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ABSTRACT

This study examined the extent to which federal and state funding compensates for the excess cost of educating students under Public Law 94-142, the Education for All Handicapped Children Act. The literature is supports of the contention that the high costs of educating a handicapped child were well known prior to passage of P.L. 94-142, which mandated an "individualized education program" (IEP) for each covered child as well as varous special education services. Requirements of the Law that all needed special education and related services be included in the IEP even when such services cannot be provided by the local education agency are discussed. The Oklahoma weighting formula which partially recompenses local districts for excess costs of educating handicapped children is cited. The opinion of school superintendents across the state that the weights are generally too low is also noted. Actual costs of educating each category of handicapped student in Oklahoma City were compared with costs of educating the average nonhandicapped student and these costs were then compared with total revenues received per student. The results of the study are seen to provide a rationale as well as a quantitative basis for assigning more appropriate weights for each category. 14 references. (DB)

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A Study of the Costs of Special Education and Oklahoma's Weighted Per Pupil Reimbursement: Recommendations for Increased Weights

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This study has been done to complete the course requirements of Survey of Exceptional Child for Dr. Cathy Kass, Associate Professor at Oklahoma City University

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Many writings in the professional educational literature begin with a reference to the sparcity of research in a particular field of endeavor. In specialized arenas this may be an indictment of scholarly investigators; however, in some areas one would expect scientific analysis simply because policymakers would demand such for building a solid foundation from which to launch or evaluate program initiatives. Unfortunately, this condition is too often absent.

As this writer, the superintendent of a large urban school system, began his search for information about the cost of special education programs, he discovered only limited material of any use. In particular, he sought to determine the extent to which state and/or Federal funding compensated for the actual cost of educating students under P.L. 94-142, the Education for All Handicapped Children Act. A list of items reviewed is listed in the Appendix, along with articles, books and studies he is still attempting to secure.

It would appear that neither scholars nor policymakers have established this topic as a high priority which would provide a depth and breath of research findings. This is somewhat curious, since the cost of educating handicapped students is widely recognized as being much higher than regular classroom pupils. There is

not a total absence of information. Some overall interest has been translated into study. Nevertheless, little has been published within the scope of this writer's interest herein.

The passage of P. L. 94-142 mandated a myriad of changes in the way special education programs were operated throughout this country. With respect to handicapped students, the law made famous such phrases as "free appropriate education," "least restrictive environment," "mainstreaming," "due process," "child find" and "IEP." All of the educational services and "related services" necessary for the school environment were to be provided for special students within the public schools. These additional requirements did not arrive without concomitant higher expenditures.

The cost of implementing P.L. 94-142 has to be placed within the context of the year of its passage, 1977. "The early 1970's marked a period in which increased attention was directed to disparities in resources and tax burdens among school districts in the States" (1). These conclusions were typically based upon a comparison of average daily attendance (ADA) and/or average daily membership (ADM) of various school districts with their state or local per pupil revenues. Both the courts and legislatures became active with attempts to equalize resources or revenues on a per pupil basis. Many

alterations were made. "The school finance literature now abounds with studies of the states that legislated changes in their financing arrangements in this period" (2). To some extent, in many states, revenues became less disparate among school districts and tax burdens became a little less inequitable.

During the same period, it was known that "Compared to the average cost of educating a normal child, education of the handicapped is expensive" (3). In 1970, Rossmiller et al (4) studied the cost of educating handicapped pupils in 24 school districts in five states. The "cost ranged from 1.18 times the cost of educating a normal child for educating a speech handicapped child to 3.64 for educating a physically handicapped child" (5). As one might expect, the higher costs come from a smaller pupil/teacher ratio, supplemental personnel, and transportation. The authors at that time also argued that the per pupil cost were "inflated unrealistically" due to being housed in rooms designed for over 30 students (6). This latter argument would generally not be supported today as most authorities would say that handicapped youngsters have further spatial requirements and these regular sized classrooms are, in fact, appropriate.

Contained within the report of the 1969 Conference of Large City Boards of Education of New York was a finding that "...mentally retarded and physically handicapped

children cost three times as much to educate as normal children, while severely mentally and emotionally disturbed children cost five times as much" (7). This report was probably not widely distributed except among interested parties in New York state.

These higher costs meant that financially pressed school administrators and board members tended to cut special education during difficult times or to keep its expenditures at a low ebb to meet other needs. Ackerman and Weintraub in "The Analytic Study of State Legislature for Handicapped Students" confirmed that handicapped programs were "fiscal footballs" in the early 1970's (8).

Because of this disparity of resources and tax burdens, and the higher expense of special education programs: "All states have some legal provisions for reimbursement to local school districts for services to handicapped children beyond the general reimbursement" (9). The state reimbursement methods can be arranged as (a) special, (b) unit, or (c) per pupil (Oklahoma uses a per pupil weighted formula).

In 1971, according to the Council for Exceptional Children: "While no supporting data are available, it is apparent that handicapped children frequently bear the burden of local fiscal austerity, through the cutting back of special services or eliminating programs completely" (10).

The Council for Exceptional Children recognized that " It is apparent that full education opportunities for handicapped children will not be achieved if the full financial responsibility must be borne by the local district" (11).

The Council went on. "Therefore it is recommended that: The costs of educating a handicapped child beyond that of educating a non-handicapped child should be assumed by state government. However, the child's district of residence should be required to assume an expenditure for the child equal to that expended for a non-handicapped child, regardless of where the child receives an education" (12).

