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ABSTRACT

Analysis of data from the Kansas State Department of Education indicated an attrition rate of about 15% for special educators in the late 1970's and early 1980's which has decreased since 1986 to about 10%. The detailed data are presented in the form of 13 tables which cover: personnel vacancies at the beginning of school years (1980-1988); special education personnel attrition totals for 1977-1988 by area of specialization; annual special education attrition rates 1977 to 1988; special education personnel attrition 1988 by area of specialization, special education personnel attrition 1986 to 1988 by area, special education personnel attrition for those with teaching as a primary responsibility by area of specialization for 1988 and 1986-1988; attrition of support personnel for 1988 and 1986-1988; attrition for 1988 by level of instruction; attrition for 1988 by program type; personnel attrition by administrative organization plan for 1988 and 1986 to 1988; attrition by geographic region for 1988 and 1986 to 1988; special education attrition--urban compared with rural, totals for 1986-1988; and finally, a matrix showing attrition rates for special education personnel in 13 selected categories, 1977 to 1988. (DB)

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Information on Personnel Supply and Demand

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ATTRITION OF SPECIAL EDUCATION PERSONNEL IN KANSAS

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Attrition of Special Education Personnel in Kansas

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Federal and state laws and regulations require that every eligible student be provided with an appropriate special education. However, a shortage of qualified personnel has made it difficult for the school districts to meet the full-service provisions of the federal and state special education mandates. Data from the Kansas State Department of Education (KSDE) have indicated that at the beginning of each school year there have been many vacant positions for which no qualified candidate could be found. For this decade to date, the number has ranged from 85 to 314 vacancies. Table 1 reports the number of personnel vacancies for each year from 1980 to 1988. These figures were taken from reports submitted each fall by directors of special education where they are required to indicate the number of budgeted positions they were unable to fill for that particular school year.

TABLE 1
PERSONNEL VACANCIES AT THE BEGINNING
OF A SCHOOL YEAR

Year	Vacancies
1980	314
1981	214
1982	117
1983	85
1984	113
1985	147
1986	146
1987	148
1988	137

The high number of special education vacancies can probably be attributed to two reasons. First, in the years immediately after the passage of PL 94-142, special education was in a period of constant growth, and new

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programs were added annually in almost every school district in the country. In this period of rapid expansion, it was difficult to find sufficient numbers of qualified personnel to meet the demands, and so each fall, there were vacancies. The second reason for the large number of unfilled positions was probably the high number of personnel leaving special education each year. The term "attrition" is applied to personnel who leave the field, and the remainder of this report focuses on the personnel attrition issue.

In 1980, the number of vacancies was so high, a state-wide task force, under the direction of the Commissioner of Education, Mr. Bolton, was initiated to determine causes and solutions. While high attrition rates of previously prepared teachers had been suspected as one of the primary causes of the continuing shortage of special education personnel, very little data was actually available to document this belief. To determine the actual attrition rates for the state, McKnab (1983) compared computer data tapes for two consecutive years, sorting on social security numbers. The computer tapes utilized to do the analysis are used by the state to determine special education reimbursement payments to local districts, based on the number of certified special education personnel employed. Through computer sorting on social security numbers, personnel were identified who had been employed during one year, but not at the beginning of the next year. From this data, attrition tables were developed. Since the original study in 1982, which developed the data base back to 1977, the analysis has been conducted on an annual basis. A summary of the attrition rates from the fall of 1977 through the fall of 1988 for special education personnel is provided in Table 2.

Table 2 displays the total number of personnel employed from 1977 through 1988, the total lost, and the attrition rate for each special education category. (All of the data in this report are headcount data, not full-time equivalent positions.) It is important to note that the names and the number of categories have not remained the same over the years. Until 1985, there were 24 different categories. In 1986, the number was expanded to 38 categories, but two categories, "other" and "inter-related", are no longer used, meaning that now there are data for 36 categories. In 1986, the categories subsumed under "other" (special needs and art therapy, for example) were given their own designations. At the same time, the category of "inter-related" was subdivided and is currently reported by six different types of inter-related arrangements. At the bottom of Table 2 is an entry of Inter-Related Combined, which is a total of inter-related over the years. One is cautioned in comparing the attrition rates of the new subdivided inter-related categories with other categories in Table 2. For example,

