Approved: 4-11-97
Date

MINUTES OF THE HOUSE COMMITTEE ON EDUCATION.

The meeting was called to order by Chairperson Michael R. O'Neal at 3:30 p.m. on March 17, 1997 in Room 519-S of the Capitol.

All members were present except:
Representative Clay Aurand - Excused
Representative John Ballou - Excused
Representative Lloyd Stone - Excused

Committee staff present: Ben Barrett, Legislative Research Department
Avis Swartzman, Revisor of Statutes
Cindy Wulfkuhle, Committee Secretary

Conferees appearing before the committee:
Dr. Van D. Mueller

Others attending: See attached list

Dr. Van D. Mueller appeared before the committee to discuss "Policy Research on the Low Enrollment Weighting Component of Kansas School Finance." In 1994 Dodge City, Hays, Leavenworth, Newton, Pittsburg & Winfield school districts paid for the study. (Attachment 1)

The report addresses such issues as:

- How do school costs change as enrollments increase or decline
- When are schools too small to be economically viable
- Should schools or school districts that do not meet certain cost conditions be consolidated
- How should costs change as the types of services provided change
- What is the relationship between size & resource allocation
- What is the relationship between service delivery structure and costs

The report is based on policy research designed to develop a rational foundation for determining excess costs of operating necessarily small and isolated Kansas schools and to provide policy makers with a low enrollment weighting model which is sensitive to the dual concerns of efficiency and access to quality school programs.

He proposed and defined a system for creating and testing low enrollment weighting models. Several applications of the models to Kansas school districts, high schools, and elementary schools were presented and discussed. A low enrollment formula was proposed. The elements of the new formula include economies of scale and program adequacy. The proposed funding system focuses on schools rather than school districts and includes recommended standards for setting both a ceiling and a floor for low enrollment aid eligibility.

The committee meeting adjourned at 5:15 p.m. The next meeting is scheduled for March 18, 1997.

HOUSE EDUCATION COMMITTEE GUEST LIST

DATE: March 17, 1997

NAME	REPRESENTING
Todd Covault	Emporia USD #253
Marvin Reemer	Dodge City USD 443
Ethel Peterson	The 116th District
Steve McClure	Shawnee Mtn USD 450
ALAN Schuler	Leavenworth USD 453
Dennis Shoemaker	Derby USD 260
Sharon Little	Renfield USD 465
Dorothy Rockefeller	LOWV
Ken Bahr	Hays USD 489
Craig Grant	KNEA
Haley Lowry	
Michael Millett	Washburn Law Student
Aaron C Burnett	USD 501
Jim Allen	KEC KFLC
Patrick Hurley	KEC KAC
Gary Sutton	72nd Dist Legislature
Jacque Oakes	SDE
Mark Tallman	KASB
Diane Gjerstad	USD 259

HOUSE EDUCATION COMMITTEE GUEST LIST

DATE: 3/17/97 3:30 pm

NAME	REPRESENTING
Gary W. Norris, Supt.	USD #305 Salina
Marianna L. Nothern	USD #450
Judy Showalter	Rep 78th Dist

VAN D. MUELLER

BIOGRAPHICAL SKETCH

Van has been a professor of Educational Policy and Administration at the University of Minnesota since 1964, serving as department chairman from 1972-1981. He has had teaching and administrative experiences in Michigan Public Schools and the Michigan Department of Public Instruction. School finance and citizen involvement in education policymaking are Van's areas of teaching and research specialization.

State government experiences include a full-time assignment with the Minnesota State Planning Agency directing a series of school finance studies; chairing the legislatively established Advisory Council on Fluctuating School Enrollments and two State Department of Education Task Forces on School Finance; Regent's representative to the Minnesota Council on Quality Education; and Minnesota representative to the Education Commission of the States. Van also headed a Governor's Task Force on Human Resources Planning. Van has served as a consultant to school districts in ten states and to state school finance studies in Indiana and Minnesota during the late 1970s. He has served as an expert witness for plaintiffs in school finance equity cases in Minnesota, North Dakota, Missouri, South Dakota, Wyoming, Kansas, New Hampshire, and Rhode Island.