The tremendous variance in the local ability to fund special education was known prior to the 1977 passage of P.L. 94-142. Yet, in this law, the availability of resources was not a consideration when it came to the needs of the handicapped student. Special education children are legally entitled to needed services even if those resources are not currently available. The inherent assumption and the mandate of 94-142 is that the handicapped child's needs can be met even if outside contacts are the only option.

The interpretation of "Individualized Education Program" includes no provision for a discussion of whether



the needed services are currently available or the cost associated with the services. That definition follows:

"The term 'individualized education program' means a written statement for each handicapped child developed in any meeting by a representative of the local agency or an intermediate educational unit who shall be qualified to provide, or supervise the provision of, specially designed instruction to meet the unique needs of handicapped children, the teacher, the parents or guardian of such child, and, whenever appropriate, such child, which statement shall include (A) a statement of the present levels of educational performance of such child, (B) a statement of annual goals, including short-term instructional objectives, (C) a statement of the specific educational services to be provided to such child, and the extent to which such child would be able to participate in regular educational programs, (D) the projected date for initiation and anticipated duration of such services, and (E) appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether instructional objectives are being achieved" (13).

Furthermore, the Federal Regulations (14) have made it absolutely clear that the IEP is to include all needed services even if not currently available:



"Each public agency must provide a free public education to all handicapped children under its jurisdiction. Therefore, the IEP for a handicapped child must include all of the specific special education and related services needed by the child -- as determined by the child's current evaluation. This means that the services must be listed in the IEP even if they are not directly available from the local agency, and must be provided by the agency through contract or other arrangements.

Each handicapped child's IEP must include all services necessary to meet the child's identified special education and related services needs: and all service in the IEP must be provided in order for the agency to be in compliance with the Act" (15).

The number of special education students increased dramatically after 1977 with the implementation of P. L. 94-142. One might hypothesize that the more handicapped students identified and serviced, the lower their per pupil cost would become. In the post 94-142 studies, this writer was able to find, that is not the case.

Raphael, Sinzer and Walker in a 1982-83 sub-study of The Collaborative Study of Children With Special Needs researched cost data in the urban schools systems of Milwaukee, Wisconsin; Rochester, New York, and Charlotte-Mecklenburg, North Carolina. Among their

findings: "The mean expenditure on education for special needs students was nearly twice that of regular education students in Milwaukee (\$7482 vs \$3915) and Rochester (\$7733 vs \$4181) and about one and a half as great in Charlotte (\$5864 vs \$3803)" (16).

While the Raphael, Sinzer and Walker study examined all special education categories collectively and by categories, their overall 2:1 ratio of special vs regular education expenditures is consistent with a 1981 Rand Corporation study entitled "The Cost of Special Education" (17) and a 1982 report, "Finetuning Special Education Finance: A Guide for Policymakers" (18). The most interesting aspect of such comparisons is that these ratios of the 1980's - post P. L. 94-142 - are fairly consistent with those found by Rossmiller (cited above) and published in 1970, pre P.L. 94-142.

Due to the heavy excess expense of special education programs which put tremendous pressures upon local school district budgets, all states provide some form of state reimbursement for these programs. Oklahoma provides funding for special education primarily through a per pupil weighting formula. The relevant section of Oklahoma State Law is Title 70, Section 18-109.3 a part of which follows:

"The weighted pupil category calculation shall be determined assigning weights to pupil categories as follows:

<u>Category</u>	<u>Weight</u>
a. Vision Impaired	3.80
b. Learning Disabilities	.40
c. Hearing Impaired	2.90
d. Deaf and Dumb	3.80
e. Educable Mentally Handicapped	1.30
f. Emotionally Disturbed	2.50
g. Gifted	.34
h. Multiple Handicapped	2.40
i. Physically Handicapped	1.20
j. Speech Impaired	.05
k. Trainable Mentally Handicapped	1.30
l. Bilingual	.25
m. Special Education Summer Program	1.20

Multiply the number of pupils approved and enrolled in the preceding school year in each category by the weight assigned to such category and add the totals together to determine the weighted pupil category calculation for a school district" (19).

Among school superintendents throughout this state, there has been concern about the value of the above weights with the general feeling being that the weights are too low. That same concern has been expressed by staff of the Oklahoma City Public Schools. This dissatisfaction, however, has been based upon general perceptions, not a complete analysis of actual excess costs vs state and Federal supplements. This writer set out to explore this issue with the intent to start the

process of building a rationale for increased weights, if the facts supported the projections.

The problem became of first identifying the actual cost of special education in Oklahoma City on a per pupil basis. That was accomplished for all special education categories with the initial worksheets contained in the appendix. The new 1986-87 State Special Education Report contained the necessary data for the most part. A sample of this report is in the appendix. Four sample IEP's were randomly selected to identify the actual excess costs of providing services for these youngsters. This was done as a means of validating that the number for total excess expenditures were "ballpark accurate."

A series of charts were generated to calculate and display the various costs of each special education category on a per pupil basis in Oklahoma City. These charts are included in the appendix.

Excluding Federal funds, the average cost for each non-handicapped Oklahoma City student in 1986-87 was determined and used in the formulation of the various excess cost weights included on the charts.