TABLE 2

SPECIAL EDUCATION PERSONNEL ATTRITION
TOTALS for 1977 - 1988

AREA	Employed	Lost	%
Recreation Therapy	1	1	100
Other	698	173	24.8
Special Needs	136	28	20.6
Severe/Multiple Handicapped	1054	173	16.4
Inter-Related	3338	528	15.8
Adapted Physical Education	231	36	15.6
Counselors	197	30	15.2
Behavior Disorders	4581	679	14.8
Physical Therapy	391	57	14.6
Hearing Impaired	756	106	14.0
Occupational Therapy	505	70	13.9
Trainable MR	1769	243	13.7
Educable MR	5442	739	13.6
Early Childhood	629	84	13.4
Audiology	166	22	13.3
Homebound	308	40	13.0
Inter-Related Other	86	11	12.8
Learning Disabilities	9536	1133	11.9
Speech/Language	4950	587	11.9
Gifted	3588	425	11.8
Inter-Related TMR/SMH	53	6	11.3
SEIMC	289	32	11.1
Social Work	1123	121	10.8
Vision Impaired	317	34	10.7
Nurse	638	67	10.5
School Psychology	3731	348	9.3
Inter-Related EMR/TMR	101	8	7.9
Inter-Related LD/EMR	633	48	7.6
Special Ed Administration	1058	78	7.4
Inter-Related LD/EMR/BD	756	50	6.6
Physically Impaired	198	12	6.1
Inter-Related LD/BD	253	14	5.5
Music Therapy	41	2	4.9
Work Study	60	2	3.3
Supervisor	84	1	1.2
Art Therapy	6	0	0
Dance/Movement Therapy	2	0	0
Diagnostic Teacher	31	0	0
Total	47736	5988	12.5
Inter-Related Combined	5220	665	12.7

Inter-related LD/EMR at a rate of 7.6 is considerably less than the LD rate of 11.9. However, there has been a decline in attrition rates over the years, as shown in Table 3. The sub-divided categories of inter-related are for only the most recent years, and these years had generally lower

TABLE 3
ANNUAL SPECIAL EDUCATION ATTRITION RATES
FY1977 TO FY1988

Year	Employed	Lost	Rate
1977	2460	373	15.2
1978	2894	479	16.6
1979	3272	573	17.5
1980	3551	573	16.1
1981	3955	601	15.2
1982	4110	458	11.1
1983	4329	545	12.6
1984	4400	649	14.7
1985	4533	681	15.0
1986	4660	495	10.6
1987	4798	561	11.7
1988	4774	468	9.8
TOTAL	47736	5988	12.5

attrition rates, while the other categories, such as Learning Disabilities, represent the 12 total years, and include several years with higher attrition rates.

Discussion of Table 3.

Table 3 displays the number employed, the number lost, and the attrition rate for the years 1977 to 1988. Note that from 1977 through 1981, the rate was 15 to 17 %. The attrition rate declined for the two years of 1982 and 1983, and then rose again in 1984 and 1985. Finally, for the last three years, 1986 to 1988, the rates have fallen again. There can only be speculation for the reasons for these periods of fluctuation. Some possible hypotheses would include economic conditions, where one is forced to hold on to a job, or where few non-teacher husbands are transferring employment, meaning that the predominantly female personnel base would be less effected. Another hypothesis could be that in the early periods of rapid growth in the numbers of special education programs, personnel with less training and skill and/or commitment to special education were placed in the classrooms to meet the needs. They would be expected to leave as other opportunities for employment arose. Therefore, with the weeding out of less qualified or

TABLE 4
SPECIAL EDUCATION PERSONNEL ATTRITION
1988

Area	Employed	Lost	%
Homebound	16	7	44
Counselors	29	9	31
Audiology	18	3	17
Work Study	32	5	16
Music Therapy	14	2	14
Special Ed Administration	100	14	14
Behavior Disorders	451	63	14
Physical Therapy	77	10	13
Occupational Therapy	85	11	13
Nurse	93	12	13
Trainable MR	140	16	11
Adapted Physical Education	35	4	11
SEIMC	27	3	11
Hearing Impaired	68	7	10
Severe/Multiple Handicapped	91	9	10
Educable MR	320	31	10
Gifted	423	40	9
Learning Disabilities	875	82	9
Inter-Related LD/EMR/BD	268	24	9
Inter-Related LD/BD	90	8	9
Early Childhood	113	10	9
Supervisor	46	4	9
Speech/Language	478	40	8
Special Needs	41	3	7
Inter-Related LD/EMR	211	15	7
Social Work	122	8	7
School Psychology	357	23	6
Inter-Related TMR/SMH	18	1	6
Physically Impaired	19	1	5
Inter-Related EMR/TMR	42	2	5
Inter-Related Other	25	1	4
Dance/Movement Therapy	1	0	0
Vision	31	0	0
Art Therapy	2	0	0
Diagnostic Teacher	16	0	0
Recreation Therapy	0	0	0
TOTAL	4774	468	10
All Inter-Related	654	51	8