Van has served for eight years on the Board of Directors of the National PTA, most recently as National PTA Treasurer. He is a past-president of the Minnesota PTA and a past-vice president of the National PTA. Van is an active member of the American Education Finance Association where he is a past-president. He has also served on the AEFA Board of Directors for four years and was co-editor of the Association's Fifth and Sixth Annual Yearbooks. Van was a member of the Center for Urban and Regional Affairs Panel on the Future of Public Education in Minnesota and served as staff coordinator for the Improving Education in Minnesota program of Spring Hill Center. Since 1978 Van has served as coordinator of the Minnesota Site of the Education Policy Fellowship Program of the Institute for Educational Leadership, Inc.

Van is a graduate of Central Michigan University and the University of Michigan. His doctorate in educational administration is from Michigan State University. In 1980 the Department of Educational Administration and Higher Education at MSU honored him with a distinguished alumni award. Van is married to Dr. Mildred Mueller, Professor of Education at Augsburg College. "Mike" and Van have three daughters, a granddaughter and three grandsons.

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House Education
3-17-97
Attachment 1

Policy Research on the Low Enrollment Weighting Component of Kansas School Finance

Final Report

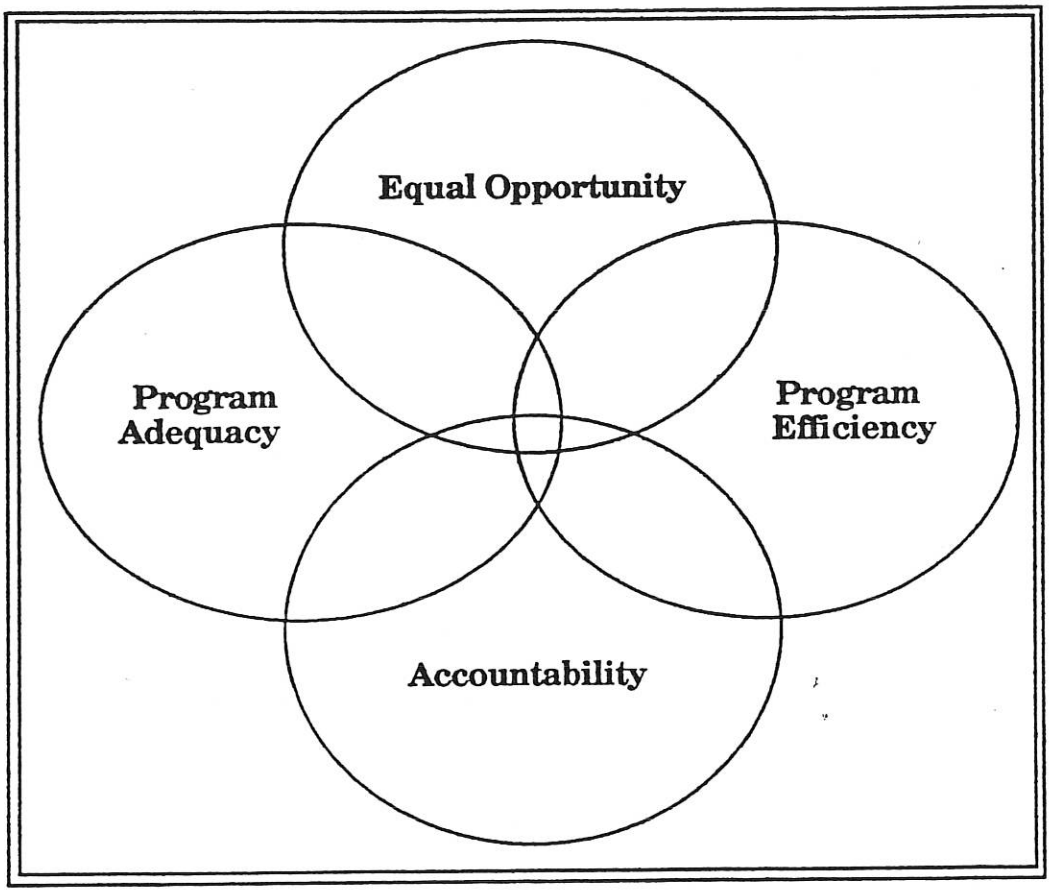
SUMMARY

Van D. Mueller, Ed.D.
Terry H. Schultz, Ph.D.
University of Minnesota

December, 1994

Figure 1

School Finance: Rational Considerations for Policymakers



Rational Educational Funding Policies Reflect Commitment to:

Equal Opportunity: Funding provides access to adequate instructional programs for *all* students, regardless of school/district size and location