These activities revealed the various costs per student and excess weights for Oklahoma City Public School's special education programs:

	Cost per Student	Weighted Factor
Vision Impaired	\$7,334	2.93
Hearing Impaired	7,397	2.96
Educable Mentally Handicapped	5,853	2.34
Physically Handicapped	7,985	3.19
Speech Impaired	2,982	1.19
Emotionally Disturbed	6,095	2.44
Trainable Handicapped	7,068	2.82
Multi-handicapped	7,821	3.12
Learning Disabled	6,534	2.61
Deaf/Blind	1,869	.75

One might be tempted to simply compare the total Oklahoma City per student costs and/or weights with the state reimbursements. That approach is inadequate because it fails to take into consideration other special education funding such as Federal revenues and reimbursements from the other school districts in the form of tuition.

These factors were taken into consideration in Oklahoma City when calculating the special education revenue per student charts as shown in the appendix.

The total revenue per student figures revealed in the charts below indicate that in the Oklahoma City Public Schools the cost per student in every special education category is significantly more than the total revenue received. The range of this difference is from \$6,629 for physically handicapped students to \$1,936 for speech impaired pupils.

## REVENUE PER STUDENT

	State	Fed.	Other	Total	Cost Per Student	Diff.
Vision Imp.	1,790	267	828	2,885	7,334	(4,449)
Learn. Disab.	874	267	5	1,146	6,534	(5,388)
Hearing Imp.	1,548	267	464	2,279	7,397	(5,118)
Emot. Dist.	1,140	267	0	1,707	6,095	(4,388)
Mult. Hand.	1,413	267	388	2,068	7,821	(5,753)
Phy. Hand.	1,089	267	0	1,356	7,985	(6,629)
Speech Imp.	779	267	0	1,046	2,982	(1,936)
T.M.H.	1,116	267	56	1,439	7,068	(5,629)

Of course, the "excess cost" must be considered not just the total cost since the state provides revenue for non-handicapped students. Factoring that element into the equation provides the "needed weighting" column for what it would take in terms of weighting to have Oklahoma City "break even" with respect to special education. Federal funds were evenly distributed throughout all special education categories in the Federal weighting column. As the chart below indicates, the current vision impaired weighting more than covers the excess cost. The total weighting for hearing impaired and emotionally disturbed are close to the actual excess cost. The weighting for both vision impaired and hearing impaired are influenced by "other weighting" which means tuition received from other school districts. Most categories show a highly significant difference between the total revenue weighting and the needed weighting for covering the excess cost beyond the costs associated with the non-handicapped costs. The learning disabled weight would need to be

increased by 2.11; the physically handicapped by 1.89; the T.M.H by 1.40 and the speech impaired by 1.04 simply to meet the excess cost of those services.

	State Wgt.	Fed. Wgt.	Other Wgt.	Total Wgt.	Needed Wgt.	Diff. Wgt.
Visual Imp.	3.80	0.10	0.33	4.23	2.93	1.30
Learn. Dis.	0.40	0.10	0.00	0.50	2.61	-2.11
Hearing Imp.	2.90	0.10	0.18	3.18	2.96	0.22
Emot. Dist.	2.50	0.10	0.00	2.60	2.44	0.16
Mult. Hand.	2.40	0.10	0.16	2.66	3.12	-0.46
Phy. Hand.	1.20	0.10	0.00	1.30	3.19	-1.89
Speech Imp.	0.05	0.10	0.00	0.15	1.19	-1.04
T.M.H.	1.30	0.10	0.02	1.42	2.82	-1.40

What all of this means is that a solid rationale, based on facts, has now been identified for not only why, but how much the weights for special education students should be increased. The chart below gives the current weights and the weights needed due to excess costs. This rationale has been developed after a review of the professional literature and a comprehensive analysis of the "excess cost" for special education for Oklahoma City Public Schools. The next step, which goes beyond the scope of this paper, is for the writer to further validate this study with other Oklahoma school districts and then build a base of political support for changing the law to more accurately reflect the actual excess costs. The latter proposition may be somewhat difficult, but the former notion has already begun as the author is the chair of an Oklahoma Association for Supervision and Curriculum Development committee which will work on that task.



Category	Present State Weighting	Weights* Needed to Meet Excess Cost
Vision Impaired	3.80	
Learning Disabled	0.40	2.51
Hearing Impaired	2.90	
Emotional Disturbed	2.50	
Multi-handicapped	2.40	2.86
Phy. Handicapped	1.20	3.09
Speech Impaired	0.05	1.45
T.M.H.	1.30	2.70

\*Since tuition from other school districts influences the categories of vision and hearing impaired and the emotionally disturbed weighting is close to the actual excess cost, weights for these categories are not recommended for change.

As stated earlier in this paper and by the Council for Exceptional Children in 1971, "The costs of educating a handicapped child beyond that of educating a non-handicapped child should be assumed by state government" (20). The National Coalition of Advocates for Students in a 1985 study entitled Barriers to Excellence: Our Children At Risk recommended that the Federal government provide additional funding for special education: That report included recommendations that, "at the Federal level: Increase funding for P.L. 94-142 (the Education for Handicapped Children Act) in order to realize the original promise of 40% support from federal sources" (21).

The excess cost of properly educating handicapped children should be borne by either the state or Federal government or a combination, rather than by local school

districts where resources, tax burdens, and the number of special education students are disparate.

Although P.L. 94-142 was not in effect until 1977, the trend of professional thinking toward handicapped students was rooted years before. James Coleman (1968) in discussing societal goals for the handicapped stated, "We'll give you crutches, we'll give you remedial reading, we'll help you run the race" (22).

