January 1968.

spent about 7 per cent of their approved operating expenses, or $46.50 per WADA for debt service. As a single centralized unit, the district would have by both measures spent less than the median district in the nation. For the New York-New Jersey-Pennsylvania region, it would have been considerably less, for the median for this region was $79.57 per weighted pupil.

Using these measures, it can be said that the districts, as reorganized, could spend more in the debt service category at the present time. By 1972-73 or 1973-74, when it might be expected that the high school would be occupied, a number of bonds will have been retired and the current bonded indebtedness reduced to allow for the incurring of a new debt amount, which would neither overburden the taxpayers nor exceed the legal debt limit.

Educational Costs

It is worthwhile to compare the educational costs in the five districts and an average of the five districts with educational costs in the nation and in New York State. Table 19 shows the net current expenditures per EPU (weighted pupil unit) for 1967-68 as calculated for the Cost of Education Index. The percentage figure - 50 per cent, for instance - means that half the districts surveyed are spending above this amount and half are spending below it. Ninety per cent means that only 10 per cent of the districts are spending this much or more. In 1967-68, the five school districts expended $667 on the average, to place them in the top 10 per cent category nationally, but to place them near the median or 50th percentile for Region 2, where expenditure levels are higher.

Table 19
NET CURRENT EXPENDITURES PER E.P.U., 1967-68

Category	Per Cent				
	10	25	50	75	90
Nation	$309.19	$381.48	$465.34	$545.28	$650.03
Region 2 (New York-New Jersey-Pennsylvania)	424.57	496.02	621.71	761.98	871.89

Source: "Cost of Education Index for 1967-68," School Management, January 1968.

In 1967-68, none of the districts spent $760 per pupil in approved operating expenses, the amount up to which the State will share in operating costs.

According to the annual finance survey of the Central School Boards Committee for Educational Research, New York State, for 1966-67, the five districts expended in the average or below the average per WADA in approved operating costs. The same survey suggests that four of the districts could have afforded to spend more, based on their true property valuation. These districts were Broadalbin, Edinburg, Mayfield, and Northville.[5]

In Summary

It is recommended that the five school districts proceed to take the necessary steps to reorganize into a single unit; to build a single 1,200-pupil high school for grades nine through twelve; and to renovate and convert existing facilities for kindergarten through grade eight.

5 Central School Boards Committee for Educational Research, Financing Central Schools, 1968.

Timetable

In order to receive incentive operating aid, the districts must reorganize prior to September 1, 1970. Of course, the legislature may extend this date. In the event that the date is not extended, it would be wise for the five districts to proceed as rapidly as possible to take advantage of this additional aid.

It would be in the best interests of the districts to reorganize by July 1, 1969. The sooner facilities and programs are upgraded, the better. There is, however, a great deal to be done and it may not be possible to complete everything by that date. In addition to the legal and administrative steps that must be taken to achieve reorganization, the school boards must take especial care to present to the citizens of their communities the facts concerning centralization. Ultimately, it is they who make the decision for or against centralization.

In the event that reorganization is achieved by July 1, 1969, the following schedule is offered. It can, of course, be revised accordingly if reorganization is delayed until July 1, 1970.

PROPOSED SCHEDULE

September 1969	- Secure consultant and architect services for planning four-year high school
April 1970	- Approve preliminary plans for new high school and secure bond issue authorization
November 1970	- Secure bids and let contracts for high school
April 1971	- Secure consultant and architect services for planning renovation and construction at existing schools
November 1971	- Approve preliminary plans for renovation and construction at existing schools and secure bond issue authorization
September 1972	- Four-year high school ready for occupancy
October 1972	- Secure bids and let contracts for renovation and construction at existing schools
December 1973	- All renovation completed and additional space for the K-8 programs ready for use