Program Adequacy: Funding guarantees all qualified schools are funded at the level required to provide adequate instructional programs, with "adequacy" determined through application of widely accepted standards

Accountability: Funding is based upon the costs of providing instructional programs for;

School/districts in different geographic areas
Students with differing instructional needs

Efficiency: Funding encourages instructional delivery systems that are cost effective, reflecting economies of scale

Exhibit 1

Qualified or Necessarily Small (Eligibility) Model for Funding Kansas' Schools

School-Based Isolation Factors

DESCRIPTION/PURPOSE

The intent of this model is to produce production efficiency in addition to spending efficiency. The isolation factor includes the following criteria within districts with student populations up to one section:

- High school (9-12) enrollment of 100 or less
- Distance of 10 miles or more to the nearest adjacent high school in an adjoining district
- One high school in the district
- School district K-12 enrollment of 325 students or less

DATA ELEMENTS	SOURCES
High school enrollment (9-12)	Defined by SDFQPA
Distance to nearest adjacent high school in an adjacent district	Location of school facilities on Kansas Department of Transportation general county maps and calculation
Number of high schools in district	Kansas State Board of Education Directory - current year
K-12 district enrollment	Defined by SDFQPA

ASSESSMENT (Research and Practice)

Strengths

1. Focus on single section high school enrollment takes into account minimal production efficiency while also beginning to address program quality.
2. Focus exclusively on high school enrollment acknowledges the need for reaching a standard for access to high school programs.
3. Qualifying factor of 10 miles or more to another high school is achievable given the quality of roads in Kansas.