It is time for the state and Federal government to provide sufficient funding for this dream to become a reality in all the school districts in this great land.

References

- 1) Lawrence Brown, III; Alan Ginsburg; Neil Tillalca, Richard Rosthal and Ester Tron. "School Finance Reform in the Seventies: Achievements and Failures," Selected Papers in School Finance 1978, U. S. Department of HEW, p.57
- 2) IBID
- 3) Frederick Weintraub, Alan Abeson, David Braddock. State Law & Education of Handicapped Children: Issues and Recommendations (Arlington, VA: The Council for Exceptional Children, 1971), p. 56
- 4) Richard Rossmiller, James Hale, Lloyd Frohreich. Educational Program for Exceptional Children: Resource Configurations and Cost (Madison, Wisconsin: The University of Wisconsin, 1970)
- 5) IBID
- 6) IBID
- 7) Conference of Large City Boards of Education of New York State. An Analysis of the Educational and Financial Needs of Large Cities in New York State With Recommendations for Revisions of the State Aid Formulas (Buffalo, New York: Board of Education, 1969)
- 8) Paul Ackerman and Fred Weintraub. Final Report, Analytic Study of State Legislation for Handicapped Children. U. S. Office of Education, Bureau of Education for the Handicapped, Project NO. 18-2013. Washington: The Council for Exception Children, 1971.
- 9) State Law & Education of Handicapped Children, cited above, p. 64
10. IBID
11. IBID
12. IBID
13. CFR 46, March 30, 1981

14. IBID
15. IBID
16. Ellen Raphael, Judith Sinzer and Deborah Walker. "Per Pupil Expenditure on Special Education in Three Metropolitan School Districts," Journal of Education Finance, Summer, 1985, p. 79
- 17) James Kakalik et al. The Cost of Special Education (Santa Monica, California: Rand Corporation, 1981)
- 18) Mary Moore, Lisa Walker and Richard Holland. Finetuning Special Education Finance: A Guide for Policymakers (Princeton, N. J.: Educational Testing Services, 1982)
- 19) Title 70, Oklahoma Statutes, Section 18-109.3
- 20) State Law & Education of Handicapped Children, cited above
- 21) Harold Howe II and Marian Edelman. Barriers to Excellence: Our Children at Risk (Boston, Mass.: The National Coalition of Advocates for Students, 1985), p. 113
- 22). James Coleman, "The Concept of Equality of Educational Opportunity," Harvard Educational Review, Vol. 38, 1968, p. 17

**Appendix A**

**Initial Sources for Identifying Special Education  
Costs for Oklahoma City Public Schools**

STATE AID ALLOCATION 1987-88  
TENTATIVE STATE ALLOCATION

ATTACHMENT A

-19

JNTY: 55 OKLAHOMA

DISTRICT: 1089 OKLA CITY

FOUNDATION AID:

WEIGHTED ADA ( 47,621.10) X  
FOUNDATION AID FACTOR ( \$945.00) = \$45,049,189.50

LESS CHARGEABLES

ADJUSTED VALUATION ( \$952,484,813) X ( 0.015)	\$14,287,272.20
COUNTY 4 MILL LEVY ( \$3,049,876) X ( 0.750)	\$2,287,407.00
SCHOOL LAND EARNINGS	\$2,380,544.00
GROSS PRODUCTION	\$320,233.00
AUTO LICENSE	\$11,866,011.00
AREA TAX	\$13,121.00
	-----
TOTAL CHARGEABLES	\$31,154,588.20
	-----

NET FOUNDATION AID (ZERO IF LESS THAN ZERO)

\$13,894,601.

TRANSPORTATION:

REGULAR A.D.H. ( 12,375.00) X PER CAPITAL \$33.00 X  
TRANSPORTATION FACTOR (1.39) = \$567,641.

SALARY INCENTIVE AID:

1: INC. AID GUARANTEE FACTOR (38.99) X  
WEIGHTED ADM ( 51,798.02) = \$2,019,604.7998

2: ADJUSTED DISTRICT VALUATION  
( \$952,484,813) / 1000 = \$952,484.8130

3: #1 - #2 = \$1,067,119.9868

4: #3 X MILLS LEVIED ABOVE 15 (20.0) = \$21,342,400.

BASIC FORMULA \$35,804,642

H.B. 1110 SUPPLEMENT \$1,468,972

BASIC STATE AID (BASIC FORMULA + H.B. 1110 SUPPLEMENT ) X  
PRORATE FACTOR (1.0000) \$37,273,614

ADJUSTMENTS DUE TO ADDITIONS \$0.  
AND REDUCTIONS \$0.

