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ABSTRACT

Investigated with a random sample of classes for each of five categories of exceptionality--educable mentally retarded, trainable mentally retarded, socially and emotionally disturbed, brain injured, and physically handicapped--were the costs of special education in Pennsylvania elementary and secondary schools in relation to its quality. Data were analyzed for four major study components: (1) inputs (such as instructional setting), (2) outputs (student achievement and social competence), (3) costs, and (4) the relationships among inputs, outputs, and costs. Results indicated that special education pupils showed significant progress in basic skills and social maturity in the 1975-76 school year, that social maturity and achievement increases with chronological age, that the quality of special education instruction and programs is generally good, that costs of special education vary considerably within each category of exceptionality, that costs of special education did not consistently correlate with quality of instructional programs, and that costs of special education did not consistently correlate with achievement gains, but some relationship was discernible. (Findings are presented in 15 figures and 30 tables which make up the bulk of the document.) (Author/IM)

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SPECIAL EDUCATION

Quality Cost-Effectiveness Study

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October 1976

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SUMMARY

This study examines the costs of special education in Pennsylvania in relation to its quality. Quality was measured with (1) achievement tests, (2) a social maturity instrument and (3) a specially developed list of quality indicators.

The data analysis indicated:

1. Special education pupils showed significant progress in basic skills and social maturity in the 1975-76 school year. (This progress is presented in tabular form on page 3.)
2. Social maturity and achievement increases with chronological age.
3. The quality of special education instruction and programs generally is good.
4. Costs of special education vary considerably within each category of exceptionality.
5. Costs of special education did not consistently correlate with quality of instructional programs as measured with the quality indicators.
6. Costs of special education did not consistently correlate with achievement gains, but some relationship was discernible. For example, costs contributed significantly to achievement gains in reading and spelling for the elementary educable mentally retarded; in reading for the secondary educable mentally retarded; in reading for the elementary trainable mentally retarded; and in spelling for the elementary socially and emotionally disturbed, physically handicapped and brain injured.

The implications of this study are: (1) the Commonwealth of Pennsylvania is fulfilling its obligations to special education students since the students are making significant progress, specifically in basic skills and social maturity; (2) the quality of programs offered by local education agencies generally is good; and (3) since no consistent relationship was established between costs and quality, there may be some way to reduce high-cost programs by studying and comparing low-cost programs with high-cost programs.

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INTRODUCTION

This study was conducted because of widespread concern about special education. In view of the mounting pressures for accountability, it was decided to examine costs in relation to quality.

Accordingly, this study sought answers to the following questions:

1. Is there a significant relationship between costs and student progress in basic skills and social competence?
2. Is there a significant relationship between costs and quality?
3. What are the costs for the various delivery systems within each category of exceptionality?
4. What are the minimum costs for effective programs?

To answer these questions, it was decided that the four major components would be: (1) inputs (such as instructional setting), (2) outputs (student achievement and social competence), (3) costs and (4) the relationships among inputs, outputs and costs.

PROCEDURES

Sample

A random sample of classes was selected for each of the following five categories of exceptionality:

1. educable mentally retarded (EMR)
2. trainable mentally retarded (TMR)
3. socially and emotionally disturbed (SED)
4. brain injured (BI)
5. physically handicapped (PH)

The sample was stratified by:

1. the number of pupils per exceptionality
2. whether elementary or secondary
3. range of costs
4. demographic categories (inner-city, other metropolitan, suburban and rural)

Inputs

The lengthy effort which resulted in an Indicator of Quality instrument will be described in a technical manual. The items in this instrument are criteria of effectiveness deemed important by teachers, supervisors, parents, members of advocacy groups, college faculty and special educators in the Pennsylvania Department of Education. The resulting 54-item instrument was administered in the

spring of 1976 by a carefully trained team of eight Penn State graduate students. Their ratings were based on a combination of classroom observations, interviews of teachers and their supervisors (or school psychologists) and screening of pupil records. Subsequent analysis resulted in selecting the 38 items which best reflect these major factors:

1. instructional process
2. instruction setting, programs and services
3. administrative and instructional support
4. integration with regular classroom

Outputs

The following tests were administered in the fall of 1975 and late spring of 1976 to EMR's, SED's, BI's and PH's:

Vineland Social Maturity Scale
Wide Range Achievement Test

The Vineland Social Maturity Scale and the TMR Performance Profile were administered to the TMR's in the same time period.

Costs

A new form and detailed instructions were devised in consultation with intermediate unit special educators to obtain 1974-75 costs for (1) general administration, (2) special education administration, (3) direct instructional costs, (4) instructional support and (5) instructional materials and equipment. A separate form was prepared to collect 1974-75 costs of delivery systems. Intermediate unit personnel completed these forms in the fall and winter of 1975-76 for each category of exceptionality.

Statistical Analysis

This included descriptive statistics, correlation coefficients and multiple regression (commonality analysis).

RESULTS

General

In the 1975-76 school year, special education students made significant progress in basic skills and social maturity. The gains reported on the next page far exceed gains which could be attributed to chance. The probability in most cases for this progress being due to chance is less than two out of 10,000.

The gains reported on page 3 are quite remarkable, especially when one considers that there was only a five- to seven-month interval between the fall and spring test periods. The average IQ scores of students were: 92.4 for SED's, 92.3 for BI's, 77.1 for PH's, 69.6 for EMR's and 41.5 for TMR's.

Social and Cognitive Classroom Achievement Gains

Achievement	Pretest Average	Posttest Average	Gain	N ^c
I Socially and Emotionally Disturbed (SED)				
Vineland-Social Age	11.2	12.6	1.4 ^a	67
WRAT Reading	4.92	5.76	0.84 ^b	68
WRAT Spelling	4.33	4.76	0.43	68
WRAT Arithmetic	4.28	5.10	0.82	68
II Brain Injured (BI)				
Vineland-Social Age	11.2	12.9	1.7	33
WRAT Reading	3.37	4.07	0.70	33
WRAT Spelling	2.95	3.40	0.45	33
WRAT Arithmetic	3.50	4.15	0.65	33
III Physically Handicapped (PH)				
Vineland-Social Age	7.4	8.0	0.6	44
WRAT Reading	3.65	4.20	0.55	44
WRAT Spelling	3.04	3.49	0.45	44
WRAT Arithmetic	3.04	3.55	0.51	44
IV Educable Mentally Retarded (EMR)				
Vineland-Social Age	10.9	12.3	1.4	148
WRAT Reading	2.94	3.28	0.34	148
WRAT Spelling	2.93	3.18	0.25	148
WRAT Arithmetic	3.11	3.49	0.38	148
V Trainable Mentally Retarded (TMR)				
Vineland-Social Age	5.8	6.8	1.0	61
TMR Profile	444.38	509.80	65.42 ^d	65

^a1.4 equals a 1 year, 4 months average gain in social age in the 5-7 months between tests in the 1975-76 school year.

^b0.84 is a grade equivalent score average gain of slightly over 8 months in the 5-7 months between tests in the 1975-76 school year.

^cRepresents the number of classes used to compute the means (average).

^d65.42 represents an average raw score gain on the TMR performance profile in the 5-7 months between tests in the 1975-76 school year.

Another encouraging result is that social maturity and achievement generally increase with chronological age (see graphs on pages 1, 6, 7, 8 and 9). The foregoing reflect results which are reported in more detail in Tables 1-18, pages 38-55.

The positive significant relationship between chronological age and test results is reinforced by the following:

Correlation Coefficients between Age and Fall 1975 Test Results

	<u>SED</u>	<u>BI</u>	<u>PH</u>	<u>EMR</u>	<u>TMR</u>
Social Age	.72	.80	.32	.77	.56
Reading	.64	.57	.48	.62	--
Spelling	.62	.60	.50	.67	--
Arithmetic	.69	.69	.50	.72	--
TMR Profile	--	--	--	--	.50

All of the above correlations are significant. They would not be due to chance factors more than one time out of 1,000.

The smaller gains by years in special education, shown in Tables 1-18, probably reflect the relatively few years per child in special education as follows:

	<u>SED</u>	<u>BI</u>	<u>PH</u>	<u>EMR</u>	<u>TMR</u>
Average Years in Sp. Ed.	1.8	1.5	4.7	4.4	5.3

At the same time, in those categories of exceptionality where the average years in special education ranges from 4.4 to 5.3, there are significant relationships with test results as follows:

Correlation Coefficients between Years in Special Education and Fall 1975 Test Results

	<u>SED</u>	<u>BI</u>	<u>PH</u>	<u>EMR</u>	<u>TMR</u>
Social Age	.23	.09	.06	.45	.42
Reading	.13	.05	.40	.30	--
Spelling	.12	.03	.36	.35	--
Arithmetic	.14	.02	.38	.43	--
TMR Profile	--	--	--	--	.35

The above correlations for the EMR and TMR are significant. They would not be due to chance factors more than one time out of 1,000. The foregoing also applies to the correlations in reading, spelling and arithmetic for the PH. In those categories of exceptionality where the pupils remain in special education on the average of four or more years, special education does seem to make a significant contribution toward improved achievement in the basic skills.

FIGURE 1
SPECIAL EDUCATION RESEARCH STUDY
FALL 1975 SOCIAL AGE AVERAGE SCORES BY CHRONOLOGICAL AGE

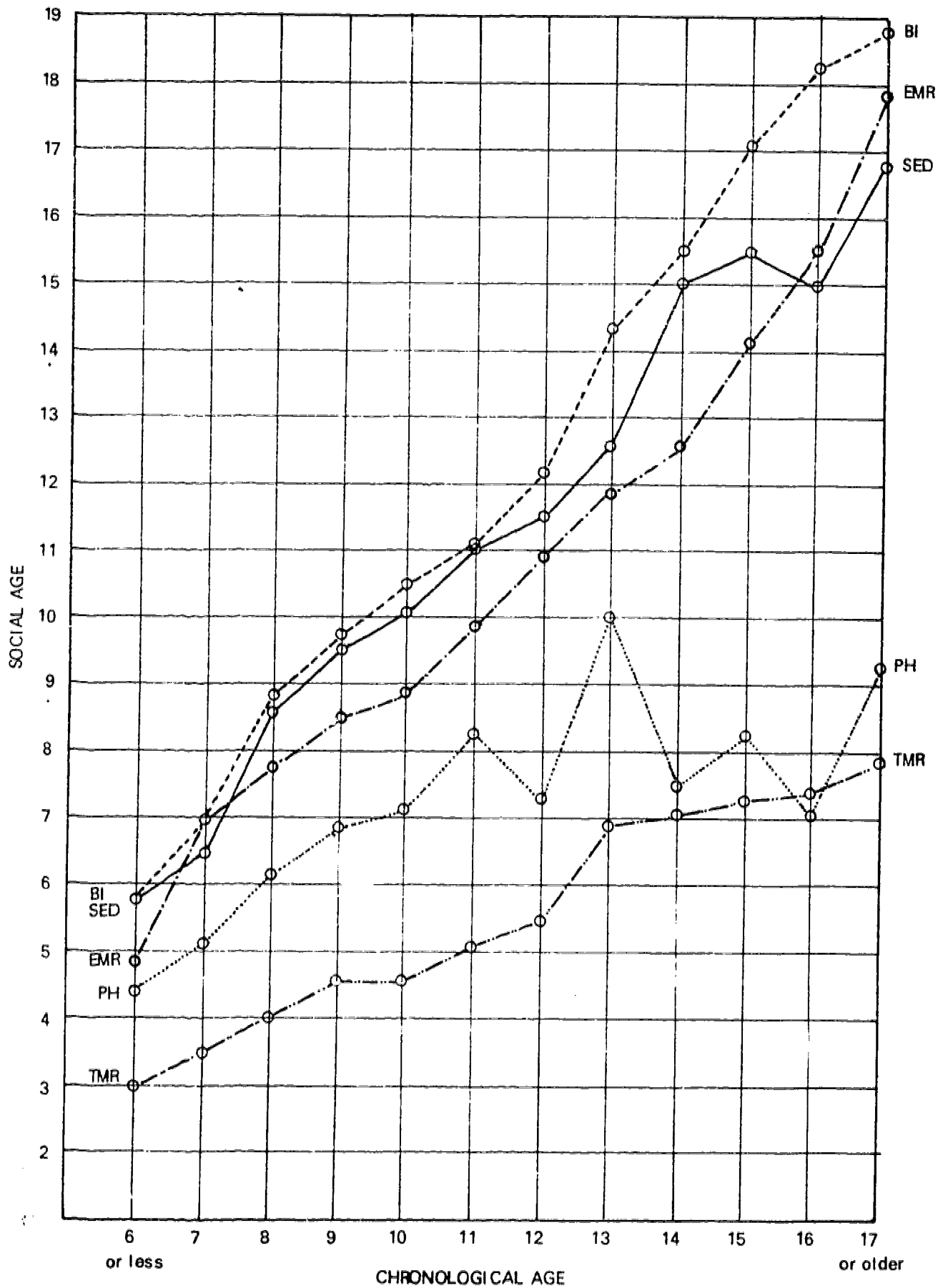


FIGURE 2
SPECIAL EDUCATION RESEARCH STUDY
AVERAGE READING GRADE EQUIVALENT SCORES BY CHRONOLOGICAL AGE

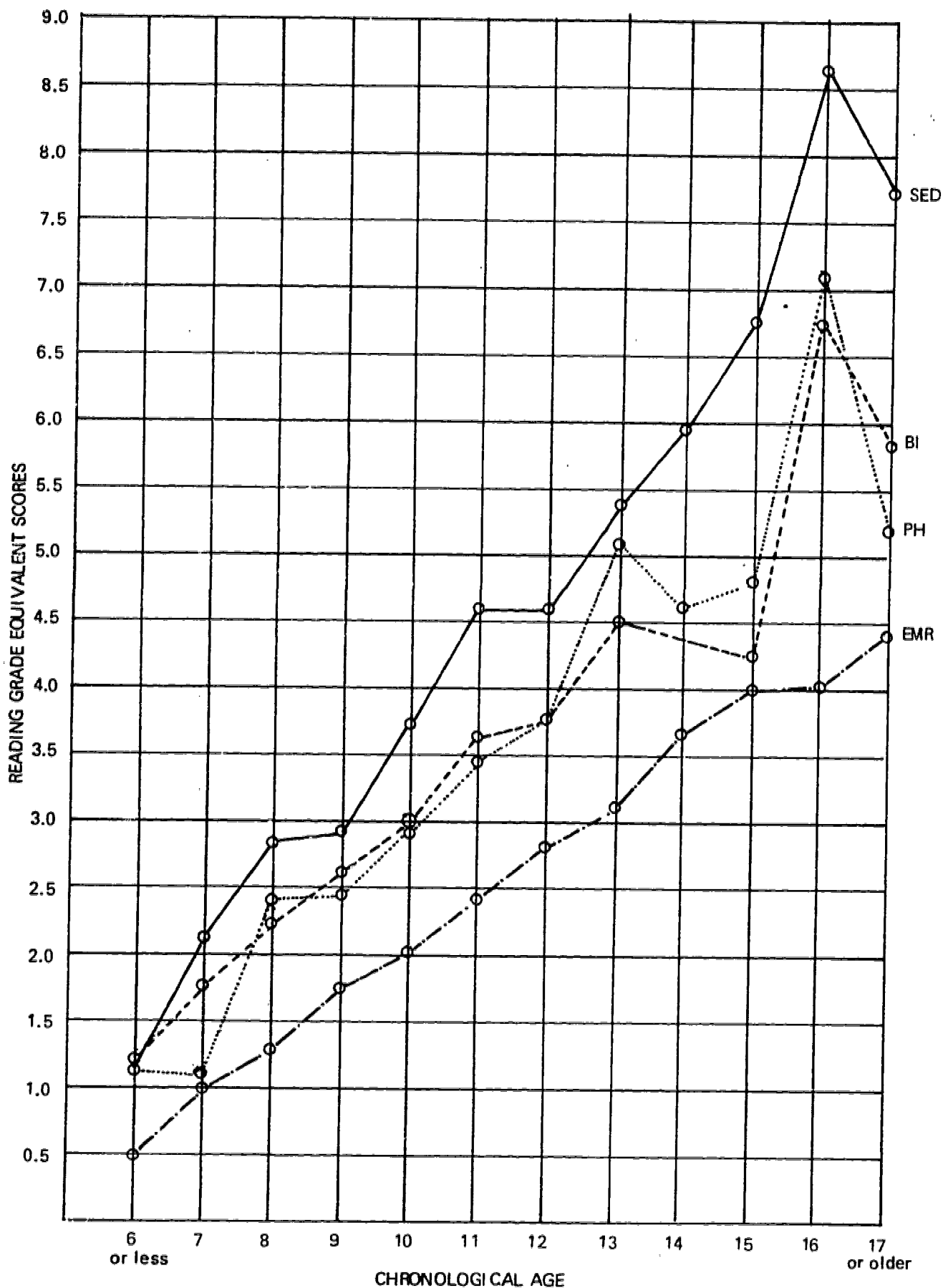


FIGURE 3
SPECIAL EDUCATION RESEARCH STUDY
AVERAGE SPELLING GRADE EQUIVALENT SCORES BY CHRONOLOGICAL AGE

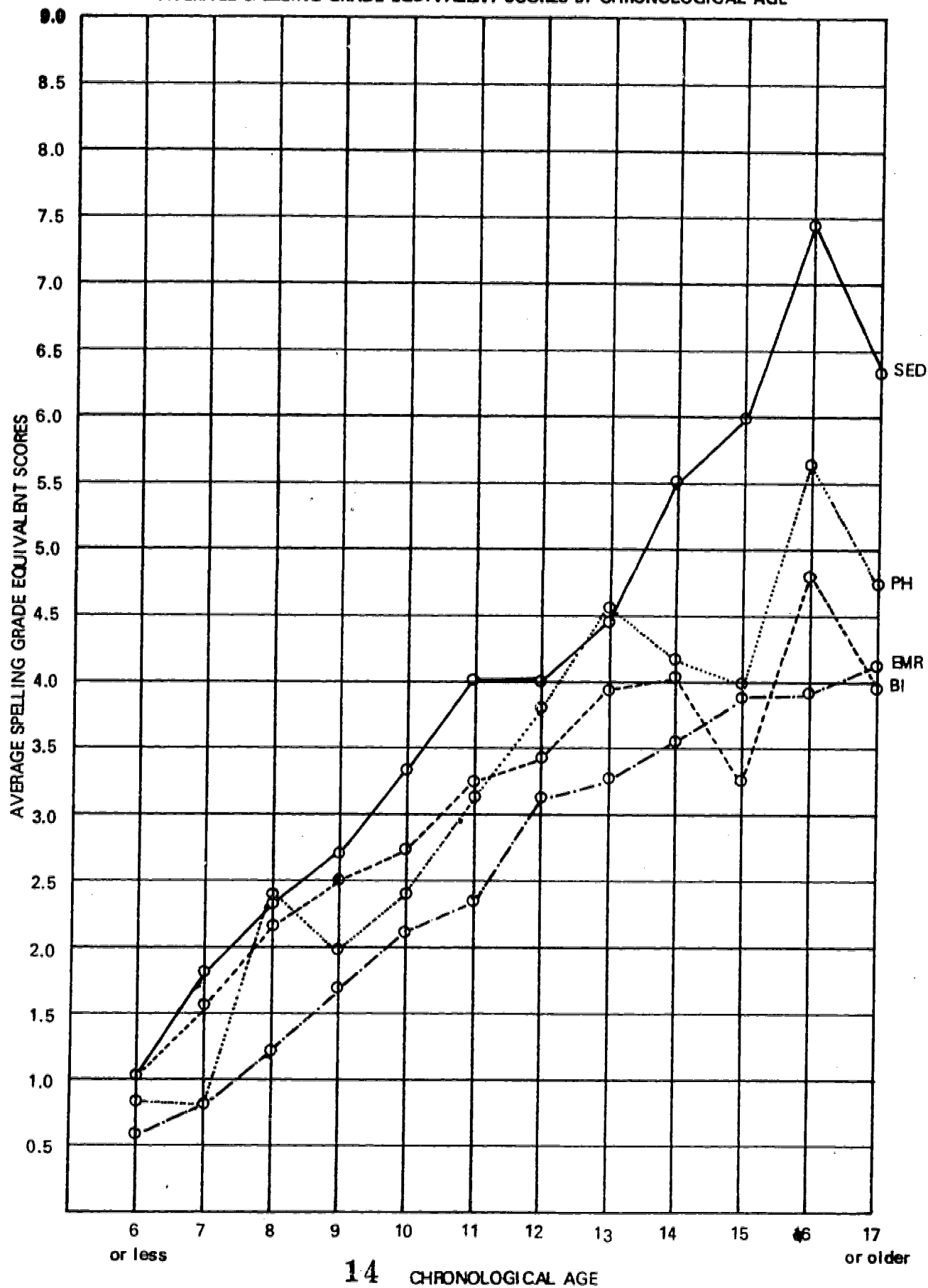


FIGURE 4
SPECIAL EDUCATION RESEARCH STUDY
AVERAGE MATH GRADE EQUIVALENT SCORES BY CHRONOLOGICAL AGE

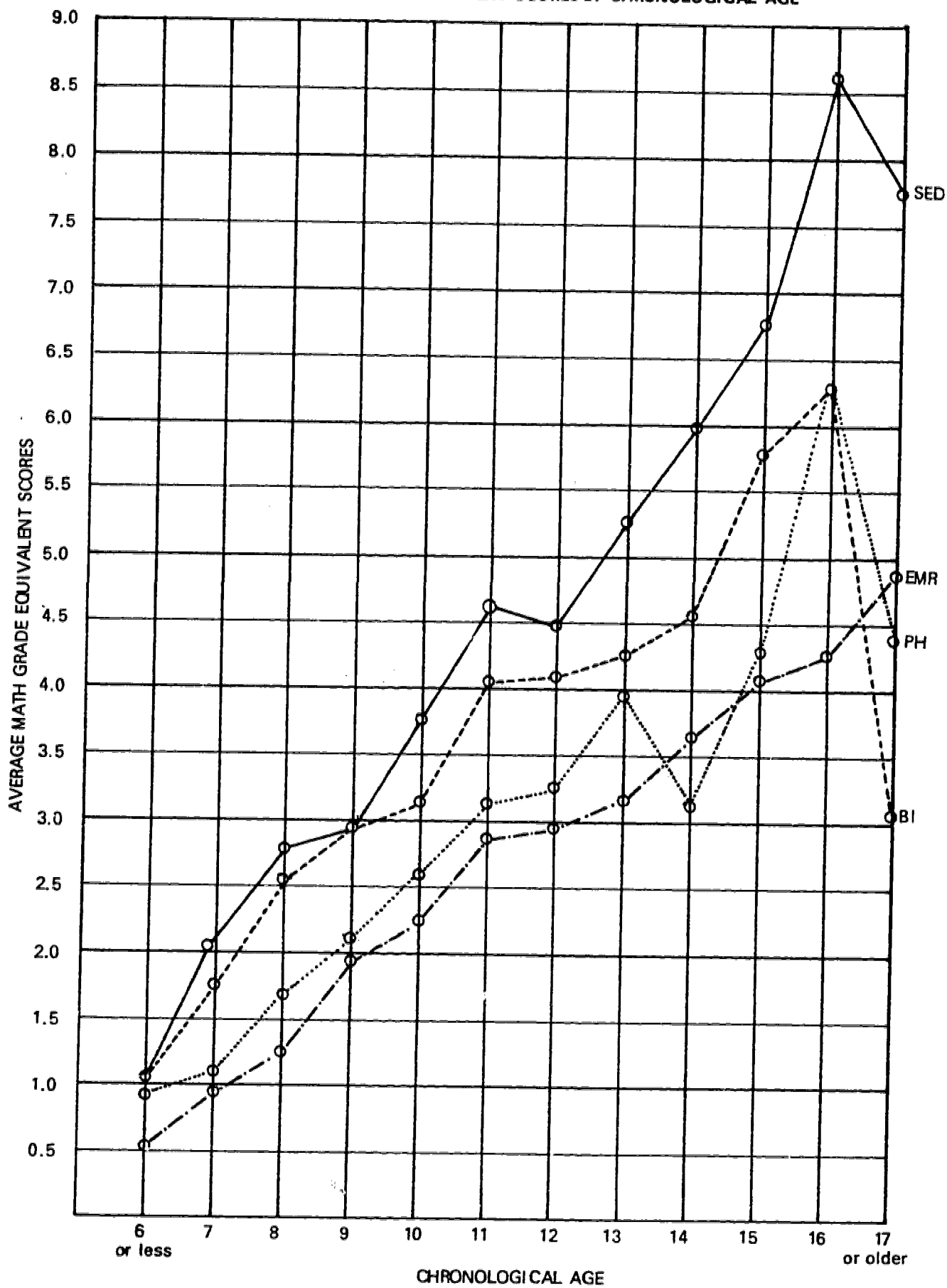
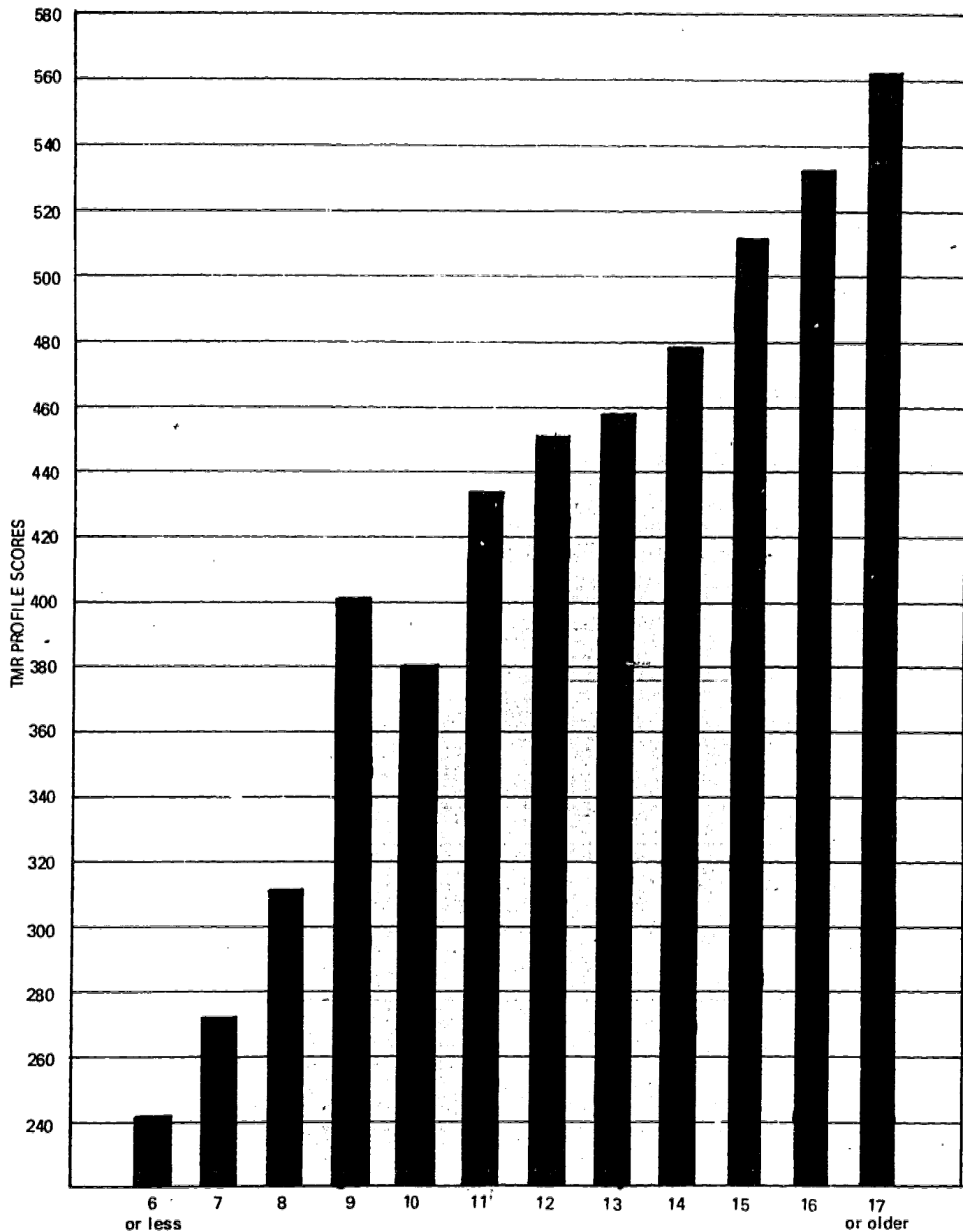


FIGURE 5
SPECIAL EDUCATION RESEARCH STUDY
AVERAGE TMR PROFILE SCORES BY CHRONOLOGICAL AGE



CHRONOLOGICAL AGE

Is There a Significant Relationship between Costs and Student Achievement?