TABLE 5
SPECIAL EDUCATION PERSONNEL ATTRITION
1986 TO 1988

AREA	Employed	Lost	%
Recreation Therapy	1	1	100
Counselors	98	27	28
Homebound	65	17	26
Special Needs	136	31	23
Hearing Impaired	204	30	15
Behavior Disorder	1383	203	15
Adaptive Physical Education	100	14	14
Inter-Related Other	86	12	14
Inter-Related TMR/SMH	53	7	13
Physical Therapy	183	23	13
Special Ed Administration	319	40	13
Audiology	56	7	13
Severe/Multiple Handicapped	290	36	12
Occupational Therapy	236	29	12
Trainable Mentally Retarded	422	51	12
Nurse	260	31	12
Work Study	60	7	13
Educable Mentally Retarded	1054	117	11
Learning Disabilities	2701	279	10
Gifted	1260	121	10
Inter-Related LD/EMR	633	63	10
Inter-Related EMR/TMR	101	10	10
Inter-Related LD/EMR/BD	756	74	10
Music Therapy/Education	41	4	10
SEIMC	85	8	9
Inter-Related LD/BD	253	22	9
Speech/Language	1417	125	9
Early Childhood	299	28	9
Social Work	36	29	8
School Psychology	1059	67	6
Physically Impaired	50	3	6
Supervisor	84	5	6
Vision Impaired	86	3	3
Diagnostic Teacher	31	0	0
Art Therapy	6	0	0
Dance/Movement/Therapy	2	0	0
TOTAL	14232	1524	11

committed personnel, there now exists a permanent base of special education personnel and the attrition rates will decline.

Table 4 presents the special education personnel attrition data for 1988, listed by order of attrition rate. These personnel would be those who were employed some time during the 1987-88 school year, but who did not return for the fall of 1988. The attrition rate for the total population was 9.8%, rounded to 10% in the table.

Table 5 presents the attrition data for the three-year period of 1986-1988. The data in Table 3 suggested that the three years of 1986 to 1988 had different rates in comparison with earlier periods. The data for 1986 to 1988 were combined in Table 5 to give an indication of attrition over a longer period of time, and therefore probably a more reliable indication of current trends.

In Tables 6 and 7, the data from Table 5 have been separated to provide separate data for those personnel who have teaching as a primary responsibility (Table 6) and those who are mainly support personnel (Table 7). For the period of 1986 to 1988, the teachers a rate of 11.2 %, or about a 2 % higher attrition rate than support personnel. However, for the year of 1988, the situation was reversed, with the support personnel having a 12.1 % rate, or about 2 % higher than the teachers' rate of 9.9.

Table 8 indicates the attrition rates for 1988 by level of instruction. While there are some differences in attrition rates, an explanation is not readily available. For example, the lowest rate, at 7% was the category of Intermediate/Junior High; the highest rate, at 14% (omitting the one category that contained only one person) was for the category of Junior High.

Table 9 indicates the attrition rates for 1988 by program type. The Self-Contained category was the highest at 12%. This would be suspected since the more difficult to manage students and those with the most severe needs are typically placed in this particular category.

In Tables 10 through 12 the attrition data for 1986 through 1988 has been further analyzed to determine rates for different geographic, population, or administrative organizational patterns.