TOTAL NET STATE AID \$37,273,614





## SPECIAL SERVICES DEPARTMENT - November 16, 1987

PSYCHOMETRISTS/PSYCHOLOGISTS + SECRETARIES

<u>General Fund</u> n = 19	N tests = 3,314	n = 1 <u>Fund 16</u>
\$516,251		Secretary \$10,087
<u>91,067 (17.64%)</u>		<u>1,779 (17.64%)</u>
\$607,318	\$619,184	\$11,866
\$24/hr.	<u>\$187/child/yr.</u>	

SPEECH-LANGUAGE PATHOLOGISTS

<u>General Fund</u> n = 26.5	n students = 2,523	n = 20.5 <u>Fund 16</u>
\$562,929		\$412,105
<u>99,301 (17.64%)</u>		<u>72,695 (17.64%)</u>
\$662,230	\$1,147,030	\$484,800
\$19/hr.	<u>\$455/child/yr.</u>	

OCCUPATIONAL THERAPISTS

<u>General Fund</u> n = 5	n students = 350	n = 9 <u>Fund 16</u>
\$90,319		\$129,162
<u>15,932 (17.64%)</u>		<u>22,784 (17.64%)</u>
\$106,251	\$258,197	\$151,946
\$15/hr.	<u>\$738/child/yr.</u>	

PHYSICAL THERAPISTS

<u>General Fund</u> n = 4	n students = 165	n = 2 <u>Fund 16</u>
\$102,138		\$39,297
<u>18,017 (17.64%)</u>		(contracted) <u>37,808</u>
\$120,155	\$210,861	<u>13,601 (17.64%)</u>
		\$90,706
\$22/hr.	<u>\$1,326/child/yr.</u>	

SPECIAL NURSES

N = 3	n students = 350	<u>Fund 16</u>
		\$52,757
		<u>9,306 (17.64%)</u>
	\$62,063	\$62,063
\$16/hr.	<u>\$177/child/yr.</u>	

SPECIAL SERVICES DEPARTMENT - November 16, 1987

PSYCHOMETRISTS/PSYCHOLOGISTS + SECRETARIES

<u>General Fund</u> n = 19	N tests = 3,314	n = 1 <u>Fund 16</u>
\$516,251		Secretary \$10,087
91,067 (17.64%)		1,779 (17.64%)
<u>\$607,318</u>	<u>\$619,184</u>	<u>\$11,866</u>
\$24/hr.	<u>\$187/child/yr</u>	

SPEECH-LANGUAGE PATHOLOGISTS

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<u>\$662,230</u>	<u>\$1,147,030</u>	<u>\$484,800</u>
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		13,601 (17.64%)
<u>\$120,155</u>	<u>\$210,861</u>	<u>\$90,706</u>
\$22/hr.	<u>\$1,326/child/yr.</u>	

SPECIAL NURSES

N = 3	n students = 350	<u>Fund 16</u>
		\$52,757
		9,306 (17.64%)
	<u>\$62,063</u>	<u>\$62,063</u>
\$16/hr.	<u>\$177/child/yr.</u>	

SPECIAL EDUCATION SUPERVISION + CLERICAL

<u>General Fund</u>	N students = 5,411	<u>Fund 16</u>
\$187,578		\$163,541
33,089 (17.64%)		28,849 (17.64%)
<u>\$220,667</u>	<u>\$413,057</u>	<u>\$192,390</u>
<u>\$76/child/yr.</u>		

EXTENDED SCHOOL YEAR PH/MH

<u>General Fund</u>	n students = 30	<u>Fund 16</u>
\$2,942		\$2,942
519 (17.64%)		519 (17.64%)
<u>\$3,461</u>	<u>\$6,922</u>	<u>\$3,461</u>
<u>\$231/child/ESY</u>		

EQUIPMENT/SUPPLIES PH/MH

n students = 169
\$19,067
<u>\$113/child/yr.</u>

EQUIPMENT/SUPPLIES TMR

n students = 190
\$8,975
<u>\$47/child/yr.</u>

TEACHER ASSISTANTS TMR

<u>General Fund</u> n = 3		n = 8.5 <u>Fund 16</u>
\$27,848		\$73,038
4,912 (17.64%)		12,884 (17.64%)
<u>\$32,760</u>	<u>\$118,682</u>	<u>\$85,922</u>
\$8/hr.	<u>\$625/child/yr.</u>	

TEACHER ASSISTANTS PH/MH

<u>General Fund</u> n = 10		n = 17 <u>Fund 16</u>
\$82,483		\$134,238
14,550 (17.64%)		23,680 (17.64%)
<u>\$97,033</u>	<u>\$254,951</u>	<u>\$157,918</u>

\$7/hr. \$1,024/child

TEACHERS TMR

General Fund n = 25

*7 stud/p stud*

n students = 190

\$561,425

99,035 (17.64%)

\$660,460

\$3,476/child/yr.

TEACHERS PH/MH

General Fund n = 22

n students = 169

\$462,396

81,567 (17.64%)

\$543,963

\$3,217/child/yr.

INSERVICE TMR

n students = 190

\$581

\$3/child/yr.

INSERVICE PH/MH

n students = 169

\$1,290

\$8/child/yr.

TRANSPORTATION

\$1,024/child/yr.

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**EXAMPLE OF EXCESS COSTS FOR MULTIHANDICAPPED CHILD RECEIVING SPECIAL EDUCATION INSTRUCTION + SPEECH-LANGUAGE + OCCUPATIONAL THERAPY + PHYSICAL THERAPY + SCHOOL HEALTH SERVICES + SCHOOL PSYCHOLOGY SERVICES:**

Special Education Supervision	\$ 76
Equipment/Supplies	113
Teacher Assistant	1,024
Psychometrist/Psychologist	(187)
Speech-Language Pathology	(455)
Occupational Therapy	(738)
Physical Therapy	1,326
Health Service	177
MH Teacher	3,217
Inservice	8
Transportation	1,024
	<u>\$ 8,345/yr.</u>
Weight = 3.33	