This research attempted to study "school effects" in special education by investigating the unique and joint (common) contribution of costs, quality and background to achievement. A form of multiple regression known as commonality analysis was the major analytic procedure.

Gains in achievement scores (spring 1976 results minus fall 1975 results) were used as the "criteria" while costs, quality and background were used as "predictors" in the commonality analysis. Background (cumulative effects of home, school, etc.) was measured by fall 1975 test scores. Quality and costs were measured as reported previously on pages 1 and 2 under "Procedures." Classroom means were the statistical unit of analysis.

The percentages of the explainable variance* accounted for by costs were as follows:

Percentage of Variance Contributed by Costs

	EMR	
	<u>Elementary</u>	<u>Secondary</u>
Social Maturity	4.21	9.87
Reading	84.60	73.39
Spelling	79.29	38.58
Arithmetic	78.81	37.42
TMR		
Social Maturity	29.63	8.16
TMR Performance Profile	86.06	1.11
SED, BI and PH Combined		
Social Maturity	29.47	43.21
Reading	18.73	21.41
Spelling	36.60	32.43
Arithmetic	52.61	11.37

Costs significantly contributed to achievement gains in reading and spelling for the elementary EMR's; in reading for the secondary EMR's; in reading for the elementary TMR's; and in spelling for the SED's, PH's and BI's. A more complete technical reporting of the commonality results may be seen in Tables 19-28, pages 56-65.

*For example, as indicated in Table 20, page 57, the total explainable unique variance (R's) for EMR reading gains was 0.1915. This means that the variables included in the regression equation were able to predict 19.15 per cent of the total variance for EMR reading gains.

Is There a Significant Relationship between Costs and Quality?

Before reporting relationships between costs and quality, we feel the reader should know more about the Indicators of Quality instrument described briefly on pages 1 and 2 under "Inputs." The content of the items and the collective quality ratings for 386 special education classes on a scale of 1 (low) to 5 (high or best) were as follows:

Factor 1 - Instructional Process (11 items)

<u>Item</u> <u>Content</u>	<u>Ratings in Per Cent</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
1. Objectives are comprehensive and specific.	7	18	27	22	27
2. Individual differences are provided for.	1	6	22	35	35
3. There is individual diagnosis and prescription.	2	12	23	32	32
4. Awareness of individual capabilities is reflected in time scheduling.	2	5	45	27	21
5. Teacher skillfully gains and maintains student attention.	2	6	32	35	26
6. Each student is encouraged to participate.	2	5	26	45	24
7. Work is assigned on the basis of needs, interests and ability of each child.	2	7	36	32	23
8. Teacher adjusts techniques to needs of each student.	4	7	37	30	24
9. Teacher checks individual progress frequently.	2	7	31	33	27
10. Teacher encourages and effectively handles questions.	5	11	30	36	19
11. Teachers uses training aides effectively.	3	15	34	30	18

Factor II - Classroom Setting, Program and Services (13 items)

1. Classroom is flexible enough to allow a diversity of activities.	4	18	29	24	25
2. Classroom space is adequate.	9	13	39	21	18
3. Furniture is adequate.	4	25	37	19	19
4. Equipment is adequate.	2	16	33	27	22

<u>Item</u> <u>Content</u>	<u>Ratings in Per Cent</u>				
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
5. Classroom includes attractive learning centers.	7	28	28	18	19
6. Adequate classroom space and appropriate facilities are provided for itinerant services.	12	17	45	10	16
7. There is a continuum of programs and services through all school ages.	3	1	18	18	61
8. Program provides for total range of exceptionality, including the multiply handicapped.	0	8	18	12	61
9. A parent education program is an integral part of special education.	14	17	38	23	9
10. Speech program is provided for all students.	6	0	10	6	77
11. Itinerant vision and hearing teachers work with kindergarten pupils.	13	1	9	6	72
12. Services of physical therapist are available for all who need them.	20	8	8	11	54
13. Public relations effort maintains community awareness and interest in special education.	18	15	24	29	14

Factor III - Administration and Instructional Support
(9 items)

1. Appropriate examination records for each child, including psychological, vision and hearing screening, are on file	1	3	20	18	58
2. Continual (cumulative growth) records of students' progress are maintained.	1	8	22	16	54
3. An educational assessment of each child indicating strengths and weaknesses in specific skill areas are on file.	10	9	11	20	50
4. Preschool screening is available.	15	4	24	19	38
5. Early and comprehensive identification of "high risk" school-age children and immediate follow-up of individual prescription and instruction are available.	18	6	24	42	10

19

Item Content	Ratings in Per Cent				
	1	2	3	4	5
6. The educational assignment of every special education pupil is reevaluated not less than every two years.	2	1	4	15	78
7. Supervisor provides leadership in introducing needed and beneficial program changes.	9	14	27	18	32
8. Supervisor allots time for and encourages staff/parent conferences.	2	16	26	6	50
9. Teacher shares information with special education associates and/or other staff.	2	10	25	25	39

Factor IV - Integration with Regular Classroom
(5 items)

1. Special education classes are located within regular schools or have ready access to them.	33	6	2	1	58
2. There is evidence of a systematic plan to integrate special education students into regular programs.	27	15	21	14	24
3. Special education pupils placed in regular classes are provided help by resource and/or special education teachers.	34	12	13	16	25
4. Pupils are given an opportunity to participate in social, arts, music and physical education activities with nonhandicapped pupils.	43	6	8	4	39
5. Nonhandicapped children are encouraged to accept and help special education children.	36	16	19	15	14

The significance of the relationships between the above indicators and costs of special education will be described with correlation coefficients. The significance of such correlations is a function of the number of paired cases as well as the size of the correlation. If all paired values, when plotted, form a perfectly straight line, the relationship would be the highest possible and the correlation coefficient would be 1.00. If the high values of one variable tend to be associated with the high values of the other, the correlation is positive. A negative correlation results when the high values of one variable tend to be associated with the low values of the other.

The following correlations indicated both significant positive and negative relationships between costs and total scores on the indicators of quality instrument. The underlined correlations are significant, since they should not be due to chance factors more than five times out of 100. There are 13 significant correlations, of

which six are positive and seven are negative.

Correlations Between Costs and Total Quality Score

Elementary Classrooms

Cost Category	SED	Category of Exceptionality			TMR
		BI	PH	EMR	
Spec. Ed. Administration	-.50*	-.04	.00	.19	.20
Instructional Salaries	-.53*	.01	.10	.08	-.02
Other Instructional Costs	.31*	-.05	-.27	-.11	-.19
Support Services	-.01	-.64*	-.08	.10	-.12
Instructional Materials	.05	.56*	-.23	.42*	.17

Secondary Classrooms

Spec. Ed. Administration	-.13	.06	.04	.35*	.00
Instructional Salaries	.08	.06	.42*	-.05	-.13
Other Instructional Costs	.02	.12	-.53*	.24	.27
Support Services	-.42*	-.29	-.27	.11	-.35*
Instructional Materials	-.32*	.23	.02	.39*	.10

The above findings make it difficult to generalize except to say it appears there is no consistent relationship between costs and quality as measured in the 1975-76 school year.

The five cost areas selected for the research analysis and the line budget items under each were:

1. special education administration
 - . principals
 - . directors of special education
 - . supervisors
 - . instructional advisers
 - . clerical
2. instructional teachers
 - . teachers
 - . teacher substitutes
 - . other instructional staff
3. other instructional costs
 - . instructional assistant
 - . contracted services
4. special education support
 - . school psychologist
 - . psychiatrist
 - . nurses

- . clinical psychologist
- . psychiatric social worker
- . therapists
- . clerical
- . other expenses
- . contracted medical services

5. instructional materials

- . textbooks
- . audiovisuals
- . supplies
- . other items
- . other expenses--miscellaneous

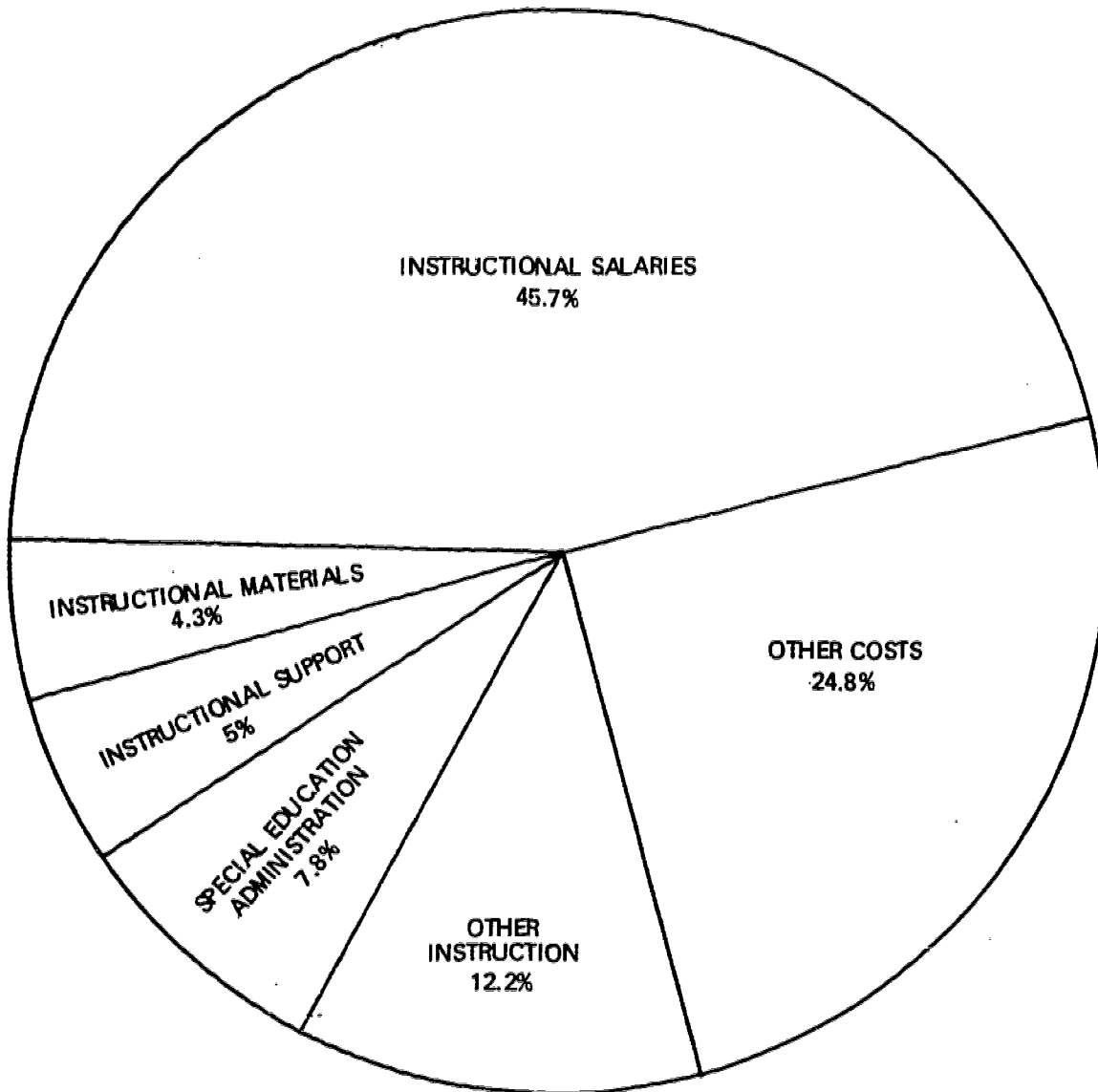
Other costs included:

- . contracted auditing services
- . contracted legal services
- . other contracted services
- . staff travel
- . operation and maintenance salaries
- . operation and maintenance supplies
- . fuel for building
- . utilities
- . other expenses of maintenance
- . instructional equipment replacement
- . noninstructional equipment replacement
- . contracted services for maintenance
- . employe retirement
- . Social Security
- . Workmen's Compensation
- . employe insurance
- . fire insurance
- . other insurance
- . rent
- . other fixed charges
- . supplementary feeding
- . new instructional equipment
- . new noninstructional equipment

The 10 charts on the next several pages show the percentages of average class costs for the various cost areas.

FIGURE 6

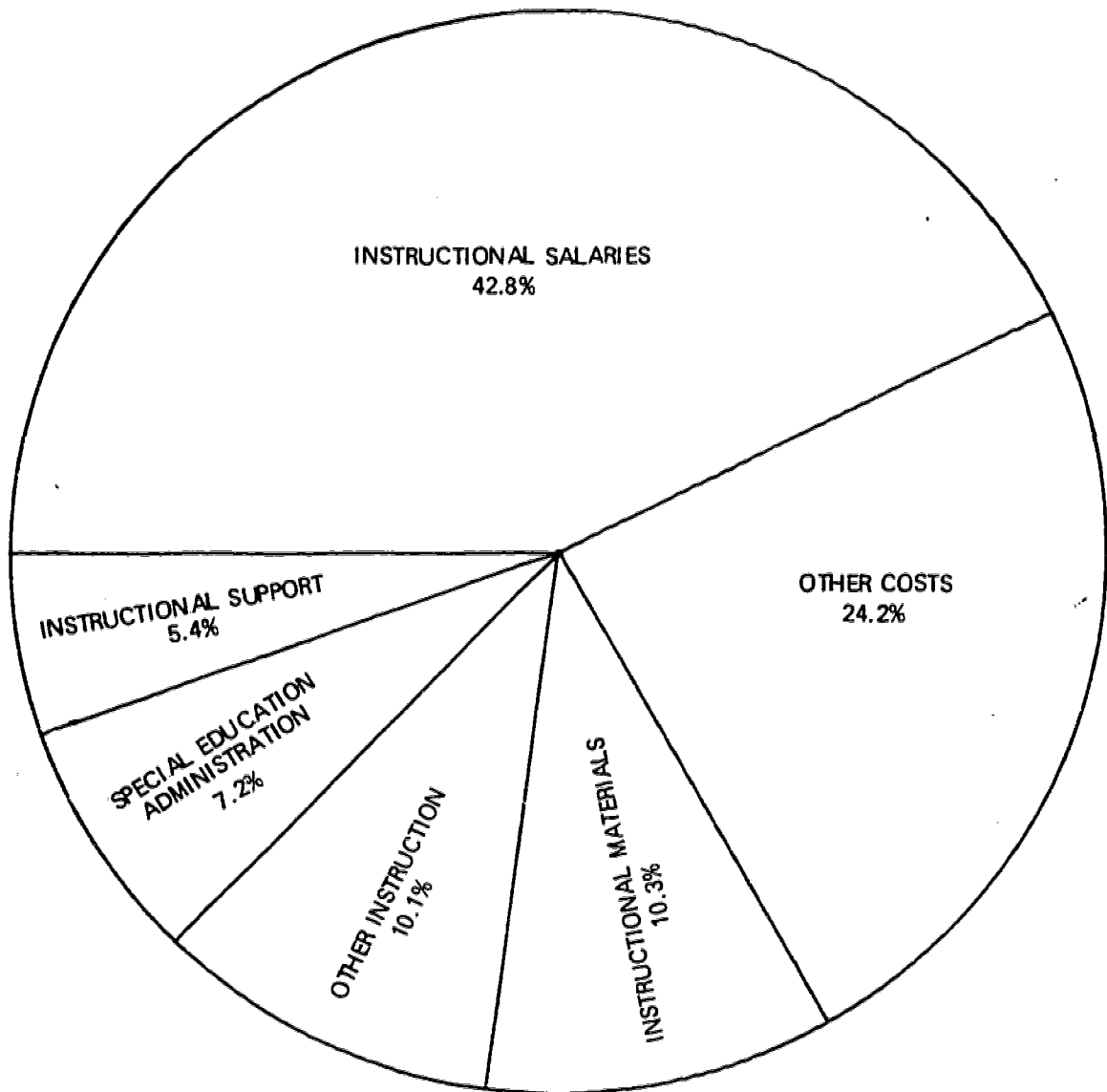
SPECIAL EDUCATION RESEARCH STUDY
SED ELEMENTARY COSTS



AVERAGE CLASS COST \$25,908

FIGURE 7

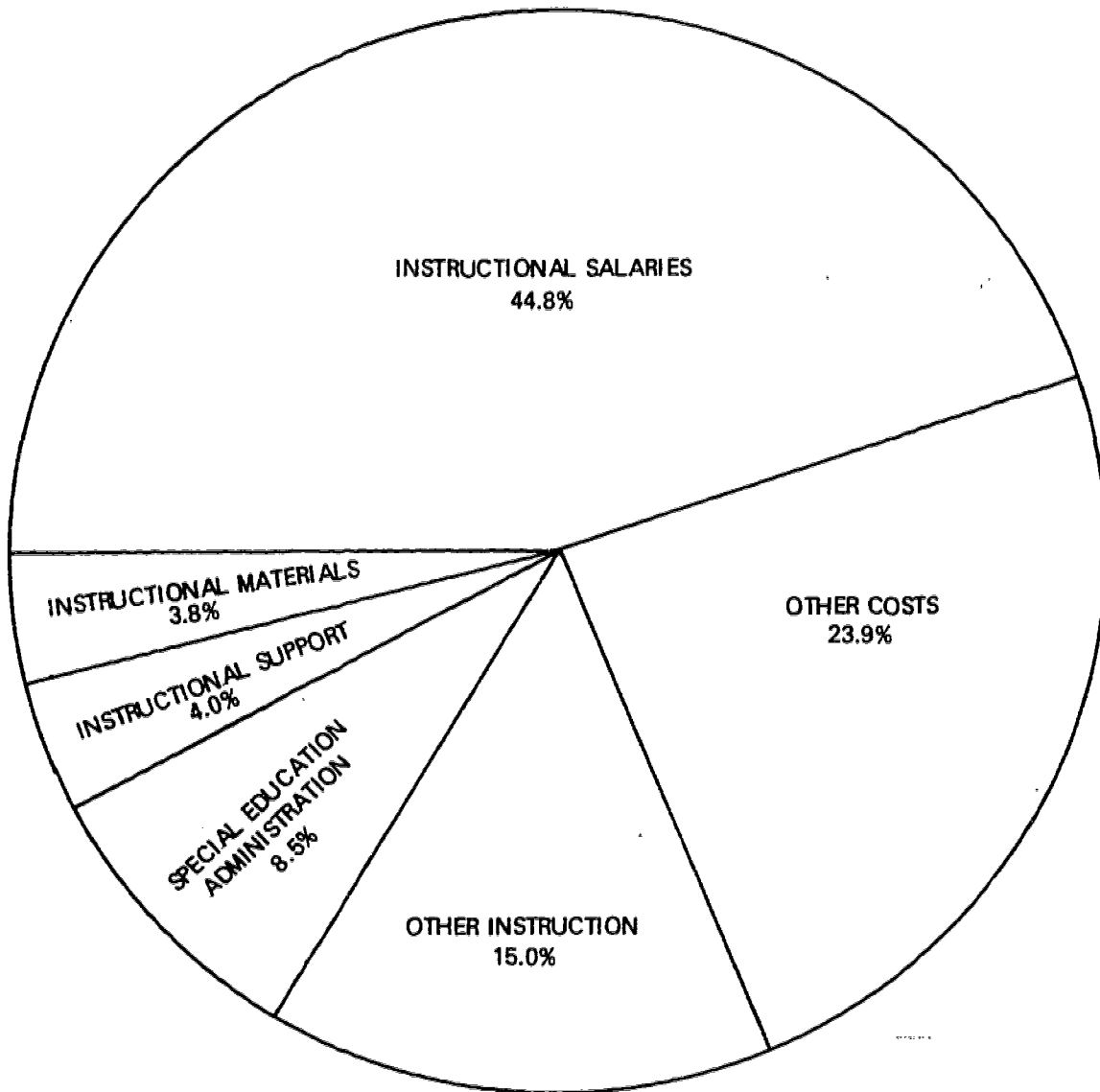
SPECIAL EDUCATION RESEARCH STUDY
SED SECONDARY COSTS