TABLE 6
SPECIAL EDUCATION PERSONNEL ATTRITION
FOR THOSE WITH TEACHING AS A PRIMARY RESPONSIBILITY

CATEGORY	EMPLOYED 1988	LOST 1988	% 1988	EMPLOYED 1986-88	LOST 1986-88	% 1986-88
HOMEBOUND	16	7	44	65	17	26
SPECIAL NEEDS	41	3	7	136	31	23
BEHAVIOR DISORDERS	451	63	14	1383	203	15
HEARING IMPAIRED	68	7	10	204	30	15
ADAPTED PHYSICAL EDUCATION	35	4	11	100	14	14
INTER-RELATED OTHER	25	1	4	86	12	14
INTER-RELATED TMR/SMH	18	1	6	53	7	13
WORK STUDY	32	5	16	60	7	13
TRAINABLE MR	320	31	11	1054	117	12
SEVERE/MULTIPLE HANDICAPPED	91	9	10	290	36	12
EDUCABLE MR	140	16	10	422	51	11
LEARNING DISABILITIES	875	82	9	2701	279	10
GIFTED	423	40	9	1260	121	10
INTER-RELATED EMR/TMR	42	2	5	101	10	10
INTER-RELATED LD/EMR	211	15	7	633	63	10
INTER-RELATED LD/EMR/BD	268	24	9	756	74	10
EARLY CHILDHOOD	113	10	9	299	28	9
INTER-RELATED LD/BD	90	8	9	253	22	9
PHYSICALLY IMPAIRED	19	1	5	50	3	6
VISION IMPAIRED	31	0	0	86	3	3
DIAGNOSTIC TEACHER	16	0	0	31	0	0
TOTAL	3325	329	9.9	10023	1128	11.2

TABLE 7
SPECIAL EDUCATION PERSONNEL ATTRITION
FOR SUPPORT PERSONNEL
FOR 1988 AND 1986-1988

CATEGORY	EMPLOYED 1988	LOST 1988	% 1988	EMPLOYED 1986-88	LOST 1986-88	% 1986-88
RECREATION THERAPY	0	0	0	1	1	100
COUNSELORS	29	9	31	98	27	28
PHYSICAL THERAPY	77	10	13	183	23	13
OCCUPATIONAL THERAPY	85	11	13	236	29	12
AUDIOLOGY	18	3	17	56	7	13
SPEECH/LANGUAGE	478	40	8	1417	125	9
SEIMC	27	3	11	85	8	9
SOCIAL WORK	122	8	7	362	29	8
NURSE	93	12	13	260	31	12
SCHOOL PSYCHOLOGY	357	23	6	1059	67	6
SPECIAL ED ADMINISTRATION	100	14	14	319	40	13
MUSIC THERAPY	14	2	14	41	4	10
SUPERVISOR	46	4	9	84	5	6
ART THERAPY	2	0	0	6	0	0
DANCE/MOVEMENT THERAPY	1	0	0	2	0	0
TOTAL	1149	139	12.1	4209	396	9.4

TABLE 8
SEPCIAL EDUCATION PERSONNEL ATTRITION
FOR 1988 BY LEVEL OF INSTRUCTION

LEVEL	Employed	Lost	%
Preschool	143	14	10
Primary	447	54	12
Intermediate	138	14	10
Junior High	355	49	14
Senior High	474	43	9
Preschool/Primary	1	1	100
Primary/Intermediate	1075	104	10
Intermediate/Junior High	269	19	7
Junior High/Senior High	446	47	10
All Levels	1426	123	8
Total	4774	468	10

TABLE 9
SPECIAL EDUCATION PERSONNEL ATTRITION
FOR 1988 BY PROGRAM TYPE

Program Type	Employed	Lost	%
Consultant	258	23	9
Itinerant	1656	141	8
Resource	1503	142	9
Self-Contained	1219	145	12
Not Reported	138	17	12
Total	4774	468	10

The first variable examined was the geographic location of the school district in the state. It could be hypothesized, for example, that a district in the western part of the state might have higher attrition because of the isolated nature of the area. The geographic regions identified by Skillett (1989) were used. A map has been included to indicate the boundary lines of the regions. The data was tabulated in Table 10 on the basis of the geographic location of the sponsoring district. Therefore, in a few cases, some of the actual land of the cooperative or interlocal might be located in an adjoining geographic region. There are some variations in attrition rates from geographic area to area, but no causal pattern is evident. For example, for regions 1 and 2, in the western third of the state, region 1 was about 1 per cent above the state average and region 2 was one per cent below. Region 5, Sedgwick County, a metropolitan area, had the highest rate, at 14.3 %, and the rural area surrounding Sedgwick county had the lowest rate at 6.6 %.

A second variable examined was whether the urban or the rural districts have a higher attrition rate. An "urban" district was operationally defined as any district located in one of four counties: Sedgwick, Shawnee, Johnson, or Wyandotte. This included 25 school districts. The data are displayed in Table 11. The rural attrition rate of 10.4 % is slightly lower than the urban rate of 11.0 %. The rate for Shawnee County is the highest of the urban counties.

Table 12 compares the attrition rates for interlocals with the other administrative organizational plans, such as cooperatives and districts which operate their own programs, for 1988 and for the years of 1986-1988. For the period of 1986 to 1988, the interlocal rate of 10.5 % was almost identical to the rate for districts not in interlocals, or 10.7 %. However, for only 1988, the rate of interlocals, at 8.4 %, was lower than the others, which was at 10.1 %.