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**EXAMPLE OF EXCESS COSTS FOR TRAINABLE MENTALLY RETARDED CHILD RECEIVING SPECIAL EDUCATION INSTRUCTION + SPEECH-LANGUAGE + OCCUPATIONAL THERAPY + PHYSICAL THERAPY + SCHOOL HEALTH SERVICES + SCHOOL PSYCHOLOGY SERVICES:**

Special Education Supervision	\$ 76
Equipment/Supplies	47
Teacher Assistant	625
Psychometrist/Psychologist	187
Speech-Language Pathology	455
Occupational Therapy	738
Physical Therapy	1,326
Health Service	177
TMR Teacher	3,476
Inservice	8
Transportation	1,024
	<u>\$ 8,134/yr.</u>
Weight = 3.25	

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**RANDOMLY SELECTED IEP EXAMPLE OF COSTS FOR MULTIHANDICAPPED CHILD BC 12/9/82:**

Special Education Supervision	\$ 76
Equipment/Supplies	113
Teacher Assistant	1,024
Psychometrist/Psychologist (10/24/88 - \$187)	62
Speech-Language Pathologist	475
Occupational Therapy	735
Physical Therapy	682
Health Service	177
MH Teacher	3,217
Inservice	8
Transportation	<u>1,024</u>
	\$ 7,593/yr.

Weight = 3.03

**RANDOMLY SELECTED IEP EXAMPLE OF COSTS FOR TRAINABLE MENTALLY RETARDED CHILD ES 3/14/80:**

Special Education Supervision	\$ 76
Equipment/Supplies	47
Teacher Assistant	625
Psychometrist/Psychologist (11/5/90 - \$187)	62
Speech-Language Pathologist	703
Health Service	177
TMR Teacher	3,476
Inservice	3
Transportation	<u>1,024</u>
	\$ 6,193/yr.

Weight = 2.47

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**Appendix B**

**Instructional and Related Costs of Special Education  
in Oklahoma City Public Schools**



## SCHEDULE I : TOTAL AVERAGE INSTRUCTIONAL PLUS RELATED SERVICES

	REGULAR CLASS	RESOURCE ROOM	SEPARATE CLASS	SEPARATE SCHOOL	OTHER EDU. ARRANGMT	TOTAL BY CATAGORY	AVERAGE INSTRUCT.	RELATED SERVICES	PER STUDENT	WEIGHTED FACTOR
VISION IMPAIRED	4 16,803	5 21,004	17 74,324	0 0	2 1,951	28 114,082	4,074	3,021	7,095	2.83
HEARING IMPAIRED	0 0	7 29,405	30 131,160	0 0	6 9,079	43 169,644	3,945	3,057	7,002	2.80
EDU. MENT. HANDI.	103 432,674	643 2,701,062	436 190,619	5 37,390	0 0	1,187 3,361,745	2,832	3,021	5,853	2.34
PHYSICALLY HANDI.	3 12,601	14 58,810	29 126,788	12 89,688	2 1,951	60 289,839	4,831	3,021	7,852	3.14
SPEECH IMPAIRED	1,284 3,787,736	0 0	0 0	0 0	7 3,129	1,291 3,790,865	2,936	32	2,968	1.19
EMOTIONALLY DISTURBED	4 16,803	12 50,409	106 463,432	6 44,868	6 4,121	134 579,632	4,326	1,599	5,925	2.37
TRAINABLE HANDI.	1 4,201	1 4,201	159 695,148	23 171,994	3 16,190	187 891,733	4,769	2,310	7,079	2.83
MULTI-HANDI.	3 12,602	3 12,602	73 319,156	13 97,214	85 92,473	177 534,047	3,017	3,021	6,038	2.41
LEARNING DISABLE	835 3,507,601	1,121 4,709,007	301 1,215,372	0 0	1 398	2,258 9,532,978	4,222	2,310	6,532	2.61
DEAF-BLIND	0 0	0 0	0 0	0 0	0 0	0 0	0	1,869	1,869	0.75
SUMMER S. P.	0 0	0 0	0 0	0 0	6 2,025	6 2,025	338	561	899	0.36

SCHEDULE II : TOTAL AVERAGE INSTRUCTIONAL EXCLUDING OTHER EDUCATIONAL ARRANGEMENT PLUS RELATED SERVICES

	REGULAR CLASS	RESOURCE ROOM	SEPARATE CLASS	SEPARATE SCHOOL	TOTAL BY CATAGORY	AVERAGE INSTRU	RELATED SERVICES	PER STUDENT	WEIGHTEL FACTOR
VISION IMPAIRED	4 16,803	5 21,004	17 74,324	0	26 112,130	4,313	3,021	7,334	2.93
HEARING IMPAIRED	0 0	7 29,485	30 131,160	0	37 160,565	4,340	3,057	7,397	2.96
EDU. MENT. HANDI.	103 432,674	643 2,701,062	436 190,619	5 37,390	1,187 3,361,745	2,832	3,021	5,853	2.34
PHYSICALLY HANDI.	3 12,601	14 58,810	29 126,788	12 89,688	58 287,887	4,964	3,021	7,985	3.19
SPEECH IMPAIRED	1,384 3,787,736	0 0	0 0	0	1,284 3,787,736	2,950	32	2,982	1.19
EMOTIONALLY DISTURBED	4 16,803	12 50,409	106 463,432	6 44,868	123 575,512	4,496	1,599	6,095	2.44
TRAINABLE HANDI.	1 4,201	1 4,201	159 695,148	23 171,994	184 875,543	4,758	2,310	7,068	2.82
MULTI-HANDI.	3 12,602	3 12,602	73 319,156	13 97,214	92 441,574	4,800	3,001	7,821	3.12
LEARNING DISABLE	835 3,507,601	1,121 4,709,007	301 1,315,979	0	2,257 9,532,580	4,324	2,310	6,534	2.61
DEAF-BLIND	0 0	0 0	0 0	0	0	0	1,869	1,869	0.75
SUMMER S.P.	0 0	0 0	0 0	0	0	0	561	561	0.22