AVERAGE CLASS COST \$24,755

FIGURE 8

SPECIAL EDUCATION RESEARCH STUDY
BRAIN INJURED ELEMENTARY COSTS

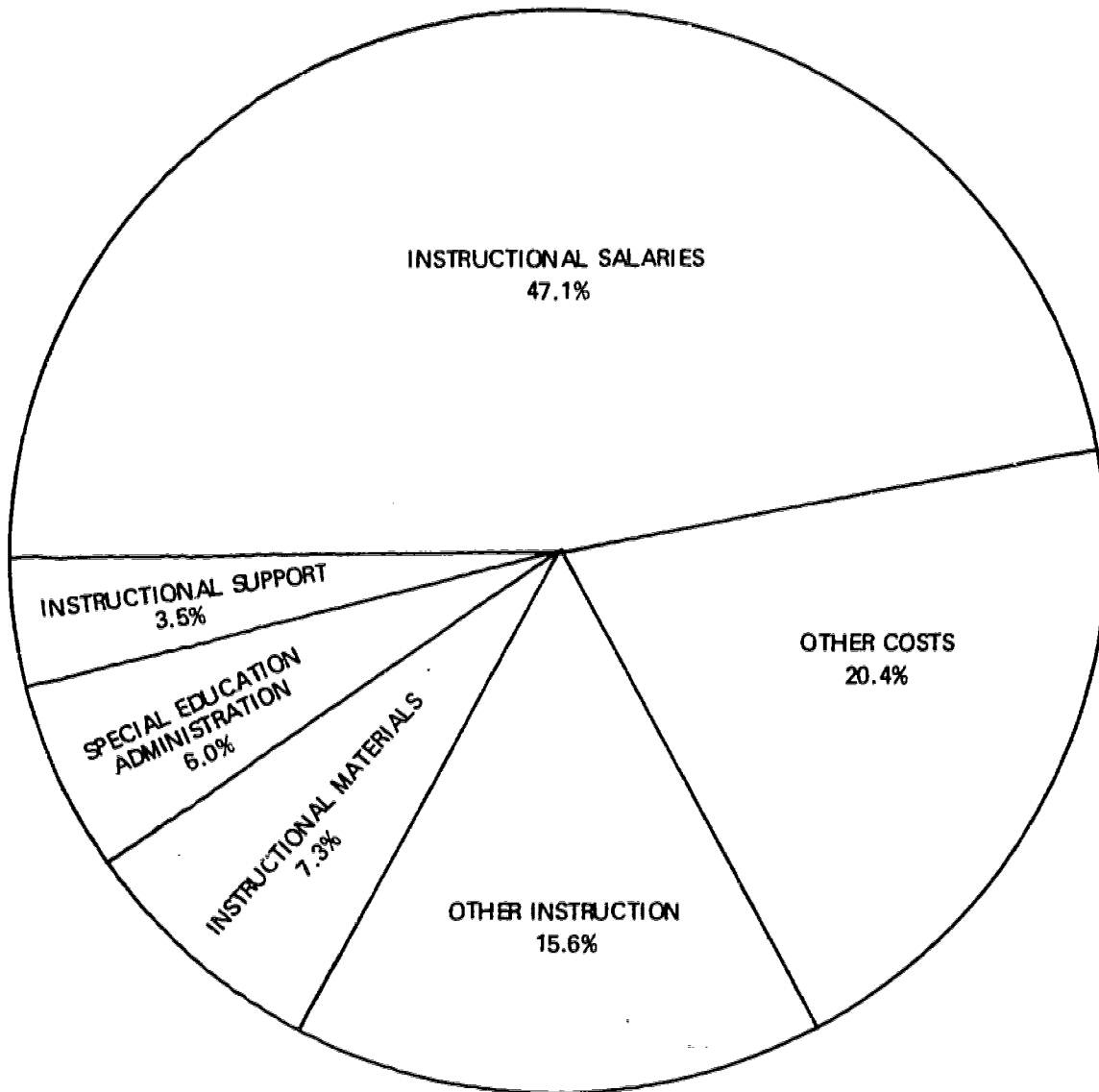


AVERAGE CLASS COST \$25,074

25

FIGURE 9

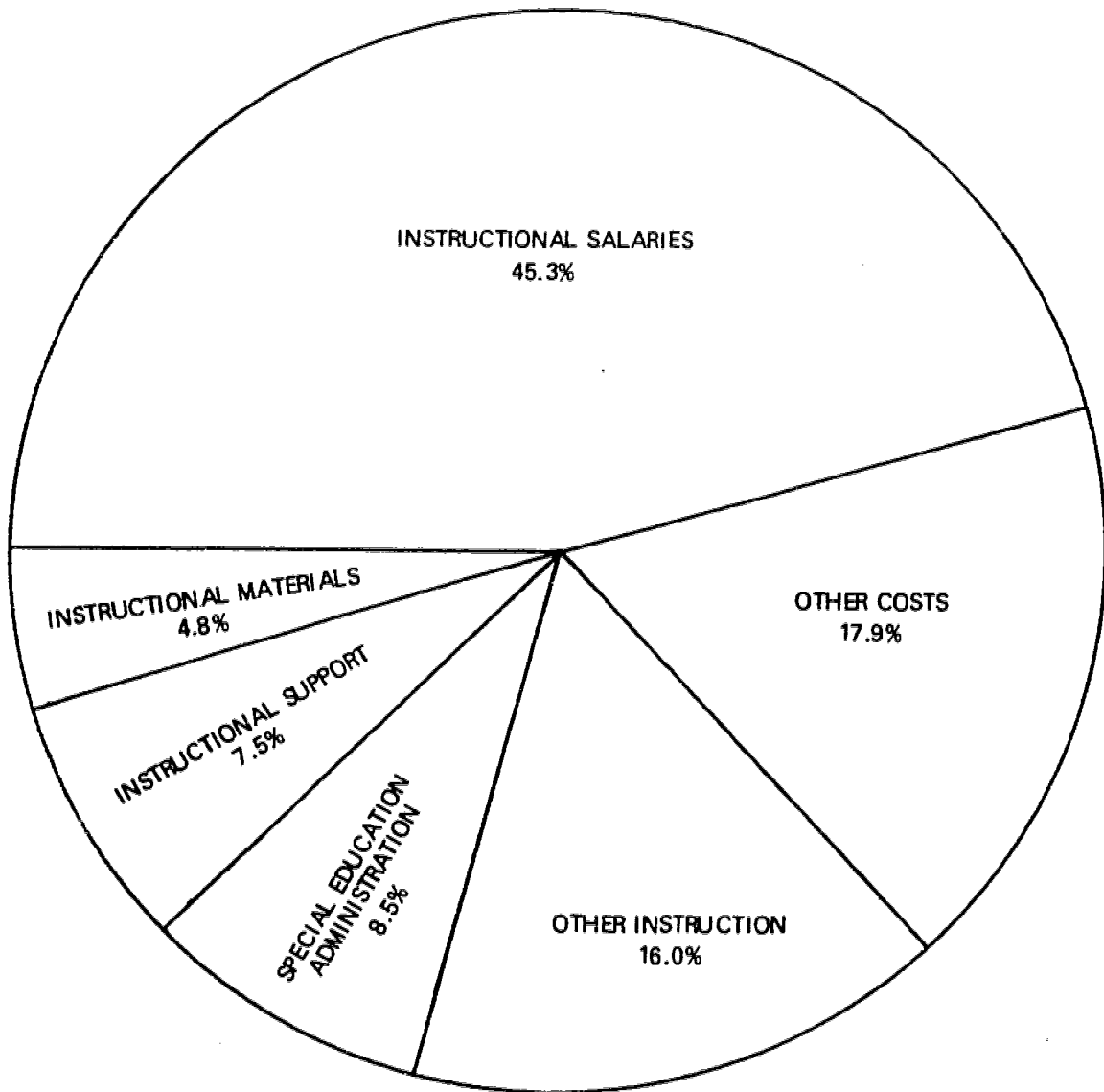
SPECIAL EDUCATION RESEARCH STUDY
BRAIN INJURED SECONDARY COSTS



AVERAGE CLASS COST \$21,283

FIGURE 10

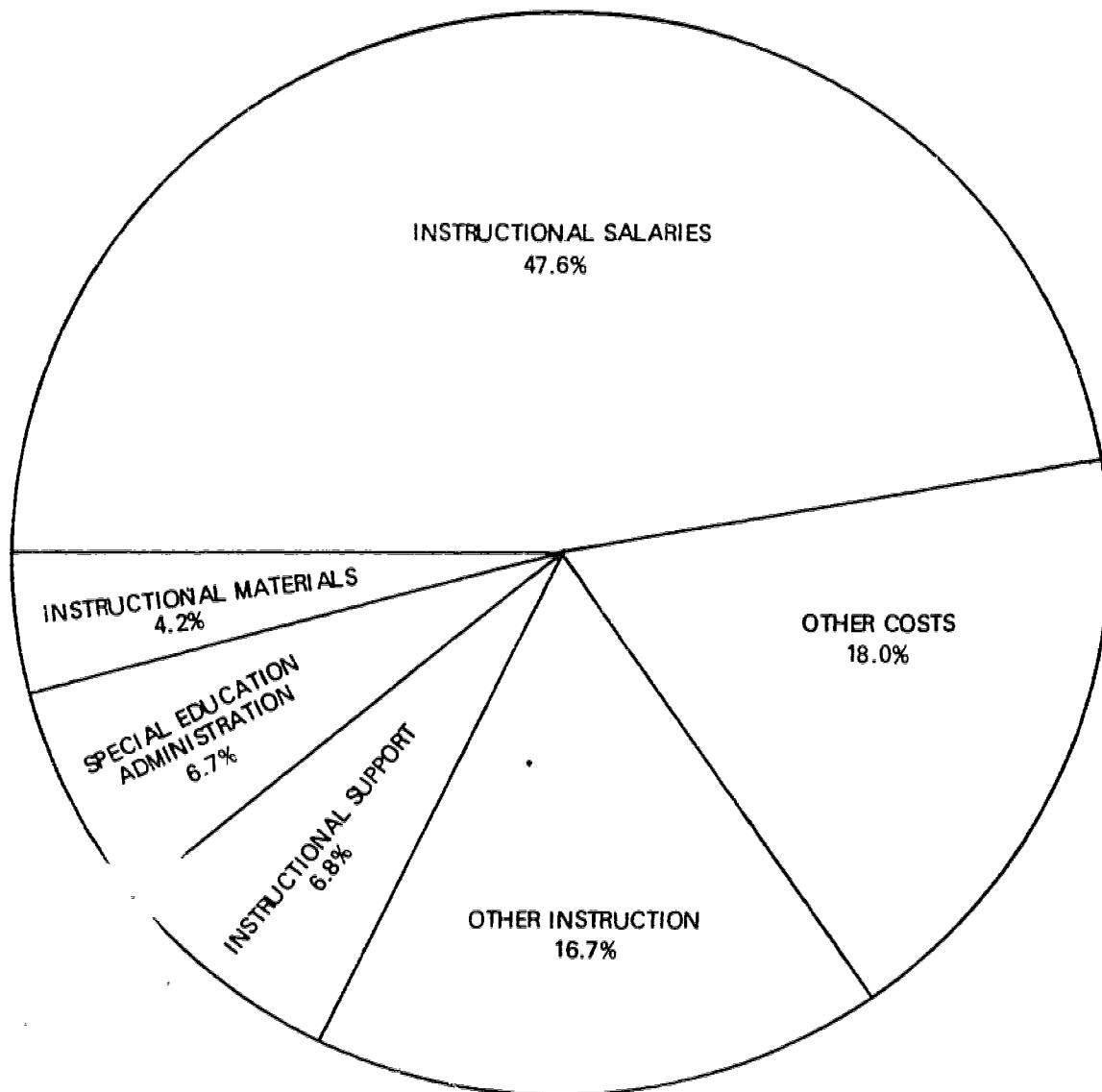
**SPECIAL EDUCATION RESEARCH STUDY
PHYSICALLY HANDICAPPED ELEMENTARY COSTS**



AVERAGE CLASS COST \$28,864

FIGURE 11

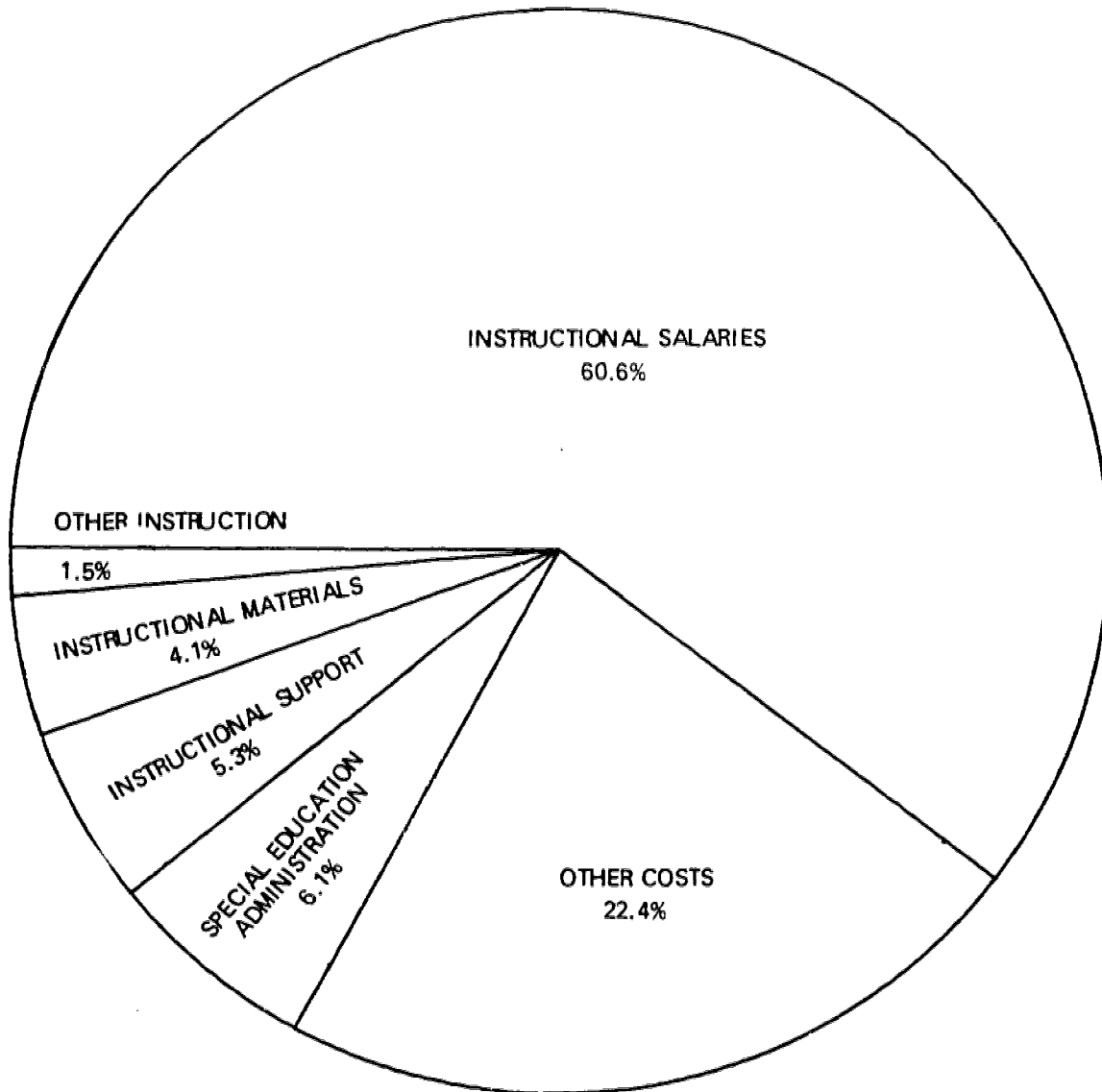
SPECIAL EDUCATION RESEARCH STUDY
PHYSICALLY HANDICAPPED SECONDARY COSTS



AVERAGE CLASS COST \$27,605

FIGURE 12

SPECIAL EDUCATION RESEARCH STUDY
EMR ELEMENTARY COSTS

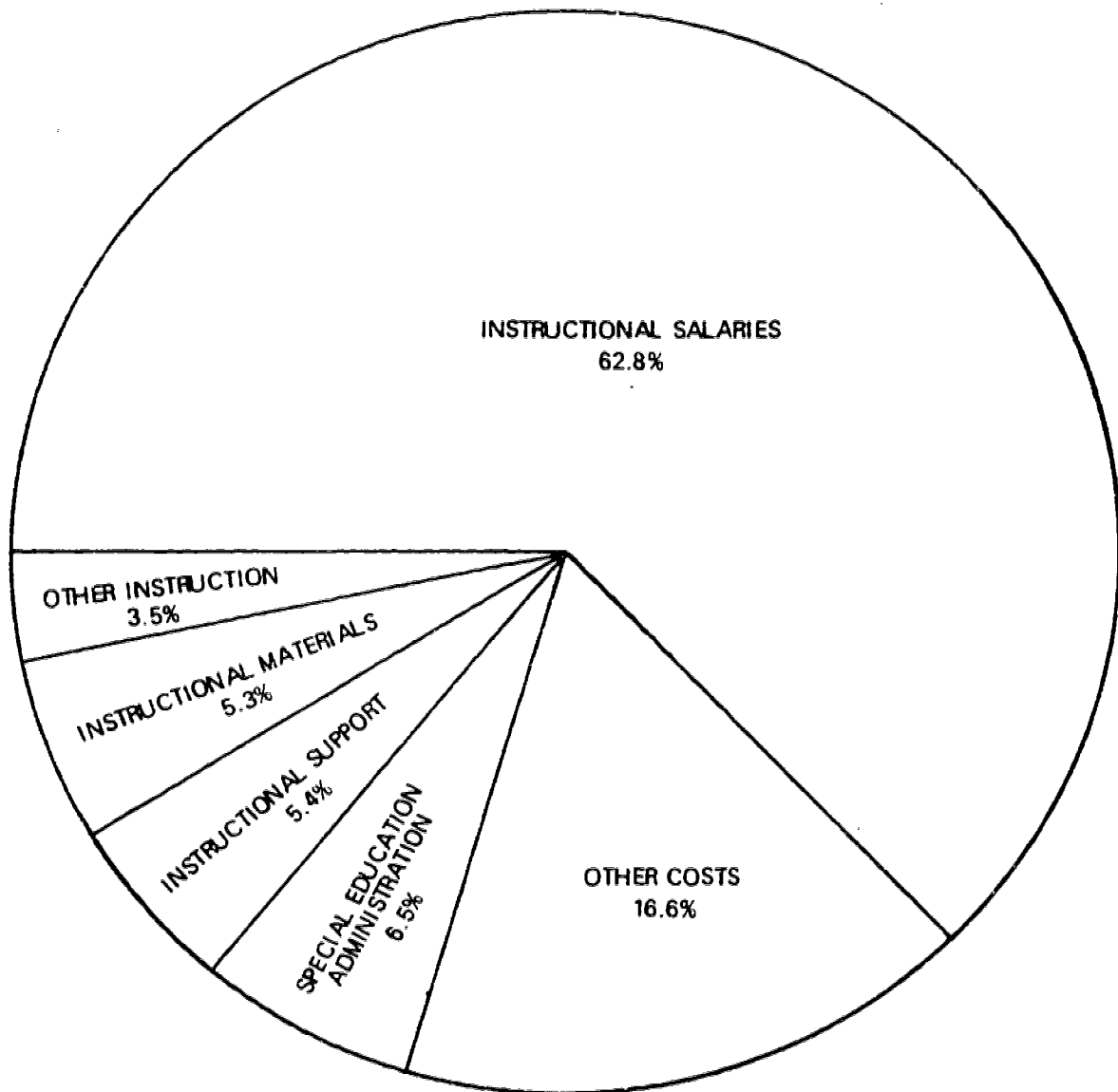


AVERAGE CLASS COST \$18,546

29

FIGURE 13

SPECIAL EDUCATION RESEARCH STUDY
EMR SECONDARY COSTS

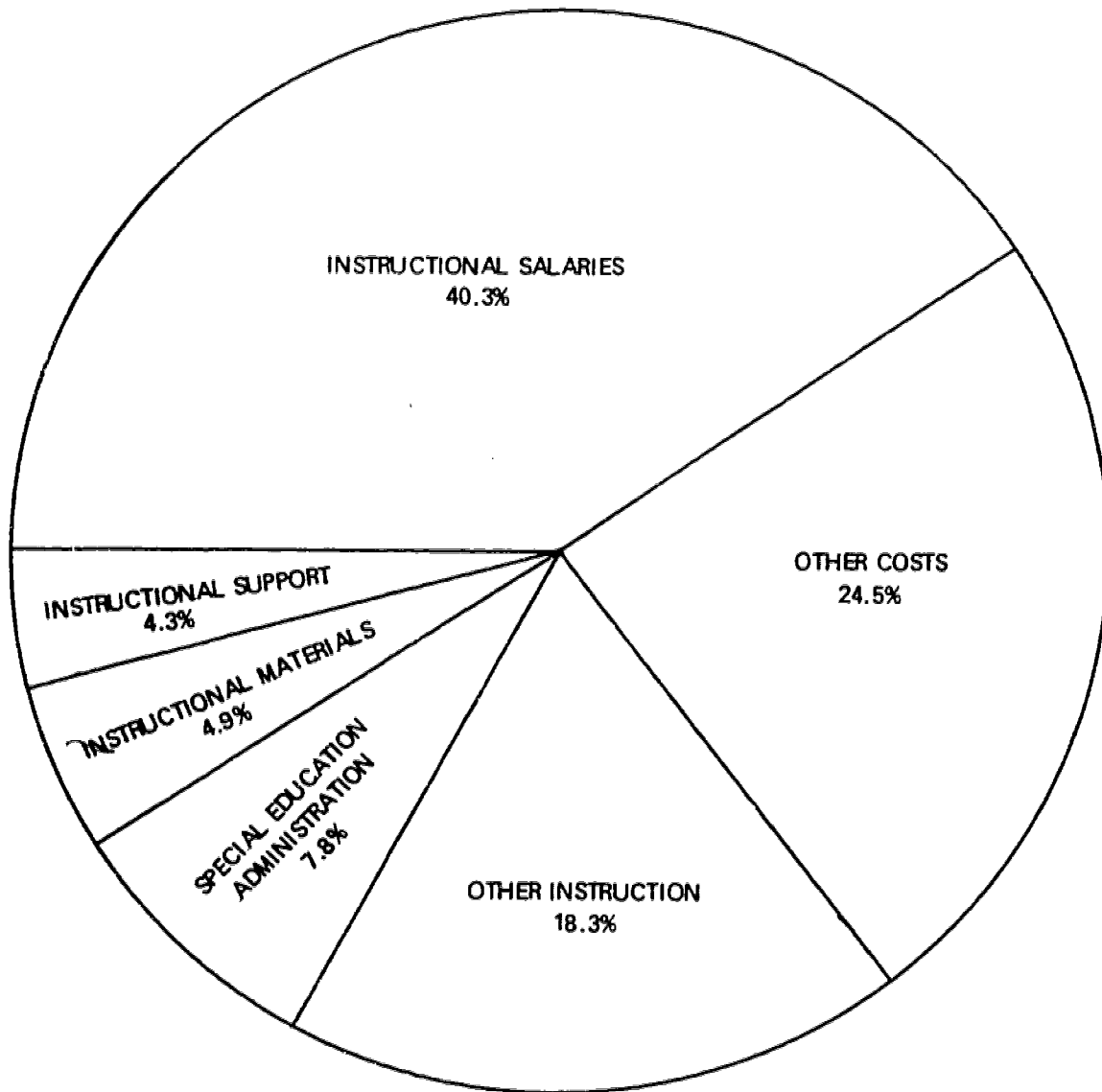


AVERAGE CLASS COST \$16,911

30

FIGURE 14

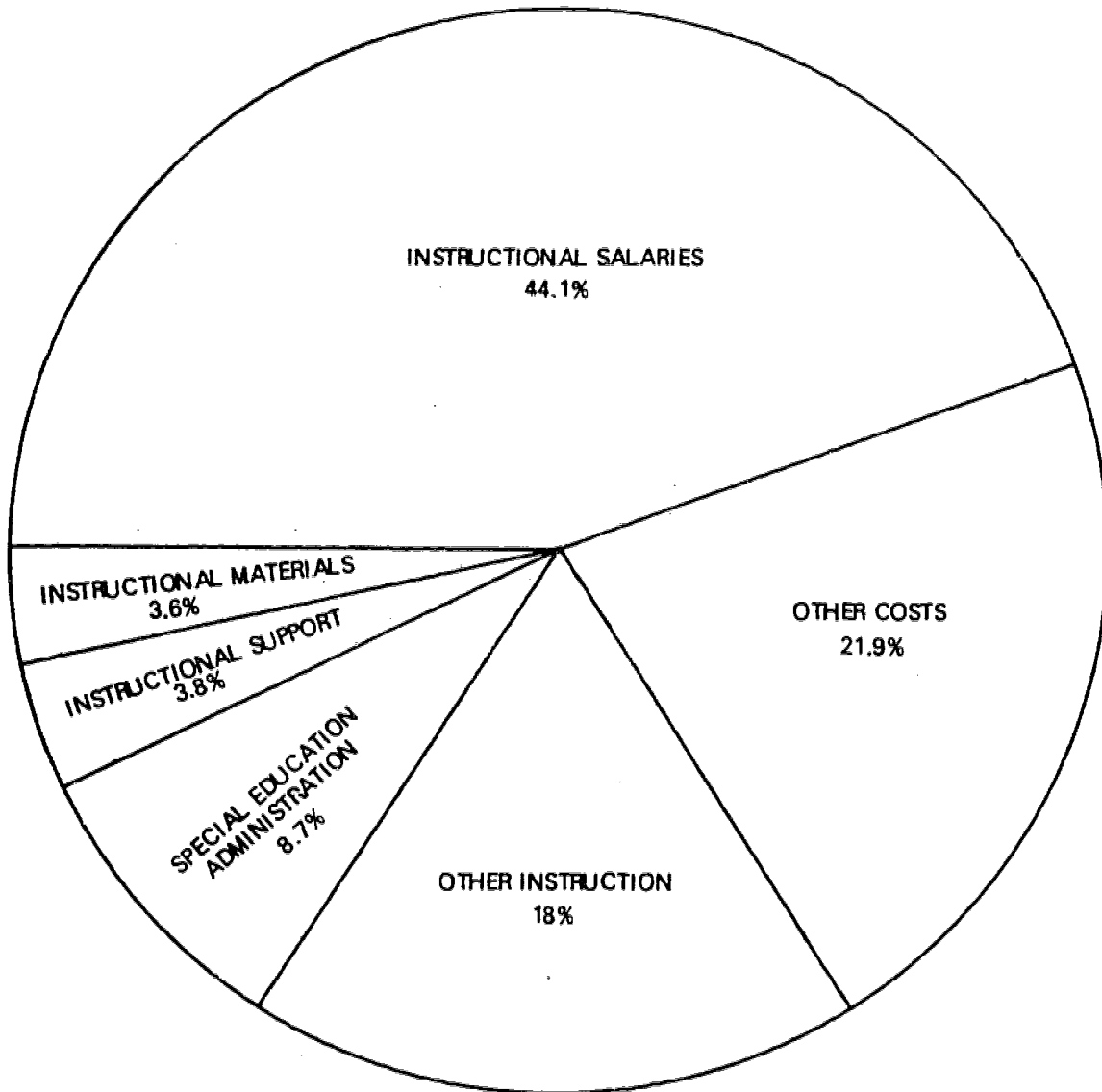
SPECIAL EDUCATION RESEARCH STUDY
TMR ELEMENTARY COSTS



AVERAGE CLASS COST \$26,156

FIGURE 15

SPECIAL EDUCATION RESEARCH STUDY
TMR SECONDARY COSTS



AVERAGE CLASS COST \$26,175

Figures 6-15 are summarized as follows:

Percentage Comparison of Costs by Categories of Exceptionality

	Instruc. Salaries	Other Instruc.	Instruc. Materials	Instruc. Support	Sp.Ed. Admin.	Other Costs	Ave. Class Cost
SED - E*	45.7	12.2	4.3	5.0	7.0	24.9	25,908
SED - S*	42.8	10.1	10.3	5.4	7.2	24.2	24,755
BI - E	44.8	15.0	3.8	4.0	8.5	23.9	25,074
BI - S	47.1	15.6	7.3	3.5	6.0	20.4	21,283
PH - E	45.3	16.0	4.8	7.5	8.5	17.9	26,864
PH - S	47.6	16.7	4.2	6.8	6.7	18.0	27,065
EMR - E	60.6	1.5	4.1	5.3	6.1	22.4	18,546
EMR - S	62.8	3.5	5.4	6.5	16.6	16.6	16,911
TMR - E	40.3	18.3	4.9	4.3	7.8	24.5	26,156
TMR - S	44.1	18.0	3.6	3.8	8.7	21.9	26,175

*E means elementary; S means secondary.