Weaknesses

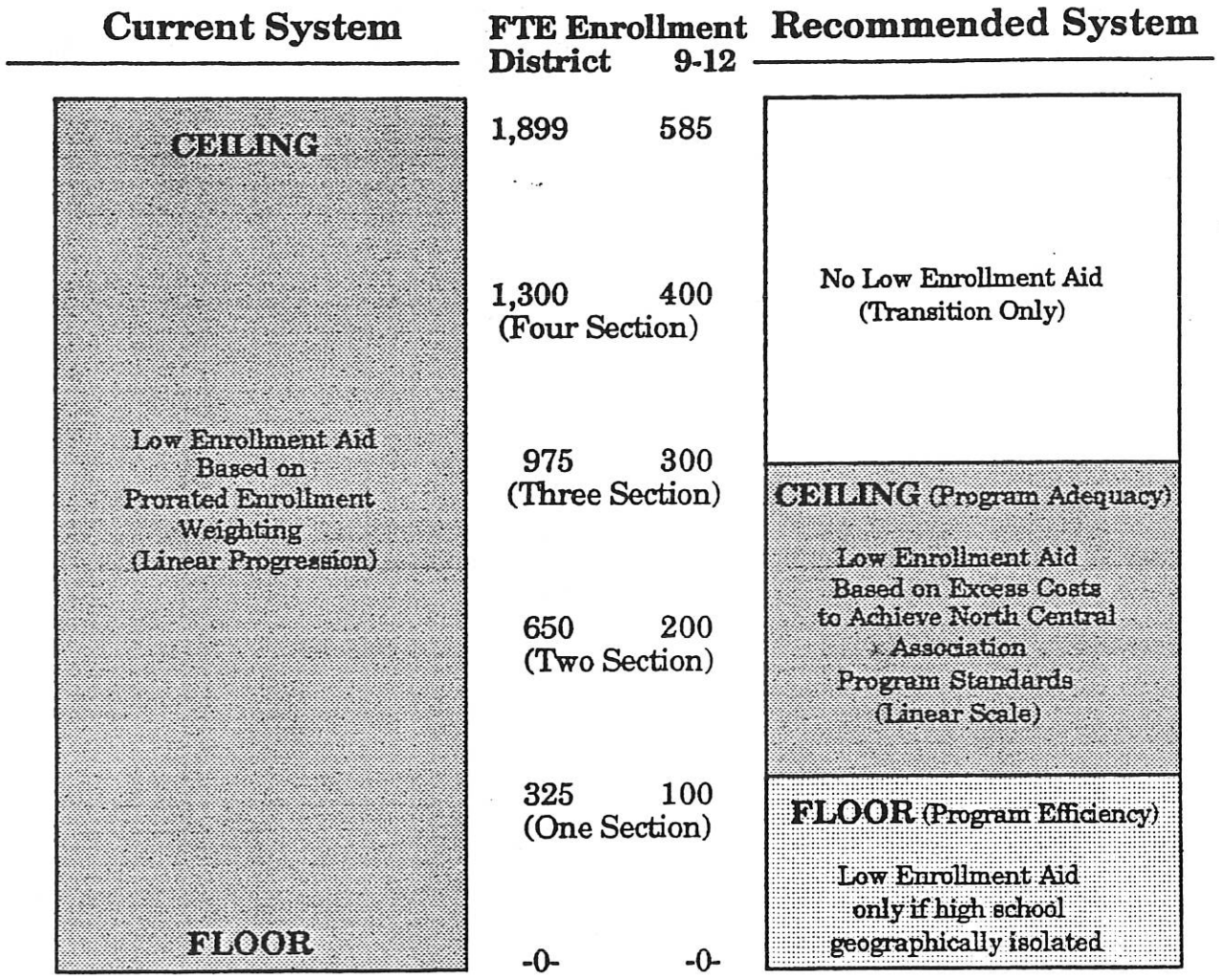
1. Qualification of eligibility factor of a single section school (9-12 = 100 enrollment) sets only a minimal standard for high school efficiency and program access.
2. Distance factor of ten miles or more to the nearest high school may significantly underestimate the capacity and willingness of rural residents to travel for high quality schools.

CONCLUSION

The creation of school-based isolation factors of high school (9-12) enrollment and distance to the nearest high school focuses directly on the production efficiency of the school district while recognizing the need to provide basic experiences to meet both student needs and program standards.

Figure 2:

Kansas Low Enrollment Formulae
Current and Recommended



No Low Enrollment Aid

Low Enrollment Weighted Aid

Qualification as "Necessarily Small"

Critical Features of Recommended System

* Focus on 9-12 high school rather than K-12 district
* Provide both ceiling and floor for low enrollment aid eligibility
* Base excess costs on program standards (North Central Association)

Policy Research on the Low Enrollment Weighting Component of Kansas School Financing