SCHEDULE III : INDIVIDUAL ARRANGEMENT PLUS RELATED SERVICE

	REGULAR RESOURCE	RELATED SERV.	PER STUDENT	WEIGHTED FACTOR	SEPARATE CLASS	RELATED SERV.	PER STUDENT	WEIGHTED FACTOR	SEPARATE SCHOOL	RELATED SERV.	PER STUDENT	WEIGHTED FACTOR
VISION IMPAIRED	4,201	3,021	7,222	2.89	4,372	3,021	7,393	2.95	0	3,021	3,021	1.21
HEARING IMPAIRED	2,952	3,057	6,007	2.40	4,372	3,057	7,429	2.97	0	3,057	3,057	1.22
EDU. MENT. HANDI.	4,201	3,021	7,222	2.89	4,372	3,021	7,393	2.95	7,478	3,021	10,499	4.19
PHYSICALLY HANDI.	4,201	3,021	7,222	2.89	4,372	3,021	7,393	2.95	7,478	3,021	10,499	4.19
SPEECH IMPAIRED	4,201	32	4,233	1.69	0	32	32	0.01	0	32	32	0.01
EMOTIONALLY DISTURBED	4,201	1,599	5,800	2.32	4,372	1,599	5,971	2.39	7,478	1,599	9,077	3.63
TRAINABLE HANDI.	4,201	2,310	6,511	2.60	4,372	2,310	6,682	2.67	7,478	2,310	9,788	3.91
MULTI- HANDI.	4,201	3,021	7,222	2.89	4,372	3,021	7,393	2.95	7,478	3,021	10,499	4.19
LEARNING DISABLED	4,201	2,310	6,511	2.60	4,372	2,310	6,682	2.67	0	2,310	2,310	0.92
DEAF- BLIND	0	1,869	1,869	0.75	0	1,869	1,869	0.75	0	1,869	1,869	0.75
SUMMER S. P.	0	561	561	0.22	0	561	561	0.22	0	561	561	0.22

## RELATED SERVICES

	TESTING	SPEECH THERAPY	PHYSICAL THERAPY	DIAGNOSTIC SERVICE	OCCUPATIONAL THERAPY	SCHOOL HEALTH	OTHER RELATED	TOTAL COST PER STUDENT
VISION IMPAIRED	105	447	711	0	711	23	1,024	3,021
HEARING IMPAIRED	105	447	711	37	711	23	1,024	3,057
EDU. MENT. HANDI.	105	447	711	0	711	23	1,024	3,021
PHYSICALLY HANDI.	105	447	711	0	711	23	1,024	3,021
SPEECH IMPAIRED	32	0	0	0	0	0	0	32
EMOTIONALLY DISTURBED	105	447	0	0	0	23	1,024	1,599
TRAINABLE HANDI.	105	447	0	0	711	23	1,024	2,310
MULTI- HANDI.	105	447	711	0	711	23	1,024	3,021
LEARNING DISABLE	105	447	711	0	0	23	1,024	2,310
DEAF- BLIND	0	447	711	0	711	0	0	1,869
SUMMER S. P.	0	175	101	0	195			561

**Appendix C**

**Revenue Received for Special Education Students  
Within the Oklahoma City Public Schools**

	REVENUE PER STUDENT			TOTAL	COST PER STUDENT	DIFFERENCE
	STATE	FEDERAL	OTHER			
VISION IMPAIRED	1,790	267	828	2,885	7,334	(4,449)
LEARNING DISAB.	874	267	5	1,146	6,534	(5,388)
HEARING IMP.	1,548	267	464	2,279	7,397	(5,118)
EMOT. DIST.	1,440	267	0	1,707	6,095	(4,388)
MULT. HAND.	1,413	267	388	2,068	7,821	(5,753)
PHY. HAND.	1,089	267	0	1,356	7,985	(6,629)
SPEECH IMP.	779	267	0	1,046	2,982	(1,936)
T. M. H.	1,116	267	56	1,439	7,868	(5,629)

	STATE WEIGHTING	FEDERAL WEIGHTING	OTHER WEIGHTING	TOTAL WEIGHTING	NEEDED WEIGHTING	DIFFERENCE
VISION IMPAIRED	3.88	0.10	0.33	4.23	2.93	1.30
LEARNING DISAB.	0.48	0.10	0.00	0.58	2.61	-2.11
HEARING IMP.	2.90	0.10	0.18	3.18	2.96	0.22
EMOT. DIST.	2.50	0.10	0.00	2.60	2.44	0.16
MULT. HAND.	2.48	0.10	0.16	2.66	3.12	-0.46
PHY. HAND.	1.20	0.10	0.00	1.30	3.19	-1.89
SPEECH IMP.	0.05	0.10	0.00	0.15	1.19	-1.04
T. M. H.	1.38	0.10	0.02	1.42	2.82	-1.40