A considerable range of costs exists for the various categories of exceptionality (see Tables 29 and 30, pages 66-67). Some intermediate units are spending twice as much on EMR's per average daily membership (ADM) as other IU's. Several IU's are spending about three times more than other IU's on TMR's. Eight are spending more than \$5,000 per ADM on SED's while three are spending less than \$2,000 per ADM. Four are spending more than \$5,000 per ADM on BI while six are spending less than \$2,000.

Delivery System Costs

The following instructional delivery systems costs¹ are based on detailed instructions furnished intermediate unit special education directors:

Socially and Emotionally Disturbed Delivery Systems Costs Per Class

<u>Type of Delivery Systems</u>	<u>No. Classes Reported</u>	<u>Average</u>	<u>Range</u>
Full-time self- contained spec. educ. class	37	\$16,798	\$ 9,415 - 29,344
Reg. classes - parttime resource room	5	12,951	11,167 - 16,624
Spec. classes - reg. class for nonacademic work	8	15,808	11,504 - 21,989
Spec. classes - reg. class for selected academic work	6	15,773	11,504 - 18,388
Reg. classes - consultant or helping teacher available	5	13,245	10,430 - 19,700
Work-study spec. educ. classes	1	19,133	
Spec. classes - resource room	1	16,555	

Full-time self-contained classes were the largest number reported. They had an average cost of \$16,798, which was greater than the other delivery systems, except the one work-study class reported.

¹Delivery system costs include only operational costs, such as third-year salaries of teachers, aides and support and research staff; supplies; textbooks; materials and maintenance costs for instructional and noninstructional equipment.

Brain Injured Delivery Systems Costs Per Class

<u>Type of Delivery System</u>	<u>No. Classes Reported</u>	<u>Average</u>	<u>Range</u>
Full-time self- contained spec. educ. class	35	\$16,071	\$12,337 - 28,583
Reg. classes - parttime resource room	19	15,437	9,828 - 21,275
Spec. classes - reg. class for nonacademic work	9	16,461	12,008 - 16,461
Spec. classes - reg. class for selected academic work	10	18,133	12,008 - 27,400
Reg. classes - consultant or helping teacher available	9	12,081	10,236 - 17,840
Vocational spec. educ. with work experience	1	15,346	
Spec. classes - resource room	3	15,299	10,523 - 19,004
Itinerant	1	10,625	

Costs reported for the special class resource room are in addition to costs for the other delivery systems.

The least expensive system is a regular class program with a consulting or helping teacher.

Physically Handicapped Delivery Systems Costs Per Class

<u>Type of Delivery System</u>	<u>No. Classes Reported</u>	<u>Average</u>	<u>Range</u>
Full-time self- contained spec. educ. class	40	\$17,027	\$ 9,874 - 17,027
Spec. classes - reg. class for nonacademic work	1	14,248	
Spec. classes - reg. class for selected academic work	2	16,067	16,021 - 16,113
In-home instruction	3	14,624	10,050 - 19,290

Four types of delivery systems were reported. The most expensive and most widely used was the full-time self-contained delivery system.

Educable Delivery Systems Costs Per Class

<u>Type of Delivery System</u>	<u>No. Classes Reported</u>	<u>Average</u>	<u>Range</u>
Full-time self- contained spec. educ. class	29	\$13,855	\$ 9,426 - 21,228
Reg. classes - parttime resource room	2	27,626	11,683 - 43,568
Spec. classes - Reg. class for nonacademic work	16	12,303	9,806 - 20,464
Spec. classes - reg. class for selected academic work	8	12,256	9,966 - 18,763
Work-study spec. educ. classes	10	15,895	8,600 - 24,200
Vocational spec. educ. with work experience	6	11,981	9,200 - 18,935

Six types of delivery systems were reported by the intermediate unit special education directors.

The work-study delivery system was the most expensive. The number of classes reported, the average cost and the range of the costs give a better estimate of the various costs.

Trainable Delivery Systems Costs Per Class

<u>Type of Delivery System</u>	<u>No. Classes Reported</u>	<u>Average</u>	<u>Range</u>
Full-time self- contained spec. educ. class	51	\$16,728	\$10,083 - 26,857
Spec. classes - reg. classes for nonacademic work	2	19,205	17,041 - 21,368
Work-study spec. educ. classes	1	15,953	
Vocational spec. educ. with work experience	4	18,191	9,200 - 23,698
In-home instruction	3	12,326	9,200 - 17,475

Five types of delivery systems were reported. The special education class with a regular class for nonacademic work and the vocational special education class with work experience were higher in cost than the self-contained class. Only one work-study class was reported. The in-home cost was the least expensive.

Severely and Profoundly Retarded Delivery Systems Costs Per Class

<u>Type of Delivery System</u>	<u>No. Classes Reported</u>	<u>Average</u>	<u>Range</u>
Full-time self- contained spec. educ. class	32	\$17,925	\$13,381 - 25,807
In-home	12	10,902	8,850 - 17,520

Only two delivery systems were reported. The average cost for the full-time self-contained class is the highest for the two delivery systems reported.

Detention Homes Delivery Systems Costs Per Class

<u>Type of Delivery System</u>	<u>No. Classes Reported</u>	<u>Average</u>	<u>Range</u>
Full-time self- contained spec. educ. class	15	\$13,819	\$ 9,172 - 36,600
In-home instruction	1	9,785	

Most of the costs reported represented secondary programs, since detention homes usually have older children.

Hearing Impaired Delivery Systems Costs Per Class

<u>Type of Delivery System</u>	<u>No. Classes Reported</u>	<u>Average</u>	<u>Range</u>
Full-time self- contained spec. educ. class	24	\$14,117	\$9,462 - 27,098
Reg. Classes - parttime resource room	1	11,234	
Spec. classes - itinerant speech, vision and hearing aid	1	864	
Spec. classes - reg. class for nonacademic work	1	11,234	
Spec. classes - reg. class for selected academic work	1	12,848	
Itinerant	34	10,905	8,835 - 19,445

Providing regular class children with speech, vision and hearing aid is the most economical method reported. The cost reported only represents the additional cost for this service.

Visually Impaired Delivery Systems Costs Per Class

<u>Type of Delivery System</u>	<u>No. Classes Reported</u>	<u>Average</u>	<u>Range</u>
Full-time self- contained spec. educ. class	12	\$16,608	\$12,608 - 23,201
Reg. classes - parttime resource room	1	13,316	
Spec. classes - reg. class for selected academic work	1	13,316	
Itinerant	42	10,917	2,570 - 15,968

The self-contained delivery system for the visually impaired is the most expensive, but the itinerant program is used most frequently.

Speech and Language Impaired Delivery Systems Costs Per Class

<u>Type of Delivery System</u>	<u>No. Classes Reported</u>	<u>Average</u>	<u>Range</u>
Full-time self- contained spec. educ. class	2	\$16,229	\$9,302 - 23,155
Spec. classes - reg. class for nonacademic work	1	10,625	
Itinerant	38	11,550	8,280 - 19,034

The itinerant delivery system is the most frequently reported delivery system. Costs are reported as a caseload cost. Teacher caseloads normally range from 80 to 90 pupils instructed at least once a week for 45 minutes or 40 to 45 children per clinician instructed twice a week. The total number of children does not exceed 100 per clinician.

Gifted and Talented Delivery Systems Costs Per Class

<u>Type of Delivery System</u>	<u>No. Classes Reported</u>	<u>Average</u>	<u>Range</u>
Full-time self- contained spec. educ. class	4	\$10,348	\$ 9,403 - 11,756
Reg. classes - parttime resource room	11	15,255	9,489 - 30,314
Spec. classes - itinerant speech, vision and hearing aid	1	13,618	
Spec. classes - reg. class for nonacademic work	3	10,890	9,119 - 11,776
Reg. classes - consultant or helping teacher available	5	20,704	8,725 - 32,454
In-home instruction	1	9,856	
Itinerant	4	13,857	9,914 - 24,208

Gifted and talented delivery systems had the highest average cost of all the categories reported--\$20,704 for a regular class with a consultant or helping teacher available.

What Are the Minimum Costs for Effective Programs?

Minimum costs for a program as a specific dollar amount could not be determined. Teacher salaries are set at the negotiating table and vary with experience. A big factor in cost is the size of the class. In special education, state guidelines require a minimum class size and also set a maximum by exceptionality as follows:

1. Elementary SED

Self-contained class size - five to eight

Secondary SED

Self-contained class size - eight to 12

Resource rooms - eight to 12

Paraprofessionals may be employed in self-contained elementary classes when the size of the full-time class is maintained at a minimum of seven ADM and when the diversity and severity of emotional problems warrant the use of paraprofessionals.

2. Brain Injured

Class size - minimum of five pupils; optimum class size is eight. A maximum of 12 is allowed only when the group presents minimum management problems.

Resource room - minimum of six pupils

A paraprofessional may be employed under specific conditions:

- . Full-time class exceeds five

- . Resource room exceeds 15 ADM

3. Physically Handicapped

Full-time program

Class size - minimum of eight and maximum of 12; the profoundly handicapped have no minimum number.

An aide normally is permitted when five or more are enrolled, or when three severely handicapped students are enrolled.

4. Elementary EMR

Class size - minimum of 10 and a maximum of 18

Secondary EMR

Class size - in half-day class/half-day work program, minimum of 15 in ADM and maximum of 18.

Homeroom diagnostic with integrated activities on a release-time basis - 15 minimum in ADM; maximum of 20.

Full-time homeroom - minimum of 10 in ADM; maximum of 18.

Resource room - minimum of 15 in ADM; maximum of 30. No more than 15 are allowed in the room at one time.

5. Elementary and Secondary TMR

Class size - minimum of seven and maximum of 18

A paraprofessional or teacher's aide is permissible or required under certain conditions:

- . An aide is permissible when class size is more than eight but less than 15.
- . An aide must be employed when class size is 15 or more.

One could conclude that the minimum cost for each category of exceptionality would result when all classes would enroll a maximum number of pupils; then fewer classes would result in fewer teachers and classrooms, with savings to the districts and the state. The wide range of reported costs is reflected in Tables 29 and 30, pages 66 and 67.

Special education cost indices were developed to indicate how much more, on the average, it costs to provide special education compared to regular education. In order to obtain comparable data, costs of transportation, capital outlay and debt service were deducted from 1974-75 regular education total costs.¹ This resulted in statewide regular education ADM costs of \$951 for elementary, \$1,273 for secondary and \$1,191 for total which were used in preparing indices for IU special education costs.²

Special Education Costs Indices

Exceptionality	Elementary Indices	Secondary Indices	Total Indices
EMR	2.38	1.66	1.83
TMR	3.43	2.00	2.50
SED	4.45	2.87	3.41
PH	3.64	3.25	3.08
BI	3.53	1.82	2.67
S & PMR ³	3.52	2.71	2.83
Gifted	3.32	1.58	2.10
Detention	-	2.30	2.43
Vision	8.25	4.14	6.03
Hearing	7.11	4.00	5.51
Speech	6.62	5.56	5.33

¹Source: Bureau of Information Systems, Division of Statistics, Calculator, Vol. 17, No. 8

²Source: Bureau of Information Systems, DEAS 1340

³S & PMR equals Severely and Profoundly Mentally Retarded

Special Education Research Study

Table 1

Fall 1975 Social Age Scores, Socially and Emotionally Disturbed Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
1 or less	5.7 (11)	7.6 (24)	8.5 (25)	7.8 (41)	10.0 (37)	11.5 (29)	11.5 (20)	14.1 (17)	15.5 (22)	15.3 (27)	16.8 (14)	18.7 (13)	10.9 (280)
2	-	7.0 (4)	8.9 (8)	8.9 (10)	10.9 (10)	10.5 (10)	10.9 (5)	11.5 (10)	15.0 (10)	15.0 (12)	13.2 (13)	14.4 (9)	11.5 (101)
3	-	-	8.9 (2)	7.8 (4)	8.1 (7)	10.9 (8)	13.5 (2)	11.2 (7)	15.8 (10)	15.3 (4)	13.5 (5)	15.0 (4)	11.5 (53)
4	-	-	14.4 (1)	-	12.9 (3)	10.8 (1)	11.8 (5)	13.5 (7)	14.7 (6)	-	13.8 (4)	18.5 (4)	14.1 (31)
5	-	-	-	-	14.4 (1)	-	10.9 (3)	10.6 (4)	17.5 (3)	12.6 (1)	-	18.0 (1)	12.3 (13)
6	-	-	-	-	-	-	-	18.0 (1)	13.8 (1)	16.3 (1)	17.0 (1)	18.3 (1)	16.5 (5)
7	-	-	-	-	-	-	-	-	12.9 (4)	17.5 (2)	-	17.0 (1)	15.0 (7)
8	-	-	-	-	-	-	-	-	-	15.0 (1)	17.0 (1)	19.0 (2)	15.5 (4)
9	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	13.2 (2)	13.2 (2)
11	-	-	-	-	-	-	-	-	-	-	18.7 (1)	-	18.7 (1)
Total	5.7 (11)	7.5 (28)	8.6 (36)	9.5 (55)	10.1 (58)	11.0 (48)	11.5 (35)	12.6 (46)	15.0 (56)	15.5 (48)	15.0 (39)	16.8 (37)	(497)

IQ	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	6.3 (4)	6.6 (10)	8.9 (11)	9.0 (20)	8.8 (20)	10.9 (16)	11.3 (17)	12.3 (22)	11.3 (27)	16.5 (17)	16.0 (10)	16.5 (15)	11.2 (189)
90-99	4.5 (1)	6.5 (3)	7.9 (9)	8.0 (14)	10.4 (19)	10.4 (12)	11.8 (6)	11.8 (14)	15.3 (5)	15.3 (12)	15.5 (5)	18.0 (10)	11.0 (110)
100-109	5.6 (2)	7.9 (5)	9.0 (8)	10.1 (9)	11.3 (8)	10.9 (5)	13.2 (3)	15.8 (6)	17.3 (6)	17.3 (8)	15.5 (8)	13.8 (2)	11.7 (70)
110-119	-	7.2 (3)	9.5 (4)	10.8 (3)	11.0 (5)	12.9 (5)	11.3 (3)	13.8 (1)	15.8 (5)	12.9 (4)	11.7 (1)	19.5 (5)	12.0 (39)
120-129	6.0 (1)	10.9 (2)	11.7 (1)	10.0 (1)	-	11.3 (3)	-	-	16.8 (2)	13.2 (1)	19.7 (2)	-	12.3 (13)
>129	-	-	-	12.6 (1)	-	16.0 (1)	-	-	-	-	-	-	14.4 (2)
Total	5.7 (8)	7.5 (23)	8.6 (33)	9.5 (48)	10.1 (52)	11.0 (42)	11.5 (29)	12.6 (43)	15.3 (45)	15.5 (42)	15.0 (26)	16.8 (32)	(423)

IQ	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
<90	10.6 (90)	11.0 (36)	11.2 (23)	11.3 (18)	12.6 (6)	16.8 (5)	14.1 (4)	15.0 (3)	-	13.2 (2)	18.7 (1)	-	11.2 (188)
90-99	10.8 (63)	11.0 (24)	10.9 (12)	15.5 (4)	15.0 (3)	17.8 (2)	13.2 (1)	16.5 (1)	-	-	-	-	11.0 (110)
100-109	11.0 (39)	11.5 (20)	14.4 (3)	15.8 (3)	19.0 (1)	15.5 (3)	21.0 (1)	-	-	-	-	-	11.7 (70)
110-119	12.6 (25)	10.9 (6)	13.8 (5)	10.0 (1)	10.8 (1)	-	12.6 (1)	-	-	-	-	-	12.0 (39)
120-129	12.0 (8)	15.5 (2)	11.8 (2)	10.8 (1)	-	-	-	-	-	-	-	-	12.3 (13)
>129	14.4 (2)	-	-	-	-	-	-	-	-	-	-	-	14.4 (2)
Total	11.0 (227)	11.3 (88)	11.5 (43)	14.1 (27)	12.6 (11)	16.5 (10)	15.0 (7)	15.5 (6)	-	13.2 (2)	18.7 (1)	-	(422)

Special Education Research Study

Table 2

Fall 1975 Reading Grade Equivalent Scores, Socially and Emotionally Disturbed Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												
	6 or less	7	8	9	10	11	12	13	14	15	16	17	Total
1 or less	1.19 (11)	2.22 (24)	2.60 (25)	3.12 (39)	3.78 (37)	4.54 (29)	4.46 (20)	5.07 (17)	6.89 (20)	7.72 (27)	9.94 (13)	8.16 (11)	4.62 (273)
2	-	1.85 (4)	3.16 (8)	2.24 (10)	3.23 (10)	4.61 (10)	2.38 (5)	5.64 (10)	5.71 (9)	6.40 (11)	9.69 (13)	8.60 (9)	5.31 (99)
3	-	-	2.65 (2)	2.63 (4)	4.33 (7)	4.06 (8)	5.00 (2)	4.40 (6)	5.31 (10)	4.98 (4)	7.42 (5)	6.53 (3)	4.80 (51)
4	-	-	4.60 (1)	-	4.07 (3)	1.70 (1)	4.84 (5)	6.16 (7)	5.45 (6)	-	5.83 (4)	6.40 (4)	5.66 (31)
5	-	-	-	-	2.80 (1)	-	6.03 (3)	5.48 (4)	5.67 (3)	1.50 (1)	-	6.80 (1)	5.24 (13)
6	-	-	-	-	-	-	6.80 (1)	2.40 (1)	4.22 (6)	1.70 (1)	4.20 (1)	-	4.04 (10)
7	-	-	-	-	-	-	-	5.78 (4)	12.05 (2)	-	6.60 (1)	-	7.69 (7)
8	-	-	-	-	-	-	-	-	2.20 (1)	-	8.60 (2)	-	6.47 (3)
9	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	7.50 (2)	-	7.50 (2)
11	-	-	-	-	-	-	-	-	-	-	2.60 (1)	-	2.60 (1)
Total	1.19 (11)	2.16 (28)	2.76 (36)	2.92 (53)	3.75 (58)	4.63 (48)	4.48 (35)	5.35 (45)	5.99 (53)	6.72 (52)	8.64 (37)	7.71 (34)	490

IQ	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	1.08 (4)	1.26 (10)	2.50 (11)	2.92 (19)	2.71 (20)	3.66 (16)	3.84 (17)	5.04 (22)	5.29 (27)	4.98 (17)	7.66 (8)	6.74 (13)	4.15 (184)
90-99	1.40 (1)	1.43 (3)	2.10 (9)	2.54 (14)	3.50 (19)	4.36 (12)	4.62 (6)	4.66 (14)	4.76 (5)	6.87 (12)	6.32 (5)	7.81 (9)	4.39 (109)
100-109	0.90 (2)	2.26 (5)	3.13 (8)	3.23 (9)	5.46 (8)	6.82 (5)	4.93 (3)	6.75 (6)	6.62 (6)	8.64 (7)	10.00 (8)	9.10 (2)	5.78 (69)
110-119	-	3.37 (3)	3.83 (4)	4.67 (3)	6.38 (5)	6.00 (5)	6.17 (3)	-	8.10 (5)	7.55 (6)	8.90 (1)	9.82 (5)	6.54 (38)
120-129	2.20 (1)	5.20 (2)	5.00 (1)	3.00 (1)	-	5.53 (3)	-	-	9.75 (2)	9.30 (1)	12.15 (2)	-	6.95 (13)
>129	-	-	-	5.00 (1)	-	5.70 (1)	-	-	-	-	-	-	5.35 (2)
Total	1.19 (8)	2.16 (23)	2.76 (33)	2.92 (47)	3.75 (52)	4.63 (42)	4.48 (29)	5.35 (42)	5.99 (45)	6.72 (41)	8.64 (24)	7.71 (29)	(415)

IQ	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
	3.66 (87)	4.18 (36)	4.04 (21)	5.11 (18)	6.03 (6)	4.42 (5)	5.15 (4)	5.75 (2)	-	7.50 (2)	2.60 (1)	-	4.15 (182)
<90	4.00 (62)	5.16 (24)	4.28 (12)	6.43 (4)	3.33 (3)	2.95 (2)	7.30 (1)	7.90 (1)	-	-	-	-	4.39 (109)
90-99	5.29 (39)	6.35 (19)	6.40 (3)	5.33 (3)	7.30 (1)	4.13 (3)	16.80 (1)	-	-	-	-	-	5.78 (69)
100-109	6.27 (25)	6.37 (6)	7.43 (4)	7.50 (1)	7.30 (1)	-	9.10 (1)	-	-	-	-	-	6.54 (38)
110-119	7.14 (8)	8.30 (2)	3.35 (2)	9.70 (1)	-	-	-	-	-	-	-	-	6.95 (13)
120-129	5.35 (2)	-	-	-	-	-	-	-	-	-	-	-	5.35 (2)
>129	4.62 (223)	5.31 (87)	4.80 (42)	5.66 (27)	5.24 (11)	4.04 (10)	7.69 (7)	6.47 (3)	-	7.50 (2)	2.60 (1)	-	413
Total													

Special Education Research Study

Table 3

Fall 1975 Spelling Grade Equivalent Scores, Socially and Emotionally Disturbed Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.		By Chronological Age											Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
1 or less	1.08 (11)	2.84 (24)	2.27 (25)	2.90 (39)	3.49 (37)	3.95 (29)	3.73 (20)	4.22 (17)	5.83 (20)	6.70 (27)	8.66 (13)	6.77 (11)	4.03 (273)
2	-	1.60 (4)	2.61 (8)	2.12 (10)	2.57 (10)	4.32 (10)	3.58 (5)	4.81 (10)	5.11 (19)	6.05 (11)	8.21 (13)	7.62 (9)	4.72 (99)
3	-	-	2.10 (2)	2.35 (4)	4.01 (7)	3.55 (8)	6.65 (2)	3.72 (5)	4.90 (10)	4.68 (4)	6.48 (5)	4.80 (4)	4.34 (51)
4	-	-	5.20 (1)	-	2.90 (3)	10.90 (1)	3.88 (5)	4.66 (7)	4.57 (6)	-	4.55 (4)	4.08 (4)	4.47 (31)
5	-	-	-	-	2.70 (1)	-	5.37 (3)	4.75 (4)	4.60 (3)	2.60 (1)	-	4.60 (1)	4.52 (13)
6	-	-	-	-	-	-	6.50 (1)	2.60 (1)	2.60 (1)	3.60 (6)	2.60 (1)	4.90 (1)	3.82 (11)
7	-	-	-	-	-	-	-	-	5.35 (4)	8.85 (2)	-	6.80 (1)	6.56 (7)
8	-	-	-	-	-	-	-	-	-	3.30 (1)	-	7.30 (2)	5.97 (3)
9	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	5.80 (2)	5.80 (2)
11	-	-	-	-	-	-	-	-	-	-	3.70 (1)	-	3.70 (1)
Total	1.08 (11)	1.80 (28)	2.39 (36)	2.71 (53)	3.35 (58)	4.07 (48)	4.00 (36)	4.47 (44)	5.22 (53)	5.96 (52)	7.47 (37)	6.32 (35)	(491)

IQ	By Chronological Age											Total	
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	1.00 (4)	1.09 (10)	2.59 (11)	2.80 (19)	2.56 (20)	2.96 (16)	3.74 (17)	4.39 (22)	4.57 (27)	4.33 (17)	6.67 (8)	5.06 (14)	3.65 (185)
90-99	1.40 (1)	1.53 (3)	1.86 (9)	2.42 (14)	3.09 (19)	4.25 (12)	4.02 (6)	3.53 (13)	4.40 (5)	5.85 (12)	5.32 (5)	6.28 (9)	3.79 (108)
100-109	0.90 (2)	2.08 (5)	2.76 (8)	3.00 (9)	4.83 (8)	5.84 (5)	5.27 (3)	6.28 (6)	5.45 (6)	7.81 (7)	7.83 (8)	8.80 (2)	5.08 (69)
110-119	-	2.40 (3)	2.25 (4)	3.90 (3)	5.16 (5)	5.22 (5)	4.00 (3)	-	6.54 (5)	6.95 (4)	8.40 (1)	8.28 (5)	5.32 (38)
120-129	1.80 (1)	3.25 (2)	4.70 (1)	2.70 (1)	-	5.87 (3)	-	-	8.60 (2)	7.20 (1)	10.10 (2)	-	5.99 (13)
>129	-	-	-	3.00 (1)	-	4.20 (1)	-	-	-	-	-	-	3.60 (2)
Total	1.08 (8)	1.80 (23)	2.39 (31)	2.71 (47)	3.35 (52)	4.07 (42)	4.00 (29)	4.47 (41)	5.22 (45)	5.96 (41)	7.47 (24)	6.32 (30)	(415)