Executive Summary

Van D. Mueller & Terry H. Schultz
University of Minnesota
December 5, 1994

Context of the Research

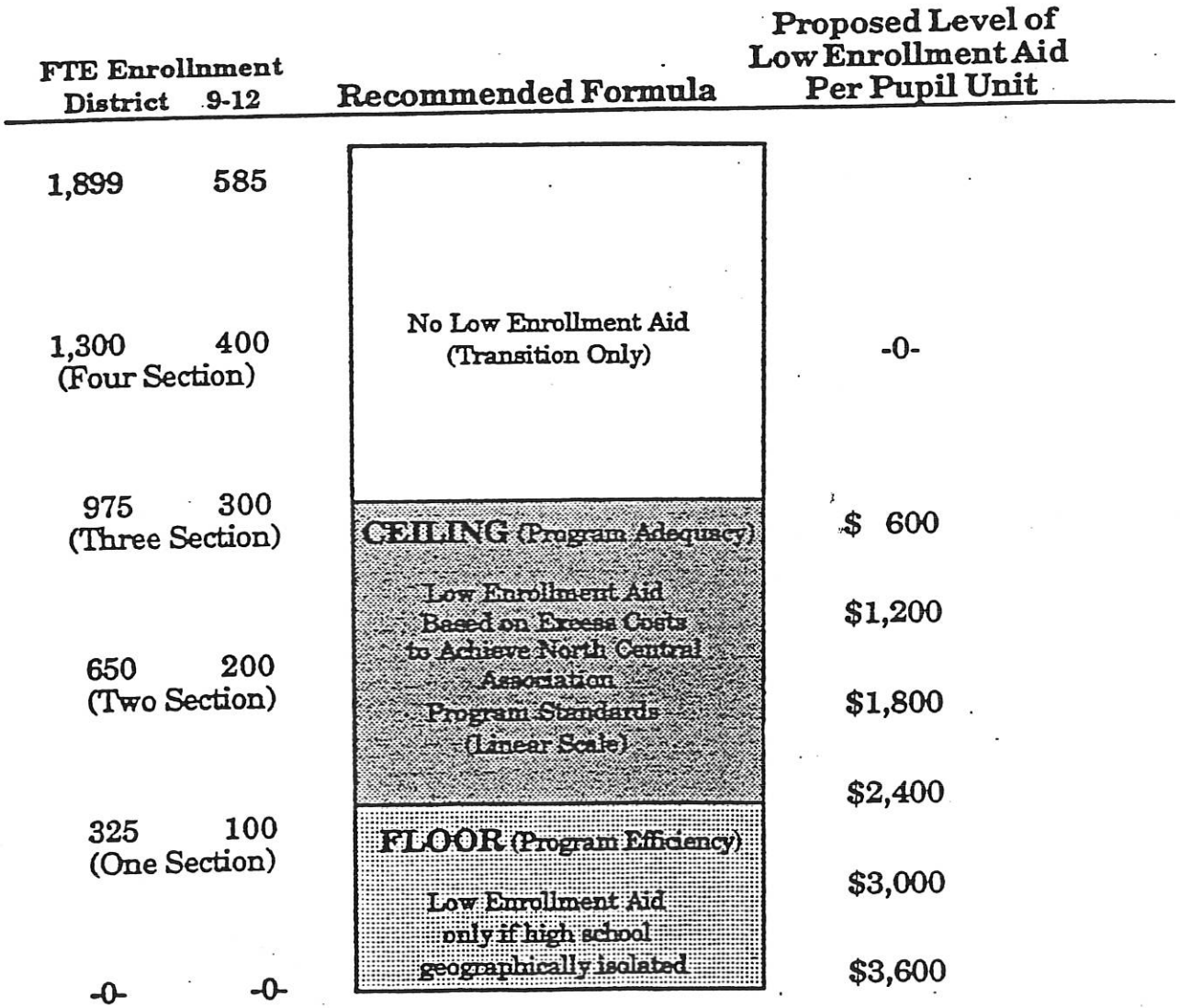
In December, 1993, Judge Maria Luckert declared the school funding formula in the State of Kansas "irrational". Despite the Supreme Court's recent action overturning the lower court's decision, the funding formula in Kansas remains inequitable and inefficient. This funding, based on a linear scale, provides phantom student units for education in rural and small school districts. Districts with fewer than 1,900 are funded with a .95 proration enrollment weighting factor, providing them with estimated enrollment (FTE) and estimated weighted enrollment. One consequence of this formula is the provision of very low pupil teacher ratios in "small" school districts, providing opportunities not available in larger districts. Because the current funding formula is linked to spending rather than to program costs, inefficiencies also result. This combination of inequity and inefficiency constitutes poor public policy.