Finally, Table 13 is a summary table which displays attrition rates for certain categories, selected because they included the vast majority of the personnel and they represented all of the major categorical teaching areas. This table provides an interesting and informative method to follow attrition rate trends for certain categories. For example, the annual attrition rates for administration has been rising the last three years, in opposition to the attrition rate declines for the other categories.

Table 12

SPECIAL EDUCATION PERSONNEL ATTRITION
BY ADMINISTRATIVE ORGANIZATION PLAN
FOR 1988 AND 1986 TO 1988

	Employed 1988	Lost 1988	% 1988	Employed 1986-88	Lost 86-88	% 86-88
Interlocals	928	78	8.4	2640	277	10.5
Non-Interlocal	3879	390	10.1	11629	1250	10.7

Summary

This report has examined the attrition of special education personnel in Kansas. For many years in the late 1970's and the early 1980's, the attrition rate for special education personnel was approximately 15 %. This high rate was one of the factors in the LEA in the state finding sufficient numbers of personnel to meet the demands for new and replacement personnel. For the three years since 1986, there has been a decline in attrition, to approximately a 10% average for the three years. It is estimated that this is still 2 to 3 % above the attrition rates for regular education, but the current rate is a significant improvement in comparison with previous years. However, there is the caution that there has been some cyclical trends in attrition rates during this decade. The rates declined in 1982 and 1983, only to rise again in 1984 and 1985, preceding the latest decline for 1986 to 1988.

TABLE 10
SPECIAL EDUCATION PERSONNEL ATTRITION
BY GEOGRAPHIC REGION
FOR 1988 AND 1986 TO 1988

REGION	1988			1886 TO 1988		
	EMPLOYED	LOST	%	EMPLOYED	LOST	%
1	251.0	27.0	11	752	88	12
2	341.0	30.0	9	1012	120	12
3	337.0	24.0	7	1039	101	10
4	663.0	44.0	7	1904	162	9
5	738.0	106.0	14	2183	251	11
6	348.0	30.0	9	1067	144	13
7	986.0	100.0	10	2875	286	10
8	745.0	75.0	10	2285	274	12
9	398.0	32.0	8	1152	101	9
TOTAL	4807.0	468.0	10	14269	1527	11

Consult the map to determine the area covered by each region.