IQ	By Years in Special Education											Total	
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
<90	3.25 (87)	4.02 (36)	3.59 (22)	4.08 (18)	4.82 (6)	3.50 (5)	4.95 (4)	5.25 (2)	-	5.80 (2)	3.70 (1)	-	3.65 (183)
90-99	3.55 (62)	4.23 (24)	3.69 (11)	5.03 (4)	3.43 (3)	3.75 (2)	3.30 (1)	7.40 (1)	-	-	-	-	3.79 (108)
100-109	4.60 (39)	5.54 (19)	6.47 (3)	4.37 (3)	5.50 (1)	4.40 (3)	14.40 (1)	-	-	-	-	-	5.08 (69)
110-119	4.99 (25)	5.47 (6)	6.78 (4)	4.70 (1)	4.30 (1)	-	8.40 (1)	-	-	-	-	-	5.32 (38)
120-129	5.54 (8)	8.00 (2)	3.35 (2)	10.90 (1)	-	-	-	-	-	-	-	-	5.99 (13)
>129	3.60 (2)	-	-	-	-	-	-	-	-	-	-	-	3.60 (2)
Total	4.03 (223)	4.72 (87)	4.34 (42)	4.47 (27)	4.52 (11)	3.82 (10)	6.56 (7)	5.97 (3)	-	5.80 (2)	3.70 (1)	-	(413)

Special Education Research Study

Table 4

Fall 1975 Arithmetic Grade Equivalent Scores, Socially and Emotionally Disturbed Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												
	6 or less	7	8	9	10	11	12	13	14	15	16	17	Total
1 or less	1.01 (11)	2.01 (24)	2.54 (25)	3.23 (39)	3.61 (37)	4.23 (29)	3.87 (20)	4.31 (17)	4.98 (20)	6.05 (27)	8.65 (13)	7.38 (11)	4.07 (273)
2	-	2.05 (4)	2.50 (8)	2.72 (10)	3.32 (10)	4.13 (10)	2.86 (5)	4.43 (10)	4.94 (9)	5.52 (11)	7.03 (13)	7.08 (9)	4.57 (99)
3	-	-	2.70 (2)	2.75 (4)	3.16 (7)	3.51 (8)	4.20 (2)	4.57 (6)	4.46 (10)	5.33 (4)	6.66 (5)	4.98 (4)	4.26 (52)
4	-	-	5.30 (1)	-	3.70 (3)	6.70 (1)	3.06 (5)	4.53 (7)	4.53 (6)	-	5.30 (4)	6.60 (4)	4.67 (31)
5	-	-	-	-	3.60 (1)	-	4.11 (1)	4.15 (4)	4.93 (3)	2.30 (1)	-	4.40 (1)	4.21 (13)
6	-	-	-	-	-	-	-	6.70 (1)	4.20 (1)	5.50 (6)	4.40 (1)	8.50 (1)	5.41 (10)
7	-	-	-	-	-	-	-	-	4.95 (4)	6.20 (2)	-	10.70 (1)	6.13 (7)
8	-	-	-	-	-	-	-	-	-	3.90 (1)	-	3.15 (2)	3.40 (3)
9	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	6.90 (2)	6.90 (2)
11	-	-	-	-	-	-	-	-	-	-	2.30 (1)	-	2.30 (1)
Total	1.01 (11)	2.02 (28)	2.63 (36)	3.10 (57)	3.55 (58)	4.10 (48)	3.71 (36)	4.44 (45)	4.81 (53)	5.63 (52)	7.16 (37)	6.71 (35)	4.91 (491)

IQ	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	0.70	1.31	2.29	2.80	2.61	3.37	3.27	4.30	4.37	5.18	5.26	5.94	3.68
	(4)	(10)	(11)	(19)	(20)	(16)	(17)	(22)	(27)	(17)	(8)	(14)	(185)
90-99	0.90	2.00	2.56	3.00	3.80	4.05	4.20	3.95	4.44	5.05	5.68	6.87	4.09
	(1)	(3)	(9)	(14)	(19)	(12)	(6)	(14)	(5)	(12)	(5)	(9)	(109)
100-109	0.95	2.78	2.85	3.44	4.21	4.94	4.50	5.62	5.30	6.11	8.71	6.80	4.83
	(2)	(5)	(8)	(9)	(8)	(5)	(3)	(6)	(6)	(7)	(8)	(2)	(69)
110-119	-	2.23	2.80	3.97	4.54	5.22	5.23	-	5.74	6.05	11.30	8.44	5.28
	-	(3)	(4)	(3)	(5)	(5)	(3)	-	(5)	(4)	(1)	(5)	(38)
120-129	2.40	3.75	4.50	5.20	-	4.93	-	-	7.65	8.00	9.85	-	5.95
	(1)	(2)	(1)	(1)	-	(3)	-	-	(2)	(1)	(2)	-	(13)
>129	-	-	-	3.20	-	4.70	-	-	-	-	-	-	3.95
	-	-	-	(1)	-	(1)	-	-	-	-	-	-	(2)
Total	1.01	2.02	2.63	3.10	3.55	4.10	3.71	4.44	4.81	5.63	7.16	6.71	4.16
	(8)	(23)	(33)	(47)	(52)	(42)	(29)	(42)	(45)	(41)	(24)	(30)	(416)

IQ	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
	3.28 (87)	3.51 (36)	3.68 (22)	4.58 (18)	4.63 (6)	5.08 (5)	5.85 (4)	3.40 (2)	-	6.90 (2)	2.30 (1)	-	3.68 (183)
<90	3.85 (62)	4.23 (24)	4.24 (12)	5.35 (4)	3.30 (3)	6.45 (2)	5.70 (1)	3.40 (1)	-	-	-	-	4.09 (108)
90-99	4.52 (39)	5.37 (19)	4.37 (3)	4.37 (3)	6.10 (1)	5.27 (3)	6.70 (1)	-	-	-	-	-	4.83 (69)
100-109	5.11 (25)	5.92 (6)	4.98 (4)	4.70 (1)	5.70 (1)	-	7.10 (1)	-	-	-	-	-	5.28 (38)
110-119	6.18 (8)	6.60 (2)	4.05 (2)	6.70 (1)	-	-	-	-	-	-	-	-	5.95 (13)
120-129	3.95 (2)	-	-	-	-	-	-	-	-	-	-	-	3.95 (2)
>129	4.07 (223)	4.57 (87)	4.26 (43)	4.67 (27)	4.21 (11)	5.41 (10)	6.13 (7)	3.40 (3)	-	6.90 (2)	2.30 (1)	-	4.14 (414)
Total													

Special Education Research Study

Table 5

Fall 1975 Social Age Scores, Brain Injured Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
1 or less	5.4 (11)	7.1 (30)	9.0 (38)	9.7 (39)	10.3 (23)	12.3 (20)	12.9 (44)	14.7 (51)	15.0 (28)	16.8 (6)	-	-	10.8 (290)
2	5.8 (3)	5.6 (6)	8.4 (12)	10.0 (16)	11.0 (19)	10.6 (14)	11.7 (14)	12.9 (6)	16.0 (11)	17.0 (1)	16.5 (1)	19.7 (1)	10.5 (104)
3	-	-	7.9 (5)	9.5 (2)	10.5 (7)	11.7 (10)	13.2 (11)	14.1 (10)	15.8 (7)	17.0 (1)	18.3 (1)	-	12.0 (54)
4	-	-	6.8 (2)	9.8 (3)	9.8 (4)	14.4 (4)	13.8 (4)	15.0 (5)	15.5 (5)	-	19.7 (1)	18.0 (1)	12.0 (29)
5	-	-	-	-	10.8 (2)	7.8 (3)	9.0 (1)	11.0 (1)	16.5 (1)	-	-	-	9.8 (8)
6	-	-	-	-	-	-	11.3 (2)	-	18.0 (1)	17.0 (1)	-	-	14.4 (4)
7	-	-	-	-	-	-	-	15.0 (1)	-	-	-	-	15.0 (1)
Total	5.7 (14)	6.9 (36)	8.8 (57)	9.7 (60)	10.5 (55)	11.3 (51)	12.3 (76)	14.4 (74)	15.5 (53)	16.8 (9)	18.3 (3)	18.8 (2)	(490)

IQ	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	5.1 (3)	6.3 (13)	7.6 (16)	9.0 (21)	10.9 (17)	10.4 (18)	11.3 (34)	14.1 (30)	15.5 (30)	16.5 (2)	18.3 (3)	18.8 (2)	10.8 (189)
90-99	6.0 (5)	6.6 (10)	8.5 (14)	10.1 (19)	10.3 (28)	12.0 (21)	13.2 (28)	15.0 (25)	15.5 (11)	15.5 (3)	-	-	11.0 (164)
100-109	6.1 (6)	7.8 (5)	9.7 (16)	10.8 (10)	10.5 (5)	12.3 (10)	13.8 (9)	15.3 (13)	15.5 (11)	18.7 (2)	-	-	31.2 (87)
110-119	-	7.1 (4)	8.9 (6)	10.9 (3)	10.3 (2)	13.8 (1)	15.0 (3)	13.5 (5)	18.0 (1)	-	-	-	10.5 (25)
120-129	4.3 (1)	8.3 (1)	9.7 (2)	-	11.3 (1)	-	16.0 (1)	-	-	17.3 (2)	-	-	10.5 (8)
>129	-	9.3 (1)	-	-	-	-	-	-	-	-	-	-	9.3 (1)
Total	5.7 (15)	6.9 (34)	8.8 (54)	9.7 (53)	10.5 (53)	11.3 (50)	12.3 (75)	14.4 (73)	15.5 (53)	16.8 (9)	18.3 (3)	18.8 (2)	(474)

IQ	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
<90	10.6 (89)	10.8 (50)	11.8 (20)	11.3 (17)	8.6 (6)	14.4 (4)	15.0 (1)	-	-	-	-	-	10.8 (187)
90-99	10.9 (100)	10.4 (32)	12.3 (20)	13.8 (10)	15.0 (2)	-	-	-	-	-	-	-	11.0 (164)
100-109	11.3 (60)	9.7 (12)	11.5 (12)	14.4 (3)	-	-	-	-	-	-	-	-	11.2 (87)
110-119	10.1 (18)	11.5 (7)	-	-	-	-	-	-	-	-	-	-	10.5 (25)
120-129	9.2 (4)	9.8 (2)	16.5 (2)	-	-	-	-	-	-	-	-	-	10.5 (8)
>129	-	9.3 (1)	-	-	-	-	-	-	-	-	-	-	9.3 (1)
Total	10.8 (271)	10.5 (104)	12.0 (54)	12.0 (30)	9.8 (8)	14.4 (4)	15.0 (1)	-	-	-	-	-	(472)

Special Education Research Study

Table 6

Fall 1975 Reading Grade Equivalent Scores, Brain Injured Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
1 or less	0.90 (11)	1.56 (31)	2.30 (38)	2.49 (39)	3.09 (23)	3.81 (20)	3.79 (44)	4.65 (51)	5.20 (28)	4.18 (6)	-	-	3.32 (291)
2	2.13 (3)	3.50 (5)	2.33 (12)	2.94 (16)	3.06 (19)	3.40 (14)	3.36 (14)	4.40 (6)	3.95 (11)	5.20 (1)	8.10 (1)	5.40 (1)	3.30 (103)
3	-	-	2.48 (5)	2.90 (2)	3.30 (7)	3.35 (10)	4.76 (11)	4.01 (10)	5.09 (7)	4.40 (1)	5.20 (1)	-	3.93 (54)
4	-	-	1.45 (2)	2.43 (3)	1.68 (4)	5.43 (4)	4.40 (4)	4.38 (5)	2.74 (5)	-	6.90 (1)	6.30 (1)	3.59 (29)
5	-	-	-	-	2.80 (2)	2.20 (3)	2.90 (1)	6.80 (1)	2.40 (1)	-	-	-	3.04 (8)
6	-	-	-	-	-	-	1.80 (2)	-	4.50 (1)	3.80 (1)	-	-	2.98 (4)
7	-	-	-	-	-	-	-	3.90 (1)	-	-	-	-	3.90 (1)
Total	1.26 (14)	1.82 (36)	2.29 (57)	2.62 (60)	2.99 (55)	3.64 (51)	3.81 (76)	4.54 (74)	4.63 (53)	4.28 (9)	6.73 (3)	5.85 (2)	(490)

IQ	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	1.57 (3)	1.32 (12)	1.91 (16)	2.16 (21)	2.89 (17)	3.06 (18)	3.43 (34)	4.23 (30)	4.46 (30)	4.00 (2)	6.73 (3)	5.85 (2)	3.29 (188)
90-99	0.86 (5)	1.37 (10)	2.53 (14)	2.68 (19)	2.84 (28)	3.87 (21)	3.73 (28)	4.46 (25)	4.25 (11)	4.80 (3)	-	-	3.31 (164)
100-109	1.52 (6)	2.10 (5)	2.31 (16)	3.00 (10)	3.84 (5)	3.59 (10)	4.71 (9)	5.13 (13)	5.30 (11)	3.90 (2)	-	-	3.64 (87)
110-119	-	1.78 (4)	2.13 (6)	3.87 (3)	3.25 (2)	7.20 (1)	5.33 (3)	5.56 (5)	6.30 (1)	-	-	-	3.81 (25)
120-129	0.80 (1)	4.20 (1)	3.15 (2)	-	2.20 (1)	-	5.40 (1)	-	-	4.15 (2)	-	-	3.40 (8)
>129	-	9.70 (1)	-	-	-	-	-	-	-	-	-	-	9.70 (1)
Total	1.26 (15)	1.82 (33)	2.29 (54)	2.62 (53)	2.99 (53)	3.64 (50)	3.81 (75)	4.54 (73)	4.63 (53)	4.28 (9)	6.73 (3)	5.85 (2)	(473)

IQ	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
<90	3.25 (89)	3.31 (49)	3.79 (20)	2.99 (17)	3.27 (6)	2.98 (4)	3.90 (1)	-	-	-	-	-	3.29 (186)
90-99	3.19 (100)	3.00 (32)	3.87 (20)	4.53 (10)	2.35 (2)	-	-	-	-	-	-	-	3.31 (164)
100-109	3.64 (60)	3.09 (12)	4.13 (12)	3.83 (3)	-	-	-	-	-	-	-	-	3.64 (87)
110-119	3.68 (18)	4.14 (7)	-	-	-	-	-	-	-	-	-	-	3.81 (25)
120-129	2.75 (4)	3.20 (2)	4.90 (2)	-	-	-	-	-	-	-	-	-	3.40 (8)
>129	-	9.70 (1)	-	-	-	-	-	-	-	-	-	-	9.70 (1)
Total	3.32 (271)	3.30 (103)	3.93 (54)	3.59 (30)	3.04 (8)	2.98 (4)	3.90 (1)	-	-	-	-	-	(471)

Special Education Research Study

Table 7

Fall 1975 Spelling Grade Equivalent Scores, Brain Injured Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
1 or less	0.79 (11)	1.43 (31)	2.24 (38)	2.44 (39)	2.79 (23)	3.36 (20)	3.41 (44)	4.02 (51)	4.53 (28)	3.33 (6)	-	-	2.98 (291)
2	1.47 (3)	2.32 (6)	2.24 (12)	2.68 (16)	2.77 (19)	3.19 (14)	3.11 (14)	3.53 (6)	3.17 (11)	4.60 (1)	6.70 (1)	4.60 (1)	2.89 (104)
3	-	-	1.80 (5)	2.65 (2)	3.09 (7)	3.17 (10)	4.22 (11)	3.76 (10)	4.33 (7)	3.50 (1)	3.70 (1)	-	3.50 (54)
4	-	-	0.85 (2)	2.23 (3)	1.71 (4)	3.93 (4)	3.58 (4)	3.90 (5)	2.86 (5)	-	4.00 (1)	3.30 (1)	2.97 (29)
5	-	-	-	-	2.90 (2)	1.93 (3)	2.60 (1)	3.70 (1)	3.30 (1)	-	-	-	2.65 (8)
6	-	-	-	-	-	-	2.20 (2)	-	5.50 (1)	1.30 (1)	-	-	2.80 (4)
7	-	-	-	-	-	-	-	3.70 (1)	-	-	-	-	3.70 (1)
Total	1.05 (14)	1.54 (37)	2.15 (57)	2.50 (60)	2.75 (55)	3.24 (51)	3.43 (77)	3.93 (74)	4.06 (53)	3.27 (9)	4.80 (3)	3.95 (2)	(491)

IQ	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	1.37 (3)	1.02 (13)	1.68 (16)	2.20 (21)	2.56 (17)	2.76 (18)	3.07 (34)	3.86 (30)	3.92 (30)	2.50 (2)	4.80 (3)	3.95 (2)	2.90 (189)
90-99	0.72 (5)	1.32 (10)	2.28 (14)	2.59 (19)	2.74 (28)	3.49 (21)	3.50 (28)	4.06 (25)	4.03 (11)	3.53 (3)	-	-	3.06 (164)
100-109	1.23 (6)	1.76 (5)	2.32 (16)	2.79 (10)	3.24 (5)	3.12 (10)	3.99 (9)	3.97 (13)	4.43 (11)	3.30 (2)	-	-	3.12 (87)
110-119	-	1.70 (4)	2.07 (6)	2.73 (3)	2.85 (2)	6.00 (1)	4.50 (3)	3.74 (5)	4.60 (1)	-	-	-	3.04 (25)
120-129	0.70 (1)	3.50 (1)	3.30 (2)	-	2.00 (1)	-	5.20 (1)	-	-	3.60 (2)	-	-	3.15 (8)
>129	-	7.20 (1)	-	-	-	-	-	-	-	-	-	-	7.20 (1)
Total	1.05 (15)	1.54 (34)	2.15 (54)	2.50 (53)	2.75 (53)	3.24 (50)	3.43 (75)	3.93 (73)	4.06 (53)	3.27 (9)	4.80 (3)	3.95 (2)	(474)

IQ	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
<90	2.95 (89)	2.83 (50)	3.39 (20)	2.58 (17)	2.50 (6)	2.80 (4)	3.70 (1)	-	-	-	-	-	2.90 (187)
90-99	2.99 (100)	2.86 (32)	3.52 (20)	3.56 (10)	3.10 (2)	-	-	-	-	-	-	-	3.06 (164)
100-109	3.13 (60)	2.63 (12)	3.53 (12)	3.20 (3)	-	-	-	-	-	-	-	-	3.12 (87)
110-119	2.90 (18)	3.39 (7)	-	-	-	-	-	-	-	-	-	-	3.04 (25)
120-129	2.75 (4)	2.75 (2)	4.35 (2)	-	-	-	-	-	-	-	-	-	3.15 (8)
>129	-	7.20 (1)	-	-	-	-	-	-	-	-	-	-	7.20 (1)
Total	2.98 (271)	2.89 (104)	3.50 (54)	2.97 (30)	2.65 (8)	2.80 (4)	3.70 (1)	-	-	-	-	-	(472)

Special Education Research Study

Table 8

Fall 1975 Arithmetic Grade Equivalent Scores, Brain Injured Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
1 or less	0.73 (11)	1.81 (31)	2.67 (38)	2.98 (39)	3.44 (23)	4.13 (20)	4.06 (44)	4.49 (51)	4.86 (28)	5.82 (6)	-	-	3.51 (291)
2	1.70 (3)	1.78 (6)	2.58 (12)	2.91 (16)	3.53 (19)	3.87 (14)	4.24 (14)	4.52 (6)	4.05 (11)	8.00 (1)	6.30 (1)	3.90 (1)	3.46 (106)
3	-	-	1.92 (5)	4.05 (2)	3.24 (7)	4.28 (10)	4.64 (11)	4.02 (10)	4.60 (7)	5.20 (1)	6.30 (1)	-	4.00 (54)
4	-	-	1.15 (2)	2.47 (3)	2.23 (4)	4.75 (4)	4.10 (4)	4.02 (5)	4.46 (5)	-	6.50 (1)	2.30 (1)	3.63 (29)
5	-	-	-	-	2.90 (2)	2.20 (3)	2.60 (1)	2.90 (1)	4.40 (1)	-	-	-	2.79 (8)
6	-	-	-	-	-	-	3.65 (1)	-	3.90 (1)	3.90 (1)	-	-	3.78 (4)
7	-	-	-	-	-	-	-	2.90 (1)	-	-	-	-	2.90 (1)
Total	1.11 (14)	1.79 (37)	2.53 (57)	2.97 (60)	3.28 (55)	4.02 (51)	4.10 (76)	4.35 (74)	4.59 (53)	5.78 (9)	6.37 (3)	3.10 (2)	(491)

IQ	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	1.53 (3)	1.52 (13)	2.00 (16)	2.47 (21)	2.72 (17)	3.59 (18)	3.49 (34)	3.93 (30)	4.41 (30)	4.05 (2)	6.37 (3)	3.10 (2)	3.29 (189)
90-99	0.78 (5)	1.77 (10)	2.49 (14)	3.08 (19)	3.44 (28)	3.34 (21)	4.34 (28)	4.38 (25)	4.71 (11)	5.77 (3)	-	-	3.67 (164)
100-109	1.27 (6)	1.82 (5)	2.86 (16)	3.62 (10)	3.64 (5)	4.00 (10)	4.67 (9)	4.89 (13)	4.78 (11)	5.65 (2)	-	-	3.75 (87)
110-119	-	1.90 (4)	2.87 (6)	3.70 (3)	4.30 (2)	5.30 (1)	6.03 (3)	5.48 (5)	6.70 (1)	-	-	-	4.08 (25)
120-129	0.60 (1)	3.60 (1)	2.55 (2)	-	3.20 (1)	-	6.90 (1)	-	-	7.65 (2)	-	-	4.34 (8)
>129	-	3.90 (1)	-	-	-	-	-	-	-	-	-	-	3.90 (1)
Total	1.11 (15)	1.79 (34)	2.53 (54)	2.97 (53)	3.28 (53)	4.02 (50)	4.10 (75)	4.35 (73)	4.59 (53)	5.78 (9)	6.37 (3)	3.10 (2)	(474)

IQ	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
<90	3.31 (89)	3.24 (50)	3.72 (20)	3.22 (17)	2.38 (6)	3.78 (4)	2.90 (1)	-	-	-	-	-	3.29 (187)
90-99	3.61 (100)	3.53 (32)	3.93 (20)	4.16 (10)	4.00 (2)	-	-	-	-	-	-	-	3.67 (164)
100-109	3.72 (60)	3.30 (12)	4.27 (12)	4.13 (3)	-	-	-	-	-	-	-	-	3.75 (87)
110-119	3.72 (18)	5.01 (7)	-	-	-	-	-	-	-	-	-	-	4.08 (25)
120-129	3.95 (4)	3.40 (2)	6.05 (2)	-	-	-	-	-	-	-	-	-	4.34 (8)
>129	-	3.90 (1)	-	-	-	-	-	-	-	-	-	-	3.90 (1)
Total	3.51 (271)	3.46 (104)	4.00 (54)	3.63 (30)	2.79 (8)	3.78 (4)	2.90 (1)	-	-	-	-	-	(472)

Special Education Research Study

Table 9

Fall 1975 Social Age Scores, Physically Handicapped Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
1 or less	4.7 (22)	6.6 (8)	7.1 (4)	6.3 (6)	8.4 (7)	8.6 (4)	9.5 (3)	13.5 (4)	7.0 (3)	-	-	14.1 (4)	7.0 (65)
2	2.4 (2)	3.7 (9)	6.6 (8)	6.9 (10)	2.4 (1)	10.3 (2)	12.0 (1)	9.8 (6)	6.3 (1)	9.3 (1)	16.3 (2)	13.8 (3)	6.9 (46)
3	-	-	1.89 (2)	7.0 (1)	6.5 (4)	9.2 (3)	10.8 (3)	10.1 (4)	9.7 (5)	4.7 (1)	6.8 (1)	13.8 (3)	8.1 (27)
4	-	8.5 (1)	5.2 (1)	7.0 (3)	7.9 (15)	8.0 (7)	7.8 (3)	9.2 (4)	-	3.0 (1)	11.7 (1)	10.5 (4)	8.0 (40)
5	-	-	6.3 (4)	5.8 (2)	7.9 (5)	6.9 (11)	5.7 (5)	7.6 (2)	6.8 (2)	-	-	7.4 (5)	6.4 (36)
6	-	-	-	8.0 (2)	-	11.5 (3)	6.1 (8)	7.8 (7)	10.9 (4)	9.0 (5)	-	17.5 (2)	8.5 (31)
7	-	-	-	-	-	18.0 (1)	5.7 (2)	11.2 (3)	7.1 (8)	8.8 (4)	6.8 (3)	7.4 (3)	7.9 (24)
8	-	-	-	-	-	8.3 (1)	-	12.6 (3)	7.4 (5)	6.9 (3)	8.8 (1)	10.1 (6)	8.8 (19)
9	-	-	-	-	-	-	-	9.7 (1)	4.7 (2)	11.5 (4)	12.6 (3)	4.3 (1)	9.2 (11)
10	-	-	-	-	-	-	-	-	6.1 (3)	6.5 (1)	4.2 (7)	7.9 (8)	6.0 (19)
11	-	-	-	-	-	-	-	16.0 (1)	-	-	4.7 (2)	14.1 (5)	10.6 (8)
12	-	-	-	-	-	-	-	-	-	-	-	7.1 (13)	10.6 (13)
Total	4.4 (24)	5.1 (18)	5.8 (19)	6.8 (24)	7.2 (32)	8.3 (32)	7.3 (25)	10.0 (35)	7.5 (33)	8.3 (20)	7.1 (20)	9.3 (57)	399