REVENUE PER STUDENT FROM STATE SOURCES

	F.A. PER WADA GRADE LEV	F.A. WEIGHTED FACTOR	I.A. PER WADM GRADE LEV	PSYCHOM. PER STUDENT	STATE PER STUDENT	NOTES:
VISION IMPAIRED	270	1,024	387	109	1,790	1986-87 STATE AID FORMULA:  FOUNDATION AID 47,778.75 (WADA) X \$901 = 43,848,654  LESS : CHARGEABLES 30,171,377  NET FOUNDATION AID 12,877,277  PER WADA = \$12,877,276.96 / 47,778.75 = 270  INCENTIVE AID TOTAL 19,902,372  PER WADM = 19,902,372 / 51,473.76 387  PSYCHOMETRIC SERVICE TOTAL (1986-87) 359,849  PER STUDENT \$359,849 / 3,314 109
LEARNING DISAB.	270	108	387	109	874	
HEARING IMP.	270	782	387	109	1,548	
EMOT. DIST.	270	674	387	109	1,440	
MULT. HAND.	270	647	387	109	1,413	
PHY. HAND.	270	323	387	109	1,089	
SPEECH IMP.	270	13	387	109	779	
T. N. H.	270	350	387	109	1,116	
SUMMER S. E.	0	323	0	109	432	

SCHEDULE OF REIMBURSEMENT FROM OTHER SCHOOL DISTRICTS

	TOTAL RECEIVED	NUM. OF STUDENS	AVERAGE PER STUD.	TOTAL DIST. STUDENTS	AVERAGE DIST. STUD.
VISION IMPAIRED	23,187	4	5,797	28	828
LEARNING DISAB.	10,342	3	3,447	2,258	5
HEARING IMPAIRED	19,345	4	4,986	43	464
MULTI. HAND.	68,634	10	6,863	177	388
T. M. R.	10,469	2	5,235	187	56

Appendix D

Other materials reviewed to meet the requirements of  
"SURVEY OF EXCEPTIONAL CHILD," Oklahoma City University



*O. H. W.* Materials reviewed to meet the requirements of "SURVEY OF EXCEPTIONAL CHILD," Oklahoma City University

U. S. Department of Health, Education and Welfare. Selected Papers in School Finance. Office of Education, 1978.

Maryland State Coordinating Committee on Services to Handicapped Children. Program and Financial Analysis for Improved Services To Handicapped Children, Final Report. September, 1981.

Southern California Research Council. Financing Quality Education in Southern California, 1985.

Human Services Research Institute. Summary of Data on Handicapped Children and Youth. National Institute of Handicapped Research, U. S. Department of Education, December, 1985.

Mathematica Policy Research, Inc. Digest on Data on Persons With Disabilities. Congressional Research Services. June, 1984.

Pullin, Diana. Special Education: A Manual for Advocates, Volume I. Center for Law and Education, Inc., June, 1982.

Pullin, Diana. Special Education: A Manual for Advocates, Volume II. Center for Law and Education, Inc., 1982.

Frankel, Martin M. and Harrison, Forrest W. Projections Educational Statistics to 1985-86. U. S. Department of Health, Education, and Welfare. Education Division.

Roahrig, Paul. C.A.S.E. Research Committee Information Packet on Cost Benefits Analysis. (Council of Administrators of Special Education Incorporated, Indiana University, 1980).

Smith-Davis, Judy, Phillip Burke and Margaret Noel. Personnel to Educate the Handicapped in America: Supply and Demand From a Programmatic Viewpoint (College Park, Maryland: Institute for the Study of Exceptional Children and Youth, 1984).

McLure, William, Robert Bernham, and Robert Henderson. Special Education: Needs Costs, Methods of Financing (Urbana-Champaign, Illinois: Bureau of Educational Research, University of Illinois, May, 1975).

Schipper, William. Full Services Planning in Special Education: Exercises in Fiscal and Program Development (Washington, D.C.: National Association of State Directors of Special Education, January, 1980).

Wilken, William. State Aid for Special Education: Who Benefits? (Washington, D. C.: National Institute of Education, December, 1977).

Cox, James and Talbot Black. Analyzing Costs of Service (Chapel Hill, North Carolina: Frank Porter Graham Child Development Center for the University of North Carolina, August, 1982).

Pontzer, Kathryn. Survey of Expenditures for Special Education and Related Services (Washington, D.C.: DRC, February, 1987).

Weintraub, Frederick, Alan Abeson and David Braddock. State Law and Education of Handicapped Children: Issues and Recommendations (Arlington, VA: The Council for Exceptional Children, 1972).

Roelofs, Marv. An Introductory Booklet on Supplemental Funding Resources Services (Flossmoor, Illinois: Trans Allied Medical-Educational Services, Inc.).

Appendix E

Requested Materials Yet to be Received:

1. Osborne, H. A. How the Courts Have Interpreted the Related Services Mandate. Exceptional Child, November, 1984.
2. Corbett, H. D. and others. The Meaning of Funding Cuts. Educational Evaluation Policy Analysis, Winter, 1984.
3. Geske, T. G. and Johnston, M. J. A New Approach to Special Education Finance. The Resource Cost Model. Plan Changing, Summer, 1985.
4. Woods, et al State Special Education Funding Formulas: Their Relationship to Regular Education Funding. Plan Changing, Fall, 1984.