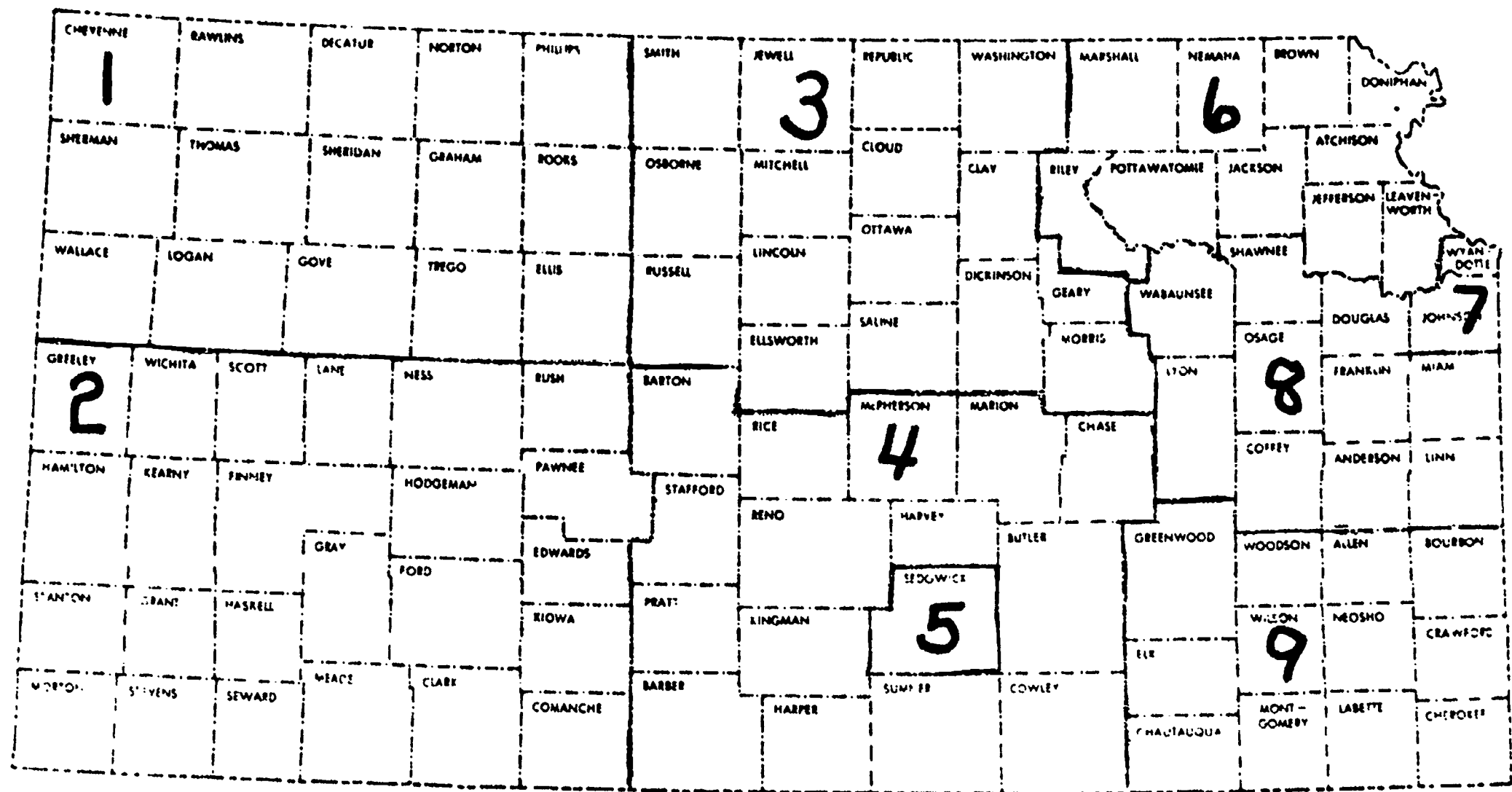


TABLE 11

SPECIAL EDUCATION ATTRITION
Urban Compared with Rural
Totals for 1986 - 1988

AREA	Employed	Lost	%
Total Urban	6357	702	11.0
<u>Johnson County</u>	1743	17	10
Blue Valley	36	0	0
Spring Hill	1	0	0
Gardner	30	3	10
DeSoto	42	11	26
Olathe	606	53	9
Shawnee Mission	1028	105	10
<u>Sedgwick County</u>	2183	251	11
Wichita	1608	187	12
Derby	185	19	10
Haysville	112	10	9
Valley Center	6	2	33
Mulvane	43	6	14
Clearwater	3	0	0
Goddard	12	4	33
Maize	6	0	0
Renwick	5	0	0
Cheney	0	0	0
Sedgwick Interlocal	203	23	11
<u>Shawnee County</u>	1230	155	13
Seaman	118	36	30
Silver Lake	20	4	20
Auburn-Washington	86	12	14
Shawnee Heights	78	2	3
Topeka	928	101	11
<u>Wyandotte County</u>	1132	114	10
Turner	86	12	14
Kansas City	1046	102	10
Total Rural	7912	825	10.4

TABLE 13

Attrition Percentage Rates for Special Education Personnel
For Selected Categories, 1977 to 1988

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	TOTAL
EMR	16	17	17	17	14	11	09	15	15	11	12	10	14
TMR	15	17	09	18	18	13	16	17	18	12	13	11	14
SMH	23	20	33	26	20	10	10	18	20	14	13	10	16
LD	16	16	15	15	13	10	14	13	14	09	12	09	13
BD	16	20	25	16	18	13	17	15	16	15	15	14	15
IR	17	18	23	16	15	13	14	19	13	12	11	08	13
PI	06	05	11	07	00	00	18	07	07	00	12	05	06
GIFT	23	15	15	16	17	11	12	13	18	09	11	09	12
HEAR	14	15	22	16	10	10	16	21	11	15	19	10	14
VIS	06	10	19	14	19	04	10	15	21	07	04	00	11
S/L	14	15	16	16	14	10	09	16	17	06	11	08	12
PSY	10	14	10	11	12	06	09	15	14	06	06	06	09
ADM	06	07	06	09	11	06	07	08	04	14	09	14	07
"OTHER"	15	18	20	18	17	13	12	15	16	15	13	10	15
TOTAL	15	17	18	16	15	11	13	15	15	11	12	10	13

Intrepretation: The 13 categories included in this table were selected on the bases that they represented the largest categories and they represent all of the categorical teaching areas. "Other" is the total for all of the other categories not included. IR, Inter-Related has been combined to show onefigure, not the six separate catagories that are reported by the State.

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