IQ	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	3.3 (10)	3.8 (8)	4.7 (12)	5.3 (12)	6.0 (20)	8.5 (19)	7.0 (18)	9.0 (25)	7.5 (23)	8.8 (14)	6.5 (15)	8.9 (46)	7.3 (222)
90-99	6.8 (5)	7.9 (4)	7.7 (2)	5.7 (2)	9.8 (5)	9.7 (7)	6.6 (3)	12.6 (6)	3.7 (2)	9.7 (2)	7.6 (3)	11.8 (2)	8.6 (43)
100-109	4.3 (2)	6.0 (3)	9.2 (4)	7.7 (3)	11.0 (4)	11.5 (2)	9.3 (3)	11.3 (3)	8.5 (4)	6.8 (3)	-	8.0 (2)	8.4 (33)
110-119	5.2 (1)	-	-	10.3 (1)	-	6.5 (1)	-	-	15.5 (2)	3.0 (1)	-	11.3 (2)	8.8 (8)
120-129	8.5 (1)	-	-	-	4.8 (1)	-	-	-	-	-	-	-	6.6 (?)
Total	4.4 (19)	5.1 (15)	5.8 (18)	6.8 (18)	7.2 (30)	8.3 (29)	7.3 (24)	10.0 (34)	7.5 (31)	8.3 (20)	7.1 (18)	9.3 (52)	308

IQ	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
<90	6.1 (31)	5.6 (24)	7.9 (15)	7.0 (20)	6.0 (30)	8.3 (25)	8.4 (18)	8.6 (15)	9.3 (10)	6.3 (15)	10.6 (8)	7.3 (11)	7.3 (222)
90-99	8.8 (15)	9.0 (6)	12.0 (1)	10.0 (7)	10.3 (2)	10.3 (5)	6.0 (2)	8.5 (2)	-	1.89 (2)	-	8.5 (1)	8.6 (43)
100-109	7.0 (6)	8.0 (7)	8.1 (5)	10.8 (6)	10.3 (2)	11.0 (1)	7.9 (2)	10.6 (2)	8.3 (1)	-	-	4.2 (1)	8.4 (33)
110-119	7.5 (2)	8.8 (1)	16.5 (1)	3.0 (1)	6.5 (1)	-	14.4 (1)	-	-	16.0 (1)	-	-	8.8 (8)
120-129	8.5 (1)	-	4.8 (1)	-	-	-	-	-	-	-	-	-	6.6 (2)
Total	7.0 (55)	6.9 (38)	8.1 (23)	8.0 (34)	6.4 (35)	8.6 (31)	7.9 (23)	8.8 (19)	9.2 (11)	6.0 (18)	10.6 (8)	7.1 (13)	308

Special Education Research Study

Table 10

Fall 1975 Reading Grade Equivalent Scores, Physically Handicapped Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
1 or less	1.17 (20)	1.08 (8)	2.45 (4)	2.52 (6)	2.63 (7)	2.50 (4)	3.60 (3)	5.68 (4)	2.20 (3)	-	-	3.98 (4)	2.24 (63)
2	1.00 (1)	0.94 (8)	2.15 (8)	1.75 (8)	-	2.40 (2)	7.10 (1)	6.83 (6)	10.20 (1)	3.70 (1)	10.50 (1)	4.50 (3)	3.62 (40)
3	-	-	0.35 (2)	1.30 (1)	1.98 (4)	4.20 (3)	5.90 (3)	6.23 (4)	7.42 (5)	1.50 (1)	9.10 (1)	2.47 (3)	4.51 (27)
4	-	2.80 (1)	1.40 (1)	5.35 (2)	3.21 (14)	2.73 (7)	2.07 (3)	4.58 (4)	-	5.60 (1)	8.30 (1)	2.88 (4)	3.39 (38)
5	-	-	4.35 (4)	1.90 (1)	3.26 (5)	3.60 (9)	3.02 (5)	5.95 (2)	2.00 (1)	-	-	2.75 (2)	3.53 (29)
6	-	-	-	3.40 (2)	-	2.90 (3)	3.05 (8)	3.86 (7)	2.95 (4)	5.00 (5)	-	5.00 (2)	3.67 (31)
7	-	-	-	-	-	10.50 (1)	6.70 (2)	3.80 (3)	5.16 (8)	6.87 (3)	7.17 (3)	8.85 (2)	6.20 (22)
8	-	-	-	-	-	6.30 (1)	-	3.53 (3)	3.75 (4)	3.40 (2)	7.90 (1)	4.48 (6)	4.32 (17)
9	-	-	-	-	-	-	-	2.60 (1)	1.30 (2)	5.50 (4)	4.65 (2)	6.30 (1)	4.28 (10)
10	-	-	-	-	-	-	-	-	5.37 (3)	1.60 (1)	7.28 (5)	6.30 (8)	6.15 (17)
11	-	-	-	-	-	-	-	7.50 (1)	-	-	4.20 (1)	7.04 (5)	6.70 (7)
12	-	-	-	-	-	-	-	-	-	-	-	7.39 (11)	7.39 (11)
Total	1.16 (21)	1.11 (17)	2.45 (19)	2.49 (20)	2.92 (30)	3.48 (30)	3.79 (25)	5.13 (35)	4.60 (31)	4.82 (18)	7.15 (15)	5.22 (51)	(312)

IQ	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	1.06 (8)	0.81 (8)	1.93 (12)	2.11 (9)	2.41 (18)	3.28 (18)	3.29 (18)	4.26 (25)	3.71 (21)	3.80 (12)	6.25 (11)	4.98 (40)	3.58 (200)
90-99	1.52 (5)	1.40 (4)	2.00 (2)	1.95 (2)	4.00 (5)	3.89 (7)	4.80 (3)	6.50 (6)	4.45 (2)	7.30 (2)	8.75 (2)	9.85 (2)	4.34 (42)
100-109	1.20 (2)	1.97 (3)	4.18 (4)	2.10 (3)	4.85 (4)	4.10 (2)	5.83 (3)	8.27 (3)	8.15 (4)	7.00 (3)	-	11.45 (2)	5.42 (33)
110-119	1.20 (1)	-	-	5.50 (1)	-	7.50 (1)	-	-	9.35 (2)	5.60 (1)	-	9.90 (2)	7.29 (8)
120-129	1.20 (1)	-	-	-	3.30 (1)	-	-	-	-	-	-	-	2.25 (2)
Total	1.16 (17)	1.11 (15)	2.45 (18)	2.49 (15)	2.92 (28)	3.48 (28)	3.79 (24)	5.13 (34)	4.60 (29)	4.82 (18)	7.15 (13)	5.52 (46)	(285)

IQ	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
<90	1.85 (30)	2.85 (21)	3.71 (15)	2.80 (18)	3.19 (24)	3.18 (25)	5.63 (16)	3.32 (13)	3.97 (9)	5.16 (13)	6.70 (7)	6.23 (9)	3.58 (200)
90-99	2.46 (15)	2.92 (5)	6.90 (1)	4.44 (7)	3.50 (2)	6.42 (5)	7.30 (2)	7.10 (2)	-	6.10 (2)	-	12.80 (1)	4.34 (42)
100-109	3.13 (6)	3.76 (7)	8.34 (5)	3.92 (6)	5.70 (2)	2.00 (1)	9.80 (2)	8.05 (2)	7.10 (1)	-	-	12.40 (1)	5.42 (33)
110-119	3.35 (2)	5.10 (1)	7.10 (1)	5.60 (1)	7.50 (1)	-	11.60 (1)	-	-	14.70 (1)	-	-	7.29 (8)
120-129	1.20 (1)	-	3.30 (1)	-	-	-	-	-	-	-	-	-	2.25 (2)
Total	2.41 (54)	3.26 (34)	4.51 (23)	3.39 (32)	3.53 (29)	3.67 (31)	6.20 (21)	4.32 (17)	4.28 (10)	6.15 (16)	6.70 (7)	7.39 (11)	(285)

Special Education Research Study

Table 11

Fall 1975 Spelling Grade Equivalent Scores, Physically Handicapped Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
1 or less	0.90 (18)	0.93 (8)	2.65 (4)	2.40 (6)	2.04 (7)	2.45 (4)	3.77 (3)	4.95 (4)	2.68 (3)	-	-	3.93 (4)	2.07 (61)
2	0.60 (1)	0.59 (7)	2.08 (8)	1.40 (8)	-	3.20 (2)	6.80 (1)	5.73 (6)	10.20 (1)	2.20 (1)	9.30 (1)	5.40 (3)	3.07 (39)
3	-	-	0.70 (1)	0.80 (1)	1.38 (4)	2.77 (3)	5.00 (3)	6.38 (4)	6.66 (5)	1.50 (1)	6.80 (1)	2.83 (3)	4.07 (26)
4	-	1.80 (1)	0.40 (1)	2.80 (2)	2.80 (14)	2.59 (7)	2.10 (3)	3.73 (4)	-	4.30 (1)	6.70 (1)	3.10 (3)	2.88 (37)
5	-	-	3.75 (4)	1.70 (1)	2.76 (5)	3.38 (4)	3.20 (5)	4.30 (2)	2.30 (1)	-	-	1.93 (3)	3.12 (30)
6	-	-	-	2.10 (2)	-	2.46 (3)	2.38 (8)	3.74 (7)	3.23 (4)	3.66 (5)	-	4.00 (2)	3.09 (31)
7	-	-	-	-	-	8.10 (1)	6.80 (1)	3.70 (3)	4.78 (8)	5.57 (3)	5.23 (3)	6.60 (2)	5.11 (21)
8	-	-	-	-	-	5.50 (1)	-	2.47 (3)	3.08 (4)	2.85 (2)	8.10 (1)	4.05 (6)	3.72 (17)
9	-	-	-	-	-	-	-	2.60 (1)	0.20 (2)	5.20 (4)	4.35 (2)	6.30 (1)	3.84 (10)
10	-	-	-	-	-	-	-	5.75 (2)	1.50 (1)	5.64 (7)	5.16 (8)	-	5.21 (18)
11	-	-	-	-	-	-	-	7.60 (1)	-	-	1.20 (1)	5.76 (5)	5.37 (7)
12	-	-	-	-	-	-	-	-	-	-	-	5.74 (11)	5.74 (11)
Total	0.88 (19)	0.83 (16)	2.41 (18)	1.98 (20)	2.43 (30)	3.13 (30)	3.83 (24)	4.52 (35)	4.18 (30)	3.94 (18)	5.65 (17)	4.72 (51)	(308)

IQ	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	0.70 (8)	0.45 (8)	1.76 (11)	1.64 (9)	1.96 (18)	2.87 (18)	2.91 (17)	3.89 (25)	3.23 (21)	3.27 (12)	4.80 (13)	4.08 (41)	3.05 (201)
90-99	1.40 (5)	1.20 (4)	2.40 (2)	1.65 (2)	3.60 (5)	3.84 (7)	4.37 (3)	5.32 (6)	5.50 (1)	5.55 (2)	7.95 (2)	7.65 (2)	3.84 (41)
100-109	0.40 (2)	1.60 (3)	4.28 (4)	2.37 (3)	3.95 (4)	4.20 (2)	5.70 (3)	7.07 (3)	7.55 (4)	5.47 (3)	-	9.30 (2)	4.77 (33)
110-119	1.30 (1)	-	-	4.50 (1)	-	5.30 (1)	-	-	8.00 (2)	4.30 (1)	-	10.45 (2)	6.54 (8)
120-129	1.00 (1)	-	-	-	2.60 (1)	-	-	-	-	-	-	-	1.80 (2)
Total	0.88 (17)	0.83 (15)	2.41 (17)	1.98 (15)	2.43 (28)	3.13 (28)	3.38 (23)	4.52 (34)	4.18 (28)	3.94 (18)	5.65 (15)	4.72 (47)	(285)

IQ	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
<90	1.67 (30)	2.46 (21)	3.42 (14)	2.46 (18)	2.82 (25)	2.71 (25)	4.53 (15)	2.80 (13)	3.73 (9)	4.29 (15)	5.37 (7)	4.59 (9)	3.05 (201)
90-99	2.41 (15)	2.16 (5)	6.30 (1)	3.66 (7)	4.00 (2)	5.08 (5)	6.15 (2)	6.80 (2)	-	7.80 (4)	-	11.60 (1)	3.84 (41)
100-109	2.50 (6)	3.84 (7)	7.60 (5)	3.55 (6)	4.85 (2)	2.60 (1)	7.65 (2)	6.65 (2)	5.20 (1)	-	-	10.20 (1)	4.77 (33)
110-119	2.90 (2)	7.70 (1)	5.80 (1)	4.30 (1)	5.30 (1)	-	10.20 (1)	-	-	13.20 (1)	-	-	6.54 (8)
120-129	1.00 (1)	-	2.60 (1)	-	-	-	-	-	-	-	-	-	1.80 (2)
Total	2.07 (54)	3.07 (34)	4.07 (22)	2.88 (32)	3.12 (30)	3.09 (31)	5.11 (20)	3.72 (17)	3.88 (10)	5.21 (17)	5.37 (7)	5.74 (11)	(285)

Special Education Research Study

Table 12

Fall 1975 Arithmetic Grade Equivalent Scores, Physically Handicapped Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
1 or less	0.98 (21)	1.60 (8)	1.90 (4)	2.23 (6)	2.61 (7)	2.48 (4)	2.33 (3)	4.45 (4)	2.40 (3)	-	-	3.40 (4)	2.00 (64)
2	0.70 (1)	0.80 (9)	1.73 (8)	1.82 (9)	-	2.50 (2)	4.40 (1)	5.70 (6)	6.90 (1)	5.70 (1)	9.50 (1)	3.80 (3)	2.74 (42)
3	-	-	0.70 (2)	1.20 (1)	1.70 (4)	2.73 (3)	6.93 (3)	5.30 (4)	4.96 (5)	1.70 (1)	6.10 (1)	1.95 (2)	3.70 (26)
4	-	1.40 (1)	0.40 (1)	4.05 (2)	2.83 (14)	3.31 (7)	2.73 (3)	3.63 (6)	-	3.90 (1)	5.30 (1)	3.48 (4)	3.15 (38)
5	-	-	2.35 (4)	1.60 (1)	2.72 (5)	3.24 (9)	2.86 (5)	3.20 (2)	2.80 (1)	-	-	2.30 (3)	2.82 (30)
6	-	-	-	2.50 (2)	-	2.43 (3)	2.65 (8)	2.53 (7)	1.93 (4)	2.48 (5)	-	4.35 (2)	2.80 (31)
7	-	-	-	-	-	5.70 (1)	4.90 (1)	1.80 (3)	3.50 (8)	4.83 (3)	5.83 (3)	7.60 (2)	4.34 (21)
8	-	-	-	-	-	5.50 (1)	-	5.10 (3)	1.95 (6)	3.50 (2)	4.90 (1)	3.70 (6)	3.69 (17)
9	-	-	-	-	-	-	-	3.20 (1)	1.50 (2)	6.25 (4)	4.50 (2)	3.90 (1)	4.53 (10)
10	-	-	-	-	-	-	-	-	2.27 (3)	2.20 (1)	7.49 (7)	5.21 (8)	6.74 (19)
11	-	-	-	-	-	-	-	3.40 (1)	-	-	2.60 (1)	5.04 (5)	4.66 (7)
12	-	-	-	-	-	-	-	-	-	-	-	5.26 (11)	5.26 (11)
Total	0.96 (22)	1.24 (18)	1.72 (19)	2.18 (21)	2.61 (30)	3.18 (30)	3.33 (24)	3.99 (35)	3.26 (31)	4.30 (18)	6.31 (17)	4.40 (51)	316

IQ	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17	
<90	0.80 (9)	0.80 (5)	1.28 (12)	1.86 (9)	2.22 (18)	2.71 (18)	2.79 (17)	3.39 (25)	2.48 (21)	3.57 (12)	5.02 (13)	3.94 (40)	2.89 (362)
90-99	1.56 (5)	1.73 (4)	2.50 (2)	2.40 (2)	3.74 (5)	4.64 (7)	3.57 (3)	4.48 (6)	4.85 (2)	5.50 (2)	10.15 (2)	6.90 (2)	5.01 (42)
100-109	0.80 (2)	1.90 (3)	4.53 (4)	2.50 (3)	3.20 (4)	3.90 (2)	6.80 (3)	6.20 (3)	5.63 (4)	6.57 (3)	-	9.60 (2)	5.67 (13)
110-119	0.90 (1)	-	-	3.00 (1)	-	4.50 (1)	-	-	5.60 (2)	3.90 (1)	-	9.25 (2)	5.75 (8)
120-129	1.60 (1)	-	-	-	2.80 (1)	-	-	-	-	-	-	-	2.70 (2)
Total	0.96 (18)	1.24 (15)	1.72 (18)	2.18 (15)	2.61 (28)	3.18 (28)	3.38 (23)	3.99 (34)	3.26 (29)	4.30 (18)	6.31 (15)	4.40 (46)	247

IQ	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12	
<90	1.68 (30)	2.41 (21)	2.95 (14)	2.63 (18)	2.48 (25)	2.50 (25)	3.93 (15)	2.95 (11)	4.20 (9)	4.22 (15)	4.46 (7)	4.33 (9)	2.86 (201)
90-99	2.64 (15)	2.84 (5)	4.90 (1)	4.37 (7)	4.60 (2)	4.46 (5)	5.70 (2)	5.20 (2)	-	9.30 (2)	-	7.10 (1)	4.01 (42)
100-109	2.27 (6)	2.84 (7)	7.04 (5)	3.35 (6)	4.45 (2)	1.90 (1)	7.05 (2)	6.95 (2)	6.50 (1)	-	-	11.80 (1)	4.32 (33)
110-119	1.95 (2)	3.60 (1)	5.90 (1)	3.90 (1)	4.50 (1)	-	5.30 (1)	-	-	14.90 (1)	-	-	5.25 (8)
120-129	1.60 (1)	-	2.80 (1)	-	-	-	-	-	-	-	-	-	2.70 (2)
Total	2.00 (54)	2.74 (34)	3.70 (22)	3.15 (32)	2.82 (30)	2.80 (31)	4.34 (20)	3.69 (17)	4.43 (10)	5.74 (18)	4.46 (7)	5.26 (11)	286

Table 13

Fall 1975 Social Age Scores, Educable Mentally Retarded Sample
(Numbers of Pupils Shown in Parentheses)Years in
Special Ed.

By Chronological Age

	6 or less	7	8	9	10	11	12	13	14	15	16	17 or more	Total
1 or less	7.4 (27)	8.9 (51)	7.4 (20)	8.4 (21)	9.0 (31)	9.8 (22)	11.5 (18)	11.5 (17)	11.7 (19)	12.5 (15)	12.3 (17)	14.0 (10)	8.5 (200)
2	7.8 (2)	8.7 (20)	7.4 (13)	8.4 (31)	8.5 (29)	9.7 (11)	11.5 (13)	11.2 (12)	11.2 (12)	11.7 (12)	11.5 (7)	11.7 (7)	10.1 (201)
3	-	7.8 (1)	8.4 (0)	8.4 (11)	8.6 (18)	9.8 (26)	11.2 (12)	11.2 (10)	11.7 (11)	11.2 (12)	11.5 (7)	11.7 (11)	11.7 (130)
4	-	-	-	7.4 (1)	8.6 (2)	9.5 (2)	11.2 (12)	11.7 (12)	11.7 (12)	11.7 (12)	11.5 (11)	11.7 (11)	11.7 (130)
5	-	-	8.4 (1)	11.4 (2)	11.2 (12)	11.2 (12)	11.2 (12)	11.2 (12)	11.2 (12)	11.2 (12)	11.2 (12)	11.2 (12)	11.2 (12)
6	-	-	-	-	11.2 (2)	11.2 (2)	11.2 (2)	11.2 (2)	11.2 (2)	11.2 (2)	11.2 (2)	11.2 (2)	11.2 (2)
7	-	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-	-
12 or more	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	7.4 (42)	8.9 (72)	7.4 (20)	8.4 (130)	9.0 (150)	9.8 (152)	11.5 (174)	11.5 (190)	11.7 (180)	12.5 (175)	12.3 (175)	14.0 (200)	11.7 (1400)

By Chronological Age

	6 or less	7	8	9	10	11	12	13	14	15	16	17 or more	Total
<50	6.1 (2)	-	7.4 (1)	7.4 (1)	8.4 (2)	7.6 (3)	9.2 (3)	10.5 (3)	10.5 (5)	11.5 (5)	11.5 (5)	11.5 (5)	9.0 (20)
50-54	7.4 (2)	7.4 (1)	7.4 (1)	7.4 (1)	7.4 (1)	7.4 (1)	7.4 (1)	7.4 (1)	7.4 (1)	7.4 (1)	7.4 (1)	7.4 (1)	7.4 (1)
55-59	7.4 (4)	7.4 (4)	7.4 (4)	7.4 (4)	7.4 (4)	7.4 (4)	7.4 (4)	7.4 (4)	7.4 (4)	7.4 (4)	7.4 (4)	7.4 (4)	7.4 (4)
60-64	7.4 (6)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)
65-69	7.4 (10)	7.4 (14)	7.4 (14)	7.4 (14)	7.4 (14)	7.4 (14)	7.4 (14)	7.4 (14)	7.4 (14)	7.4 (14)	7.4 (14)	7.4 (14)	7.4 (14)
70-74	7.4 (10)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)
75-79	7.4 (6)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)	7.4 (12)
>79	7.4 (2)	7.4 (6)	7.4 (6)	7.4 (6)	7.4 (6)	7.4 (6)	7.4 (6)	7.4 (6)	7.4 (6)	7.4 (6)	7.4 (6)	7.4 (6)	7.4 (6)
Total	7.4 (43)	7.4 (66)	7.4 (82)	7.4 (131)	7.4 (150)	7.4 (142)	7.4 (143)	7.4 (178)	7.4 (178)	7.4 (181)	7.4 (175)	7.4 (213)	7.4 (1684)

By Years in Special Education

IQ	1 or less	2	3	4	5	6	7	8	9	10	11	12 or more	Total
<50	10.0 (5)	7.4 (3)	8.0 (3)	7.4 (3)	9.3 (3)	8.3 (3)	13.2 (1)	-	12.0 (2)	15.0 (2)	11.2 (1)	-	9.0 (12)
50-54	7.4 (2)	7.4 (11)	7.4 (5)	7.4 (8)	8.0 (9)	10.5 (4)	10.8 (10)	11.7 (6)	11.8 (2)	11.8 (3)	11.8 (1)	11.8 (1)	11.8 (63)
55-59	7.4 (10)	9.0 (11)	9.5 (11)	9.5 (16)	10.3 (18)	11.0 (13)	12.6 (23)	12.0 (17)	12.3 (2)	12.3 (5)	12.3 (5)	12.3 (5)	12.3 (104)
60-64	8.4 (15)	9.7 (12)	9.0 (23)	10.0 (32)	10.5 (21)	11.7 (25)	13.8 (23)	13.8 (12)	13.8 (4)	13.8 (8)	13.8 (5)	13.8 (5)	13.8 (124)
65-69	8.4 (63)	10.4 (38)	10.4 (30)	10.9 (28)	11.2 (35)	11.3 (30)	13.2 (24)	14.7 (15)	15.8 (8)	15.8 (8)	15.8 (5)	15.8 (5)	15.8 (104)
70-74	8.4 (74)	10.4 (51)	10.6 (51)	12.0 (45)	12.1 (49)	13.5 (46)	15.0 (31)	15.3 (27)	15.8 (9)	15.8 (5)	15.8 (2)	15.8 (2)	15.8 (104)
75-79	8.4 (69)	10.9 (45)	10.9 (48)	11.7 (51)	13.8 (40)	14.4 (29)	14.1 (29)	15.8 (22)	16.5 (18)	15.0 (6)	12.0 (2)	12.0 (2)	12.0 (104)
>79	14.6 (37)	11.2 (28)	13.8 (17)	11.5 (28)	13.5 (19)	15.0 (22)	12.9 (11)	19.0 (9)	18.5 (9)	17.8 (4)	17.8 (1)	17.8 (1)	17.8 (104)
Total	8.9 (312)	10.0 (223)	10.4 (190)	10.9 (216)	11.3 (199)	12.6 (197)	13.5 (152)	15.0 (108)	16.3 (55)	15.8 (42)	15.8 (21)	15.8 (2)	15.8 (104)

Special Education Research Study

Table 14

Fall 1975 Reading Grade Equivalent Scores, Educable Mentally Retarded Sample
(Numbers of Pupils Shown in Parentheses)

Years in
Special Ed.

By Chronological Age

	6 or less	7	8	9	10	11	12	13	14	15	16	17 or more	Total
1 or less	0.45 (29)	0.90 (30)	1.15 (40)	1.41 (41)	2.19 (51)	2.73 (23)	2.89 (18)	3.91 (16)	4.54 (19)	4.74 (14)	4.71 (12)	5.48 (12)	2.36 (306)
2	1.00 (2)	1.17 (19)	1.28 (41)	1.61 (35)	2.39 (29)	2.38 (10)	3.29 (15)	3.25 (19)	4.18 (17)	4.91 (22)	4.40 (16)	5.44 (7)	2.69 (279)
3	-	1.40 (1)	1.55 (4)	1.80 (51)	1.92 (38)	2.54 (25)	3.11 (19)	3.19 (13)	3.72 (13)	4.05 (7)	4.84 (7)	5.39 (11)	2.66 (197)
4	-	-	-	2.16 (7)	2.14 (67)	2.15 (4)	2.61 (32)	2.97 (26)	3.71 (16)	4.73 (15)	3.88 (14)	4.39 (14)	2.90 (225)
5	-	-	1.50 (1)	1.95 (4)	2.02 (18)	2.61 (4)	3.73 (41)	2.71 (17)	3.24 (16)	3.33 (25)	3.50 (11)	4.44 (23)	2.94 (205)
6	-	-	-	-	3.25 (2)	2.41 (4)	2.80 (2)	3.18 (58)	3.66 (32)	3.82 (19)	4.32 (18)	4.57 (21)	3.48 (151)
7	-	-	-	-	-	-	2.50 (4)	3.50 (32)	3.50 (28)	4.03 (27)	3.08 (16)	4.13 (25)	3.50 (165)
8	-	-	-	-	-	-	1.95 (1)	1.60 (1)	2.78 (11)	3.57 (1)	3.93 (19)	4.24 (31)	3.77 (125)
9	-	-	-	-	-	-	-	-	2.67 (3)	1.70 (8)	3.98 (26)	4.20 (23)	4.00 (60)
10	-	-	-	-	-	-	-	-	4.05 (2)	1.70 (3)	3.71 (14)	4.22 (30)	3.73 (44)
11	-	-	-	-	-	-	-	-	-	-	3.11 (1)	4.19 (20)	4.05 (23)
12 or more	-	-	-	-	-	-	-	-	-	-	-	4.18 (6)	4.18 (6)
Total	0.50 (31)	1.06 (70)	1.11 (96)	1.75 (139)	2.09 (155)	2.41 (149)	2.86 (152)	3.10 (196)	3.65 (186)	4.01 (197)	4.00 (184)	5.44 (226)	1781

By Chronological Age

	6 or less	7	8	9	10	11	12	13	14	15	16	17 or more	Total
1-50	0.45 (2)	-	0.70 (4)	1.30 (3)	2.00 (2)	1.40 (2)	1.97 (3)	2.20 (3)	2.48 (5)	2.00 (1)	-	3.54 (7)	2.07 (32)
50-54	0.10 (3)	0.58 (4)	1.13 (3)	0.98 (6)	1.58 (5)	2.13 (3)	2.64 (5)	2.59 (10)	3.03 (7)	3.13 (6)	4.25 (5)	3.76 (11)	2.47 (68)
55-59	0.50 (1)	0.90 (8)	1.18 (4)	1.57 (8)	1.76 (16)	1.74 (7)	2.40 (8)	2.55 (16)	2.77 (17)	3.33 (17)	3.13 (19)	4.44 (18)	2.67 (117)
60-64	0.26 (5)	0.96 (12)	1.16 (10)	1.31 (16)	1.96 (29)	2.13 (18)	2.42 (20)	2.85 (24)	3.69 (20)	4.49 (32)	3.31 (17)	3.76 (20)	2.74 (221)
65-69	0.73 (8)	1.07 (19)	1.17 (15)	1.69 (22)	2.00 (22)	2.30 (35)	2.98 (25)	3.19 (31)	3.22 (23)	3.30 (21)	4.24 (35)	4.07 (15)	2.80 (292)
70-74	0.51 (8)	0.94 (12)	1.45 (12)	1.98 (40)	2.07 (36)	2.62 (32)	2.89 (30)	2.86 (33)	4.13 (40)	3.91 (49)	4.15 (49)	4.87 (31)	3.10 (329)
75-79	0.83 (3)	1.41 (8)	1.31 (21)	1.89 (25)	2.54 (32)	2.71 (33)	2.85 (31)	3.10 (29)	4.01 (49)	4.10 (41)	4.34 (31)	4.65 (52)	3.32 (375)
>79	1.50 (2)	1.75 (2)	1.15 (6)	2.46 (11)	2.23 (15)	2.60 (9)	3.37 (19)	3.65 (32)	4.15 (17)	5.84 (14)	4.66 (16)	4.70 (39)	3.78 (144)
Total	0.50 (32)	1.06 (65)	1.33 (62)	1.75 (131)	2.09 (155)	2.41 (139)	2.86 (141)	3.10 (178)	3.65 (178)	4.01 (181)	4.00 (175)	5.44 (213)	1570

By Years in Special Education

	1 or less	2	3	4	5	6	7	8	9	10	11	12 or more	Total
1-50	1.56 (5)	1.14 (5)	2.50 (3)	1.80 (3)	2.07 (6)	2.33 (3)	0.60 (11)	-	2.10 (2)	3.47 (3)	4.60 (1)	-	2.07 (32)
50-54	1.40 (7)	1.32 (11)	2.52 (5)	2.29 (8)	2.47 (9)	2.28 (6)	2.69 (10)	3.47 (6)	3.33 (3)	4.50 (3)	4.80 (1)	5.00 (1)	2.47 (68)
55-59	1.35 (16)	2.17 (11)	2.68 (13)	2.23 (16)	2.88 (18)	2.95 (13)	3.39 (23)	3.07 (17)	2.50 (2)	2.80 (5)	3.35 (4)	-	2.67 (138)
60-64	1.88 (14)	2.72 (12)	2.19 (21)	2.27 (36)	2.53 (25)	3.53 (25)	3.62 (23)	3.13 (12)	4.53 (4)	3.63 (8)	3.70 (5)	2.80 (1)	2.74 (226)
65-69	1.98 (61)	2.34 (38)	2.57 (30)	2.87 (28)	2.88 (45)	3.31 (30)	3.18 (24)	3.45 (15)	5.13 (8)	3.73 (8)	3.88 (5)	-	2.80 (292)
70-74	2.15 (77)	2.91 (52)	2.55 (50)	3.36 (45)	3.22 (38)	3.79 (46)	3.72 (31)	3.99 (27)	3.69 (9)	3.94 (5)	4.65 (2)	3.30 (1)	3.10 (383)
75-79	2.81 (64)	2.91 (44)	3.01 (48)	3.38 (51)	3.20 (39)	3.63 (29)	4.07 (29)	4.33 (22)	3.91 (18)	4.80 (6)	3.05 (2)	-	3.12 (352)
>79	4.03 (15)	1.62 (28)	3.03 (17)	3.20 (28)	1.44 (19)	4.28 (22)	3.38 (11)	4.54 (9)	5.07 (9)	5.08 (6)	6.00 (1)	3.33 (3)	3.78 (186)
Total	2.11 (299)	2.69 (221)	2.66 (189)	2.90 (215)	2.94 (197)	3.58 (172)	3.50 (152)	3.77 (108)	4.00 (55)	3.97 (42)	4.05 (21)	4.18 (6)	1677

Special Education Research Study

Table 15

Fall 1975 Spelling Grade Equivalent Scores, Educable Mentally Retarded Sample
(Numbers of Pupils Shown in Parentheses)

Years in
Special Ed.

By Chronological Age

	6 or less	7	8	9	10	11	12	13	14	15	16	17 or more	Total
1 or less	0.49 (28)	0.89 (50)	1.30 (40)	1.84 (41)	2.15 (11)	2.57 (21)	3.14 (15)	3.72 (16)	4.52 (19)	5.52 (14)	6.70 (12)	9.06 (13)	2.25 (305)
2	1.20 (2)	0.77 (18)	1.19 (41)	1.58 (33)	2.15 (29)	2.31 (10)	3.45 (15)	3.72 (19)	3.55 (12)	4.52 (23)	4.74 (16)	4.40 (7)	2.57 (228)
3	-	1.40 (1)	1.10 (4)	1.58 (30)	1.99 (19)	2.38 (25)	3.23 (15)	3.33 (13)	3.74 (13)	4.05 (13)	3.90 (7)	4.83 (11)	2.63 (196)
4	-	-	-	1.84 (3)	2.06 (67)	2.36 (30)	2.81 (32)	3.05 (23)	3.71 (19)	4.13 (15)	3.71 (19)	4.24 (44)	2.87 (254)
5	-	-	1.20 (1)	1.71 (3)	2.14 (18)	2.31 (12)	2.91 (39)	2.83 (15)	3.19 (15)	3.84 (24)	2.52 (11)	4.45 (23)	2.99 (203)
6	-	-	-	-	2.93 (2)	2.15 (3)	3.21 (26)	3.71 (38)	3.81 (32)	3.57 (28)	4.45 (17)	3.75 (21)	3.55 (188)
7	-	-	-	-	-	-	3.04 (3)	3.74 (32)	3.74 (27)	3.84 (23)	3.46 (19)	4.00 (24)	3.54 (161)
8	-	-	-	-	-	-	2.90 (1)	3.20 (1)	3.31 (1)	3.65 (10)	3.84 (17)	4.06 (31)	3.77 (121)
9	-	-	-	-	-	-	-	-	2.57 (3)	3.43 (8)	3.77 (25)	3.87 (23)	3.73 (60)
10	-	-	-	-	-	-	-	-	3.56 (2)	3.87 (3)	3.86 (14)	4.07 (3)	3.95 (54)
11	-	-	-	-	-	-	-	-	-	-	-	3.36 (3)	3.83 (21)
12 or more	-	-	-	-	-	-	-	-	-	-	-	3.77 (6)	3.77 (6)
Total	0.49 (30)	0.87 (69)	1.23 (86)	1.68 (138)	2.16 (185)	2.33 (164)	3.15 (152)	3.72 (195)	3.73 (187)	3.71 (145)	3.93 (181)	4.14 (223)	17.66 (1766)

By Chronological Age

	6 or less	7	8	9	10	11	12	13	14	15	16	17 or more	Total
<50	0.45 (2)	-	0.85 (4)	1.21 (1)	2.15 (2)	1.40 (1)	2.61 (3)	2.64 (3)	3.22 (5)	3.60 (1)	-	4.53 (7)	2.57 (32)
50-54	0.20 (2)	0.30 (4)	0.67 (3)	0.92 (6)	1.48 (5)	2.07 (3)	2.78 (5)	3.85 (10)	2.71 (7)	4.52 (6)	4.63 (5)	3.76 (11)	2.56 (67)
55-59	0.60 (1)	0.40 (8)	1.00 (4)	1.10 (8)	1.79 (14)	1.57 (7)	2.54 (8)	2.98 (16)	2.99 (17)	4.01 (17)	4.01 (18)	3.52 (18)	2.94 (116)
60-64	0.18 (5)	0.86 (11)	1.46 (10)	1.34 (16)	1.88 (29)	2.14 (19)	2.95 (20)	3.44 (24)	3.88 (20)	4.16 (32)	3.45 (17)	3.86 (20)	2.87 (222)
65-69	0.79 (8)	0.94 (19)	1.07 (15)	1.67 (22)	1.99 (22)	2.28 (35)	2.96 (25)	3.37 (31)	3.19 (23)	3.73 (19)	3.88 (36)	4.05 (35)	2.78 (290)
70-74	0.50 (8)	1.06 (12)	1.43 (19)	1.87 (40)	2.24 (16)	2.58 (32)	3.32 (30)	2.96 (33)	3.89 (39)	3.91 (49)	4.10 (49)	4.19 (31)	3.05 (178)
75-79	0.67 (1)	0.91 (8)	1.23 (21)	1.88 (24)	2.51 (32)	2.72 (33)	3.16 (31)	3.44 (29)	3.72 (48)	3.79 (41)	4.09 (31)	4.19 (51)	1.75 (155)
79	1.40 (2)	1.05 (2)	1.30 (6)	2.16 (11)	2.22 (15)	2.91 (9)	3.29 (19)	3.21 (32)	3.92 (17)	4.53 (14)	4.18 (18)	4.09 (9)	1.46 (184)
Total	0.59 (31)	0.87 (64)	1.23 (82)	1.68 (130)	2.16 (155)	2.33 (139)	3.12 (141)	3.27 (178)	3.55 (176)	3.91 (179)	3.93 (174)	4.12 (212)	16.61 (1661)

By Years in Special Education

	1 or less	2	3	4	5	6	7	8	9	10	11	12 or more	Total
<50	1.82 (5)	1.40 (5)	3.00 (3)	2.30 (3)	2.43 (6)	3.33 (3)	1.60 (1)	-	2.80 (2)	4.33 (3)	5.50 (3)	-	2.57 (32)
50-54	1.32 (6)	1.24 (11)	2.22 (5)	2.38 (8)	2.56 (9)	2.80 (6)	3.00 (10)	3.75 (6)	3.61 (3)	4.40 (3)	4.00 (1)	4.00 (1)	2.56 (67)
55-59	1.43 (16)	2.37 (11)	2.62 (13)	2.17 (16)	3.08 (18)	3.13 (11)	3.50 (23)	4.16 (16)	3.13 (2)	3.70 (5)	3.85 (4)	-	2.94 (132)
60-64	1.81 (14)	2.36 (31)	2.14 (23)	2.39 (36)	2.85 (23)	4.12 (25)	3.70 (23)	3.14 (12)	4.40 (6)	3.65 (8)	3.28 (5)	4.00 (1)	2.83 (223)
65-69	1.89 (12)	2.43 (18)	2.60 (39)	2.91 (28)	2.72 (44)	3.43 (29)	3.55 (24)	3.67 (15)	4.09 (8)	3.55 (8)	3.96 (5)	-	2.80 (206)
70-74	2.16 (27)	2.74 (52)	2.65 (50)	3.17 (65)	3.28 (37)	3.61 (56)	3.74 (31)	3.89 (27)	3.51 (9)	4.06 (5)	3.55 (2)	6.10 (1)	3.05 (182)
75-79	2.58 (64)	2.86 (44)	2.95 (47)	3.14 (51)	3.23 (39)	3.53 (29)	3.62 (28)	4.01 (21)	3.80 (18)	4.30 (6)	3.30 (2)	-	3.19 (366)
79	3.63 (35)	3.10 (28)	2.85 (17)	3.09 (28)	3.34 (12)	3.54 (22)	3.45 (11)	3.97 (9)	3.82 (9)	3.98 (4)	4.60 (1)	3.23 (1)	3.19 (186)
Total	2.25 (298)	2.57 (220)	2.63 (188)	2.87 (215)	2.99 (195)	3.58 (171)	3.52 (151)	3.77 (106)	3.73 (55)	3.95 (67)	3.80 (21)	4.97 (6)	16.68 (1668)

Special Education Research Study

Table 10

Fall 1-75 Arithmetic Grade Equivalent Scores, Educable Mentally Retarded Sample
(Numbers of Pupils Shown in Parentheses)

Years in Special Ed.	By Chronological Age												Total
	4 or less	7	8	9	10	11	12	13	14	15	16	17 or more	
<50	0.45 (2)	0.84 (50)	1.12 (29)	2.04 (40)	2.42 (11)	-	2.98 (18)	3.32 (16)	4.24 (16)	4.27 (24)	4.24 (12)	5.00 (13)	2.28 (127)
50-54	1.13 (2)	1.23 (19)	1.36 (41)	1.88 (37)	2.17 (29)	2.87 (16)	2.18 (15)	3.40 (12)	3.74 (12)	4.01 (22)	3.28 (12)	4.41 (11)	2.70 (228)
55-59	-	1.90 (1)	1.93 (5)	1.67 (51)	2.42 (18)	2.78 (25)	2.95 (19)	3.34 (15)	3.81 (13)	4.11 (13)	4.46 (7)	4.52 (11)	3.84 (197)
60-64	-	-	-	1.29 (7)	2.16 (47)	2.93 (40)	2.74 (32)	3.18 (26)	3.74 (19)	4.39 (15)	4.57 (12)	4.92 (14)	3.08 (225)
65-69	-	-	3.74 (1)	2.93 (5)	2.78 (15)	2.88 (11)	3.00 (27)	3.30 (12)	3.83 (16)	3.75 (25)	3.85 (11)	3.17 (23)	3.76 (205)
70-74	-	-	-	-	(2)	-	2.87 (26)	3.14 (18)	3.87 (19)	3.95 (20)	4.23 (18)	4.11 (21)	3.76 (141)
75-79	-	-	-	-	-	2.43 (4)	3.14 (32)	3.35 (54)	4.06 (27)	4.59 (19)	4.59 (25)	4.37 (25)	3.47 (165)
80-84	-	-	-	-	-	-	3.20 (1)	1.53 (11)	2.76 (11)	3.02 (13)	4.43 (13)	3.95 (13)	4.25 (125)
85-89	-	-	-	-	-	-	-	-	3.90 (1)	4.28 (4)	4.44 (4)	4.13 (4)	4.22 (14)
90-94	-	-	-	-	-	-	-	-	3.95 (2)	4.79 (1)	4.36 (1)	4.36 (1)	4.46 (4)
95-99	-	-	-	-	-	-	-	-	-	-	2.57 (1)	4.31 (1)	4.40 (2)
100-104	-	-	-	-	-	-	-	-	-	-	-	4.32 (1)	4.32 (6)
Total	0.61 (31)	0.44 (70)	1.34 (86)	1.94 (137)	2.1 (153)	2.6 (144)	2.92 (152)	3.24 (166)	3.87 (185)	4.03 (193)	4.31 (184)	4.27 (226)	1779

Age	By Chronological Age												Total
	6 or less	7	8	9	10	11	12	13	14	15	16	17 or more	
<50	0.50 (2)	-	0.45 (4)	1.20 (3)	1.75 (2)	2.00 (2)	1.84 (3)	2.30 (3)	1.74 (5)	2.90 (1)	-	2.66 (2)	1.73 (12)
50-54	0.21 (1)	0.60 (6)	0.53 (1)	1.08 (6)	1.36 (3)	2.67 (3)	2.28 (5)	2.02 (10)	2.60 (7)	3.05 (9)	3.36 (6)	3.49 (11)	2.38 (68)
55-59	0.40 (1)	0.64 (8)	0.90 (4)	1.34 (8)	1.56 (11)	2.16 (7)	2.43 (8)	2.57 (16)	2.95 (17)	2.80 (19)	3.73 (19)	4.42 (18)	2.80 (117)
60-64	0.22 (3)	0.39 (12)	1.59 (10)	1.34 (16)	3.04 (16)	2.38 (29)	2.52 (18)	3.19 (20)	3.16 (20)	3.96 (12)	4.05 (17)	4.22 (20)	2.80 (221)
65-69	0.40 (8)	0.92 (14)	1.07 (15)	2.06 (22)	2.33 (22)	2.69 (35)	2.74 (25)	3.11 (31)	3.55 (23)	3.75 (21)	4.07 (35)	4.51 (15)	2.93 (164)
70-74	0.33 (3)	1.04 (12)	1.63 (19)	2.04 (39)	2.50 (36)	3.08 (32)	3.11 (30)	3.25 (31)	3.76 (40)	4.17 (49)	4.73 (49)	4.27 (11)	3.34 (324)
75-79	0.67 (3)	1.44 (8)	1.50 (21)	2.38 (25)	2.88 (32)	3.22 (33)	3.29 (31)	3.37 (29)	4.12 (49)	4.28 (61)	4.52 (31)	5.01 (52)	3.60 (455)
80-84	2.70 (2)	2.20 (2)	1.90 (6)	2.38 (11)	2.84 (15)	3.32 (9)	3.25 (19)	3.82 (32)	4.37 (17)	4.96 (14)	5.36 (18)	5.02 (13)	4.07 (187)
85-89	3.61 (32)	0.99 (65)	1.34 (62)	1.94 (130)	2.35 (155)	2.45 (144)	2.92 (141)	3.23 (178)	3.97 (178)	4.01 (141)	4.31 (175)	4.75 (206)	1672

Age	By Years in Special Education												Total
	1 or less	2	3	4	5	6	7	8	9	10	11	12 or more	
<50	1.14 (5)	0.92 (5)	1.50 (3)	1.09 (3)	2.50 (6)	1.47 (3)	0.40 (1)	-	2.40 (2)	3.37 (3)	2.36 (1)	-	1.54 (32)
50-54	0.79 (7)	1.13 (11)	1.76 (5)	2.25 (8)	2.11 (9)	3.15 (4)	2.42 (10)	3.10 (6)	3.83 (3)	4.80 (1)	4.90 (1)	3.90 (1)	2.38 (68)
55-59	1.16 (16)	1.71 (11)	2.36 (1)	2.13 (16)	2.93 (18)	2.92 (11)	2.98 (23)	3.49 (17)	2.65 (2)	3.68 (5)	4.25 (4)	-	2.62 (198)
60-64	1.65 (14)	2.48 (32)	2.14 (23)	2.45 (36)	2.81 (23)	3.71 (23)	3.37 (12)	4.03 (12)	3.58 (4)	3.98 (8)	5.38 (3)	3.90 (1)	2.80 (225)
65-69	1.79 (16)	2.77 (30)	2.85 (30)	3.04 (28)	2.97 (45)	3.63 (30)	3.75 (24)	4.05 (15)	4.31 (8)	4.11 (8)	4.88 (5)	-	2.95 (292)
70-74	2.26 (77)	2.94 (51)	2.91 (50)	3.57 (45)	3.70 (38)	3.92 (4)	3.82 (31)	4.71 (27)	4.26 (9)	4.80 (5)	5.75 (2)	4.90 (1)	3.45 (183)
75-79	2.70 (66)	3.31 (44)	3.20 (48)	3.59 (51)	4.01 (39)	4.17 (29)	4.18 (22)	4.47 (22)	4.75 (18)	4.98 (6)	3.65 (7)	-	3.36 (522)
80-84	3.67 (55)	3.40 (28)	3.67 (17)	3.58 (28)	3.70 (19)	4.18 (22)	4.40 (11)	5.16 (9)	5.72 (9)	5.48 (4)	4.60 (1)	4.60 (3)	4.02 (146)
85-89	2.28 (294)	2.70 (220)	2.84 (189)	3.08 (215)	3.29 (197)	3.79 (172)	3.65 (152)	4.25 (108)	4.52 (55)	4.35 (42)	4.30 (21)	4.12 (6)	1673

Special Education Research Study

Table 17

Fall 1975 Social Age Scores, Trainable Mentally Retarded Sample
(Numbers of Pupils Shown in Parentheses)

Years in
Special Ed.

By Chronological Age

	6 or less	7	8	9	10	11	12	13	14	15	16	17 or more	Total
1 or less	3.3 (25)	3.7 (8)	3.0 (8)	4.4 (4)	3.8 (6)	7.1 (6)	9.2 (2)	6.8 (5)	5.2 (4)	5.9 (1)	9.7 (1)	7.2 (7)	4.5 (73)
2	3.0 (6)	3.3 (27)	4.3 (13)	5.2 (6)	6.0 (5)	7.3 (5)	7.0 (2)	7.8 (3)	7.4 (5)	6.5 (3)	-	7.7 (20)	5.2 (95)
3	3.5 (2)	3.4 (5)	4.6 (13)	4.3 (21)	4.7 (6)	5.3 (4)	4.6 (4)	6.3 (3)	6.1 (3)	59.5 (5)	8.3 (1)	5.2 (10)	4.8 (81)
4	-	-	3.5 (9)	5.0 (10)	4.5 (14)	4.9 (18)	6.1 (9)	3.5 (4)	6.8 (2)	-	6.8 (5)	7.6 (10)	5.2 (81)
5	-	-	-	5.1 (4)	4.6 (3)	6.1 (14)	5.3 (19)	7.0 (14)	5.3 (3)	6.1 (6)	6.1 (4)	7.8 (10)	6.1 (77)
6	-	-	-	2.5 (1)	3.8 (1)	4.5 (5)	5.3 (20)	7.5 (15)	8.1 (6)	6.4 (6)	7.2 (1)	7.8 (7)	6.3 (64)
7	-	-	-	-	-	-	5.0 (5)	7.2 (12)	5.7 (1)	7.1 (6)	5.6 (2)	6.0 (3)	6.6 (31)
8	-	-	-	-	-	-	-	5.6 (3)	7.1 (18)	9.1 (1)	10.3 (1)	7.4 (7)	7.8 (39)
9	-	-	-	-	-	-	-	4.0 (1)	6.8 (1)	7.5 (1)	7.7 (1)	7.6 (6)	7.4 (13)
10	-	-	-	-	-	-	-	-	-	-	7.2 (6)	7.5 (13)	7.4 (19)
11	-	-	-	-	-	-	-	-	-	-	7.8 (1)	8.3 (23)	8.0 (24)
12 or more	-	-	-	-	-	-	-	-	-	-	-	8.8 (3)	8.8 (35)
Total	2.9 (33)	3.4 (40)	4.0 (41)	4.6 (48)	4.6 (33)	5.1 (50)	5.4 (61)	6.8 (60)	7.1 (45)	7.1 (53)	7.4 (35)	7.8 (151)	652

By Chronological Age

IQ	6 or less	7	8	9	10	11	12	13	14	15	16	17 or more	Total
<30	1.83 (2)	-	2.2 (2)	6.5 (1)	2.2 (2)	2.05 (4)	2.9 (3)	4.6 (3)	4.7 (3)	6.3 (1)	-	5.3 (8)	3.6 (29)
30-34	2.8 (4)	3.6 (5)	2.2 (2)	3.7 (5)	3.6 (5)	3.8 (8)	3.8 (7)	4.6 (3)	5.2 (5)	5.3 (8)	6.5 (6)	6.8 (44)	5.1 (102)
35-39	2.8 (7)	3.5 (7)	4.9 (6)	4.0 (6)	4.3 (12)	4.9 (11)	3.8 (10)	6.8 (9)	6.5 (7)	6.6 (4)	5.9 (6)	8.4 (26)	5.5 (111)
40-44	3.1 (6)	3.3 (4)	4.4 (6)	4.5 (10)	4.3 (5)	4.5 (10)	6.0 (10)	5.7 (9)	7.8 (8)	7.8 (10)	7.8 (12)	8.5 (33)	6.4 (127)
45-49	3.5 (3)	4.3 (3)	4.8 (4)	5.3 (12)	7.6 (3)	5.6 (6)	7.0 (15)	8.0 (13)	8.0 (8)	7.5 (17)	7.8 (5)	8.9 (18)	7.1 (107)
>50	4.3 (8)	4.3 (6)	5.7 (9)	6.4 (7)	6.0 (12)	7.4 (18)	7.4 (11)	7.8 (18)	8.9 (10)	9.8 (9)	9.2 (4)	10.3 (14)	7.4 (126)
Total	2.9 (30)	3.4 (25)	4.0 (29)	4.6 (41)	4.6 (38)	5.1 (57)	5.4 (56)	6.8 (55)	7.1 (41)	7.3 (49)	7.4 (33)	7.8 (143)	597

Years in Special Education

IQ	1 or less	2	3	4	5	6	7	8	9	10	11	12	Total
<30	-	4.5 (2)	4.7 (5)	2.8 (4)	3.4 (2)	3.0 (1)	5.2 (1)	4.5 (2)	6.0 (1)	-	7.6 (1)	5.8 (1)	3.5 (22)
30-34	5.7 (4)	4.9 (14)	4.8 (11)	5.5 (12)	2.8 (6)	4.6 (12)	4.2 (5)	5.1 (5)	7.0 (4)	7.1 (7)	6.9 (9)	7.3 (9)	5.1 (98)
35-39	3.9 (10)	5.9 (17)	4.9 (12)	4.7 (16)	5.5 (15)	5.1 (7)	6.0 (7)	7.5 (5)	6.0 (4)	8.3 (5)	7.5 (2)	9.2 (6)	5.3 (106)
40-44	5.3 (11)	5.0 (15)	3.8 (9)	4.4 (11)	6.9 (18)	6.0 (10)	6.1 (5)	8.4 (11)	7.7 (9)	7.0 (9)	9.8 (7)	9.3 (8)	6.4 (117)
45-49	6.1 (9)	5.7 (12)	6.5 (9)	5.8 (12)	7.4 (19)	7.7 (15)	9.7 (2)	8.3 (8)	7.0 (7)	7.0 (3)	9.8 (4)	11.0 (3)	7.1 (103)
>50	6.4 (15)	7.2 (19)	6.0 (12)	6.8 (15)	6.8 (16)	8.4 (14)	8.8 (9)	10.5 (7)	9.8 (6)	7.8 (1)	9.1 (1)	17.3 (1)	7.4 (118)
Total	4.4 (49)	5.7 (79)	4.8 (58)	5.2 (70)	6.1 (76)	6.3 (59)	6.6 (29)	7.8 (38)	7.4 (31)	7.4 (19)	8.3 (24)	8.8 (32)	564

Special Education Research Study

Table 18

Fall 1975 TMR Profile Scores, Trainable Mentally Retarded Sample
(Numbers of Pupils Shown in Parentheses)Years in
Special Ed.

By Chronological Age

	6 or less	7	8	9	10	11	12	13	14	15	16	17 or more	Total
1 or less	255.12 (25)	213.25 (8)	296.73 (8)	291.75 (4)	352.25 (4)	461.00 (4)	569.00 (2)	509.40 (5)	472.26 (4)	446.00 (1)	428.0 (1)	515.26 (7)	356.71 (73)
2	260.00 (6)	258.11 (27)	311.14 (14)	394.17 (6)	411.80 (5)	529.80 (5)	436.50 (2)	433.07 (3)	477.20 (3)	516.34 (3)	-	564.70 (20)	340.28 (46)
3	255.50 (2)	278.20 (3)	352.85 (13)	408.51 (23)	412.33 (6)	459.25 (4)	336.75 (4)	377.33 (3)	385.33 (4)	384.80 (5)	645.00 (3)	404.30 (10)	387.37 (81)
4	-	-	287.14 (9)	415.00 (10)	377.50 (16)	438.22 (18)	483.11 (9)	361.75 (4)	437.00 (3)	-	461.50 (3)	439.34 (10)	431.41 (29)
5	-	-	-	445.75 (4)	350.00 (3)	457.93 (15)	432.25 (20)	500.93 (14)	431.33 (4)	306.33 (6)	564.25 (4)	461.20 (10)	475.25 (80)
6	-	-	-	248.00 (1)	217.00 (1)	411.40 (5)	434.23 (15)	520.60 (8)	461.50 (6)	564.75 (6)	511.33 (3)	581.79 (7)	443.92 (28)
7	-	-	-	-	-	-	571.40 (5)	345.27 (13)	277.75 (4)	416.80 (8)	415.50 (2)	517.00 (3)	461.77 (24)
8	-	-	-	-	-	-	-	589.67 (3)	374.80 (1)	509.74 (1)	514.75 (2)	564.33 (2)	230.20 (24)
9	-	-	-	-	-	-	-	546.00 (1)	417.00 (1)	471.35 (17)	607.60 (13)	582.25 (4)	531.40 (17)
10	-	-	-	-	-	-	-	-	-	-	467.37 (7)	307.27 (4)	336.44 (27)
11	-	-	-	-	-	-	-	-	-	-	575.00 (1)	528.17 (27)	566.18 (28)
12 or more	-	-	-	-	-	-	-	-	-	-	-	564.75 (46)	350.25 (46)
Total	250.22 (33)	271.65 (36)	315.43 (64)	400.51 (68)	380.75 (153)	435.75 (51)	455.99 (64)	458.62 (63)	479.68 (50)	516.51 (61)	512.27 (40)	575.17 (174)	701 (701)

By Chronological Age

IQ	6 or less	7	8	9	10	11	12	13	14	15	16	17 or more	Total
<30	149.50 (2)	-	160.30 (2)	367.00 (1)	131.00 (2)	246.25 (6)	298.00 (3)	379.33 (3)	416.33 (3)	257.50 (2)	-	350.38 (8)	298.83 (30)
30-34	239.25 (4)	249.80 (5)	174.33 (3)	300.40 (5)	220.29 (7)	311.33 (9)	338.10 (10)	220.00 (6)	275.33 (6)	384.20 (10)	395.78 (9)	479.75 (55)	377.75 (126)
35-39	207.86 (7)	307.57 (7)	375.84 (6)	315.83 (6)	355.42 (12)	417.91 (11)	321.60 (10)	450.11 (9)	491.25 (8)	454.17 (6)	427.14 (7)	618.94 (32)	440.75 (121)
40-44	244.83 (6)	244.00 (6)	339.83 (6)	389.19 (10)	390.75 (4)	399.70 (10)	514.00 (10)	440.11 (9)	495.89 (9)	546.82 (11)	579.23 (11)	621.29 (38)	495.15 (130)
45-49	285.33 (3)	289.33 (3)	384.25 (4)	454.17 (12)	527.33 (3)	492.83 (6)	534.27 (15)	540.69 (13)	544.33 (9)	608.00 (19)	637.80 (5)	639.05 (19)	541.01 (111)
>50	329.50 (8)	354.00 (6)	406.78 (9)	522.71 (7)	515.75 (12)	539.22 (18)	568.91 (11)	511.83 (18)	577.18 (11)	641.56 (9)	699.75 (4)	669.36 (14)	535.27 (127)
Total	250.22 (30)	271.65 (25)	315.43 (30)	400.51 (41)	380.75 (40)	435.75 (58)	455.99 (59)	458.62 (58)	479.68 (46)	516.51 (57)	512.27 (38)	575.17 (166)	701 (648)

Years in Special Education

IQ	1 or less	2	3	4	5	6	7	8	9	10	11	12	Total
<30	-	300.90 (2)	302.30 (5)	245.25 (4)	244.50 (2)	543.00 (1)	365.00 (1)	471.50 (2)	349.00 (2)	-	519.05 (1)	387.37 (3)	798.53 (23)
30-34	373.25 (4)	358.33 (15)	336.18 (11)	370.64 (16)	232.88 (8)	368.21 (14)	335.11 (9)	358.25 (8)	470.60 (5)	437.60 (10)	484.30 (10)	456.24 (17)	377.76 (125)
35-39	340.30 (10)	414.47 (17)	396.08 (12)	409.69 (16)	414.40 (15)	405.00 (7)	476.50 (8)	539.25 (8)	428.50 (4)	612.83 (6)	596.75 (4)	640.11 (9)	440.75 (116)
40-44	407.18 (11)	401.87 (15)	468.67 (9)	373.82 (11)	535.67 (18)	522.36 (11)	423.50 (6)	556.67 (12)	573.30 (10)	604.33 (6)	614.38 (8)	635.63 (8)	499.13 (125)
45-49	441.89 (9)	423.67 (12)	540.22 (9)	539.92 (12)	597.60 (20)	550.40 (15)	611.00 (2)	567.10 (10)	556.88 (8)	581.67 (3)	653.25 (4)	672.67 (3)	541.41 (107)
>50	479.80 (15)	498.00 (19)	481.50 (12)	518.13 (15)	466.50 (15)	616.67 (15)	593.33 (9)	644.43 (7)	696.33 (6)	525.00 (1)	576.00 (1)	749.33 (3)	545.27 (119)
Total	356.51 (49)	390.28 (80)	387.27 (58)	431.51 (72)	476.26 (79)	493.02 (63)	461.30 (35)	530.46 (47)	531.30 (35)	536.50 (26)	565.18 (28)	550.60 (61)	615 (615)

Special Education Research Study

Table 19

EMR Social Maturity Gains - Commonality Analysis Results

<u>Elementary</u>			
Source of Variance	Unique Variance	Per Cent of R^2	Probability Value
1. Costs	0.0118	4.21	0.9605
2. Quality	0.0259	9.19	0.7092
3. Background	0.1579*	56.03	0.0009
1 and 3	0.0160	5.68	
2 and 3	0.0292	10.37	
1, 2 and 3	0.0395	14.03	
Total R^2	0.2818*		0.0201
 <u>Secondary</u>			
1. Costs	0.0429	9.87	0.5125
2. Quality	0.2223*	51.19	0.0010
3. Background	0.0278	6.40	0.0960
1 and 2	0.1321	30.41	
1 and 3	-0.0079	- 1.82	
2 and 3	0.0407	9.37	
1, 2 and 3	-0.0235	- 5.42	
Total R^2	0.4343*		0.0003

Note: R^2 equals multiple correlation coefficient

* statistically significant at indicated probability level

Special Education Research Study

Table 20

EMR Reading Gains - Commonality Analysis Results

<u>Elementary</u>			
Source of Variance	Unique Variance	Per Cent of R^2	Probability Value
1. Costs	0.1620*	84.60	0.0433
2. Quality	0.0118	6.15	0.9236
3. Background	0.0165	8.62	0.2680
1 and 3	0.0038	1.97	
2 and 3	-0.0043	- 2.27	
Total R^2	0.1915		0.1824
<u>Secondary</u>			
1. Costs	0.2408*	73.39	0.0034
2. Quality	0.0236	7.21	0.7376
3. Background	0.0206	6.29	0.1881
1 and 2	0.0290	8.85	
1 and 3	0.0170	5.46	
1, 2 and 3	-0.0041	- 1.26	
Total R^2	0.3281*		0.0073

*Statistically significant at indicated probability level

Special Education Research Study

Table 21

EMR Spelling Gains - Commonality Analysis Results

<u>Elementary</u>			
Source of Variance	Unique Variance	Per Cent of R ²	Probability Value
1. Costs	0.2110*	79.29	0.0085
2. Quality	0.0338	12.69	0.6041
3. Background	0.0241	9.05	0.1623
1 and 2	-0.0170	- 6.40	
1 and 3	0.0058	2.16	
2 and 3	0.0028	1.04	
1, 2 and 3	0.0058	2.16	
Total R ²	0.2661*		0.0314
<u>Secondary</u>			
1. Costs	0.1039	38.58	0.1608
2. Quality	0.0235	8.72	0.7630
3. Background	0.1249*	46.38	0.0029
1 and 2	-0.0093	- 3.46	
1 and 3	0.0185	6.88	
2 and 3	0.0041	1.51	
1, 2 and 3	0.0037	1.38	
Total R ²	0.2693*		0.0352

*Statistically significant at indicated probability level

Special Education Research Study

Table 22

EMR Arithmetic Gains - Commonality Analysis Results

<u>Elementary</u>			
Source Variance	Unique Variance	Per Cent of R ²	Probability Value
1. Costs	0.1095	78.81	0.1947
2. Quality	0.0478	34.45	0.5111
3. Background	0.0000	0.01	0.9751
1 and 2	-0.0184	-13.28	
Total R ²	0.1389		0.4811
<u>Secondary</u>			
1. Costs	0.1045	37.42	0.1599
2. Quality	0.0544	19.48	0.3773
3. Background	0.0954*	34.13	0.0080
1 and 2	0.0224	8.01	
1 and 3	-0.0123	- 4.42	
2 and 3	0.0074	2.63	
1, 2 and 3	0.0077	2.75	
Total R ²	0.2794*		0.0296

*Statistically significant at indicated probability level

Special Education Research Study

Table 23

TMR Social Maturity Gains - Commonality Analysis Results

Elementary

Source of Variance	Unique Variance	Per Cent of R ²	Probability Value
1. Costs	0.1624	29.63	0.1668
2. Quality	0.1189	21.70	0.2114
3. Background	0.0820*	14.96	0.0453
1 and 2	-0.0675	-12.31	
1 and 3	0.2263	41.29	
2 and 3	0.0835	15.23	
1, 2 and 3	-0.0575	-10.50	
Total R ²	0.5481*		0.0155

Secondary

1. Costs	0.0289	8.16	0.9887
2. Quality	0.1543	43.62	0.6367
3. Background	0.1345	38.05	0.1559
1 and 3	0.0066	1.88	
2 and 3	0.0328	9.27	
Total R ²	0.3536		0.7842

*Statistically significant at indicated probability level

Special Education Research Study

Table 24

TMR Performance Profile Gains - Commonality Analysis Results

Elementary

Source of Variance	Unique Variance	Per Cent of R ²	Probability Value
1. Costs	0.3255*	86.08	0.0486
2. Quality	0.0795	21.02	0.5391
3. Background	0.0129	3.40	0.4852
1 and 2	-0.0576	-15.22	
1 and 3	0.0270	7.15	
2 and 3	0.0211	5.58	
1, 2 and 3	-0.0303	- 8.00	
Total R ²	0.3782		0.1901

Secondary

1. Costs	0.0032	1.11	0.9995
2. Quality	0.1046	36.36	0.7040
3. Background	0.0836	29.06	0.2023
1 and 2	0.0784	27.26	
1 and 3	0.0493	17.15	
2 and 3	-0.0374		
1, 2 and 3	0.0059		
Total R ²	0.2876		0.7870

*Statistically significant at indicated probability level

Special Education Research Study

Table 25

SED, BI and PH Social Maturity Gains Commonality Analysis Results

Elementary

Source of Variance	Unique Variance	Per Cent of R ²	Probability Value
1. Costs	0.0615	29.47	0.3922
2. Quality	0.0837	40.11	0.1382
3. Background	0.0349	16.73	0.0840
4. Exceptionality	0.0326	15.60	0.2527
1 and 2	-0.0071	- 3.41	
1 and 3	0.0286	13.70	
2 and 4	-0.0110	- 5.27	
3 and 4	-0.0197	- 9.45	
1, 2 and 3	-0.0042	- 2.03	
1, 2 and 4	0.0190	9.09	
1, 3 and 4	-0.0086	- 4.13	
1, 2, 3 and 4	-0.0034	- 1.65	
Total R ²	0.2087		0.1477

Secondary

1. Costs	0.1411	43.21	0.1149
2. Quality	0.0913	27.94	0.2102
3. Background	0.0122	3.75	0.3738
4. Exceptionality	0.0531	16.25	0.1797
1 and 3	0.0394	12.05	
1 and 4	0.0091	2.78	
2 and 4	-0.0395	-12.10	
3 and 4	-0.0121	- 3.71	
1, 2 and 3	0.0396	12.11	
1, 2 and 4	0.0250	7.64	
1, 3 and 4	-0.0311	- 9.53	
2, 3 and 4	0.0042	1.28	
Total R ²	0.3266		0.0735

Special Education Research Study

Table 26

SED, BI and PH Reading Gains Commonality Analysis Results

<u>Elementary</u>			
Source of Variance	Unique Variance	Per Cent of R ²	Probability Value
1. Costs	0.0344	18.73	0.7286
2. Quality	0.0812	44.14	0.1673
3. Background	0.0691*	37.59	0.0190
4. Exceptionality	0.0236	12.82	0.3871
1 and 2	0.0176	9.56	
1 and 3	-0.0197	-10.73	
1 and 4	-0.0118	- 6.42	
2 and 3	0.0109	5.90	
2 and 4	-0.0138	- 7.51	
3 and 4	-0.0101	- 5.50	
1, 2 and 3	-0.0112	- 6.08	
1, 2 and 4	0.0042	2.26	
1, 3 and 4	0.0113	6.15	
2, 3 and 4	0.0027	1.49	
1, 2, 3 and 4	-0.0044	- 2.41	
Total R ²	0.1839		0.2639
<u>Secondary</u>			
1. Costs	0.0698	21.41	0.4578
2. Quality	0.0192	5.90	0.8579
3. Background	0.0411	12.62	0.0969
4. Exceptionality	0.0508	15.58	0.1864
1 and 2	0.0223	6.86	
1 and 3	0.0107	3.28	
1 and 4	0.0162	4.97	
2 and 3	0.0122	3.75	
2 and 4	-0.0167	- 5.14	
3 and 4	0.0052	1.59	
1, 2 and 3	0.0545	16.72	
1, 2 and 4	0.0061	1.89	
1, 3 and 4	0.0398	12.21	
2, 3 and 4	0.0050	1.53	
1, 2, 3 and 4	-0.0103	- 3.16	
Total R ²	0.3260		0.0666

*Statistically significant at indicated probability level

Special Education Research Study

Table 27

SED, BI and PH Spelling Gains Commonality Analysis Results

Elementary

Source of Variance	Unique Variance	Per Cent of R ²	Probability Value
1. Costs	0.1268*	36.60	0.0302
2. Quality	0.0780	22.52	0.0990
3. Background	0.0431*	12.45	0.0355
4. Exceptionality	0.0536	15.47	0.0668
1 and 2	0.0849	24.50	
1 and 3	-0.0155	- 4.48	
1 and 4	-0.0134	- 3.87	
2 and 3	-0.0053	- 1.54	
2 and 4	0.0105	3.03	
3 and 4	-0.0171	- 4.93	
1, 3 and 4	0.0038	1.09	
2, 3 and 4	-0.0053	- 1.52	
Total R ²	0.3466*		0.0023

Secondary

1. Costs	0.0931	32.43	0.3360
2. Quality	0.0324	11.30	0.7301
3. Background	0.0207	7.21	0.2579
4. Exceptionality	0.0055	1.92	0.8419
1 and 2	0.0742	25.85	
1 and 3	0.0185	6.44	
1 and 4	0.0575	20.04	
2 and 3	0.0065	2.25	
2 and 4	-0.0044	- 1.53	
1, 2 and 3	-0.0352	-12.26	
1, 3 and 4	0.0371	12.92	
2, 3 and 4	0.0053	1.83	
1, 2, 3 and 4	-0.0254	- 8.84	
Total R ²	0.2871		0.1560

*Statistically significant at indicated probability level

Special Education Research Study

Table 28

SED, BI and PH Arithmetic Gains
Commonality Analysis Results

Elementary

Source of Variance	Unique Variance	Per Cent of R^2	Probability Value
1. Costs	0.0998	52.61	0.1579
2. Quality	0.0670	35.29	0.2478
3. Background	0.0369	19.44	0.0815
4. Exceptionality	0.0423	22.27	0.1802
1 and 2	-0.0107	- 5.64	
1 and 3	-0.0117	- 6.16	
1 and 4	-0.0260	-13.69	
2 and 3	0.0127	6.69	
2 and 4	-0.0041	- 2.41	
3 and 4	-0.0147	- 7.75	
1, 2 and 3	-0.0066	- 3.48	
1, 3 and 4	0.0055	2.88	
2, 3 and 4	-0.0089	- 4.71	
1, 2, 3 and 4	0.0083	4.39	
Total R^2	0.1898		0.2348

Secondary

1. Costs	0.0584	11.37	0.3709
2. Quality	0.0633	12.32	0.2176
3. Background	0.0542*	10.56	0.0266
4. Exceptionality	0.0277	5.39	0.2790
1 and 2	0.0990	19.27	
1 and 3	0.0271	5.27	
1 and 4	0.0113	2.20	
2 and 3	0.0288	5.60	
2 and 4	-0.0186	- 3.62	
3 and 4	0.0176	3.42	
1, 2 and 3	0.1184	23.04	
1, 2 and 4	-0.0103	- 2.00	
1, 3 and 4	0.0373	7.26	
Total R^2	0.5138*		0.0004

*Statistically significant at indicated probability level

Special Education Research Study

Table 29

1974-75 Intermediate Unit Special Education Cost Per ADM

Elementary

IU	EMR	IU	TMR	IU	SED	IU	PH	IU	BI
		22	\$5,660	3	\$5,679	17	\$6,775	22	\$5,353
3	\$2,820	16	5,304	25	5,388	3	6,070	25	5,204
26	2,802	26	4,255	26	5,304	23	5,570	26	5,131
27	2,339	27	3,861	2	5,069	16	4,530	17	4,536
16	2,280	3	3,822	6	4,993	2	4,246	10	4,261
4	2,215	18	3,459	1	4,247	15	4,046	7	4,203
14	2,211	15	3,425	22	4,103	10	4,042	2	4,177
19	2,087	23	3,384	10	3,985	12	3,783	19	3,961
1	2,068	10	3,261	27	3,899	26	3,713	16	3,822
24	2,043	11	3,075	21	3,832	13	3,446	15	3,570
10	2,039	25	3,021	14	3,783	19	3,225	5	3,554
5	1,999	14	2,796	13	3,731	22	3,171	21	3,495
20	1,921	2	2,794	28	3,708	8	3,014	3	3,150
21	1,912	12	2,695	15	3,679	6	2,984	28	3,144
2	1,893	17	2,602	23	3,672	7	2,968	23	3,130
17	1,674	21	2,562	7	3,544	18	2,899	4	3,108
9	1,626	8	2,561	12	3,408	21	2,636	18	3,079
6	1,597	28	2,499	4	3,326	5	2,532	20	3,041
25	1,545	1	2,498	8	3,290	1	2,413	12	2,962
18	1,538	24	2,479	24	3,202	9	2,351	14	2,863
7	1,512	4	2,334	19	3,107	24	2,292	24	2,832
8	1,466	13	2,288	20	3,089	14	2,275	1	2,788
12	1,397	9	2,215	5	2,994	25	2,144	8	2,585
29	1,041	7	2,174	17	2,947	4	2,134	13	2,414
		20	2,155	9	2,593	27	2,034	6	2,255
		5	2,144	18	2,534	20	1,928	9	2,168
		19	2,028	29	1,812	29	1,457	11	2,151
		6	1,666	16	1,308			27	2,034
		29	1,429					29	1,403

Special Education Research Study

Table 30

1974-75 Intermediate Unit Special Education Cost Per ADM

Secondary

IU	EMR	IU	TMR	IU	SED	IU	PH	IU	BI
27	\$2,819	26	\$4,349			22	\$6,621		
26	2,761	15	3,425	20	\$8,293	13	6,194		
19	2,253	3	3,299	25	5,981	26	5,791	9	\$5,006
25	2,185	18	3,161	3	5,483	25	5,155	2	4,125
15	2,105	10	2,849	2	5,042	20	4,621	14	4,017
4	2,086	2	2,840	12	4,930	2	4,247	15	3,570
21	2,060	22	2,706	10	4,924	15	4,138	10	3,479
10	2,051	14	2,613	29	4,131	29	4,117	12	3,117
14	1,916	23	2,580	18	4,058	7	4,114	16	2,947
3	1,878	27	2,531	13	3,887	4	3,999	5	3,582
2	1,862	17	2,386	15	3,679	21	3,754	18	2,459
8	1,854	19	2,341	5	3,507	5	3,531	23	2,445
18	1,787	21	2,302	21	3,421	19	3,515	8	2,356
17	1,708	20	2,293	24	3,314	18	3,201	6	2,255
12	1,689	12	2,161	23	3,090	27	3,165	13	2,188
1	1,677	7	2,151	14	2,881	24	3,115	25	1,783
20	1,645	4	2,151	19	2,463	17	3,067	29	1,778
5	1,566	25	2,125	3	2,438	23	2,962	21	1,529
7	1,419	24	2,103	8	2,218	28	2,877	24	1,470
9	1,396	29	2,076	7	2,049	1	2,811	3	1,403
16	1,347	1	2,004			3	2,536		
6	1,288	13	1,858			8	2,077		
28	1,122	6	1,735						
		5	1,718						
		8	1,536						
		9	1,396						
		16	1,243						
		28	1,241						