Geographical isolation creates necessarily small schools, and for these schools, low enrollment weighting is essential to insure provision of adequate instructional programs. However, Kansas' school funding formula does not discriminate between districts that are small because of geographical isolation and districts that remain small by choice. Since the cost of providing education in Kansas accounts for a large proportion of the state's budget, efforts to improve pupil and taxpayer equity must, for reasons of economy, look beyond the existing policy allocating phantom units to districts with fewer than 1900 students which are currently considered "low enrollment" districts in Kansas.

The lower court's decision found the concept of low enrollment weighting to

Figure 3:

Recommended Formula: Reverse Linear Funding for Small High Schools



be permissible, but ruled that extending this weighting to schools with up to 1,900 students was excessive. After this judicial decision was announced, efforts to examine alternative funding procedures based upon factors considered "rational" were initiated. Criteria guiding the development of rational school funding programs are presented in Figure 1. Information from several sources was utilized to develop alternative funding formulas for Kansas:

- Current school funding research
- Information about school funding in other states and Canadian provinces
- Existing data about Kansas districts and schools

Assumptions and Purposes of the Research

Development of alternative school funding models for the State of Kansas was guided by the principles of equity, adequacy and efficiency. The following goals were considered to be essential:

- Funding formulas must be *rational*. That is, their development must reflect objective criteria linked to effective public policy for funding educational programs. Since the current funding formula in Kansas has been judged "irrational" alternative formulas must *not* be based solely upon historical precedent.
- Funding must provide equity through an *adequate instructional program* available for all pupils, regardless of district/school size. Program adequacy must be determined based upon a widely accepted standard.
- Funding must accommodate *economies of scale*, which result in increased costs of providing educational programs for students in schools that are necessarily small because of geographic isolation.
- Funding must be *efficient*, with low enrollment support provided only to those districts meeting criteria establishing them as necessarily small because of geographic isolation factors. Providing additional revenues to districts not meeting these criteria who remain small by choice is neither rational or efficient.
- The unit of measurement (district or school) for determining low enrollment aid must reflect the level at which issues related to size actually affect economies of scale and ability to offer adequate programs.
- Funding formulas must reflect "best practice" identified through examination of current research and funding policies in other states.

- Alternative funding formulas must be tested hypothetically and through application of data from selected, representative districts in Kansas, to insure the implications of implementation are well understood.

Definition of Terms

Program Adequacy	Extent to which instructional program provides access to educational programs judged to be comprehensive in depth and breadth according to a widely-recognized external standard.
North Central Association	Establishes program standards for universities, colleges and schools to promote ongoing internal and external evaluation leading to improved instruction. NCA services are provided in 18 states, including Kansas.
Effective	Ideas and activities involved in education that best facilitate the regular and systematic development of the learner (Good, 1973).
Efficiency	Ability to achieve desired results with economy of time, effort, and fiscal resources in relation to the amount of work accomplished (Good, 1973). "There are two ways in which efficiencies can be achieved: (a) holding the quality/output constant while lowering the cost; or (b) holding the cost constant while raising the quality/output. Value measurements of a school or school district's efficiency are greatly complicated by the absence of tangible outputs and standard definitions of quality in the world of education" (Nachitagal & Haas, 1988, p. 9-10).
Economy of Scale	Relationship between size of organization and cost of providing services.
Production Function	Relationship between factors of production and output. In schools, this suggests that access to standardized, consistent instructional programs is necessary to produce consistent outputs, or learning.
Low Enrollment Weighting	Recognizes and compensates for higher fixed and operating costs per pupil which are necessary to provide an adequate educational program in low enrollment districts.
Unit of Measurement	Particular category used to determine funding. Kansas' current school funding program allocates low-enrollment

	aid using the district as the unit of measurement. Recommendations from this research suggest that high schools should be the unit of measurement for determination of low-enrollment aid.
Geographical Isolation/ Necessarily Small	Isolation that is due to factors beyond the control of local decision-makers. Districts may be small because of low population density, physiographic features that impede pupil transportation, or other factors that limit reorganization options (Bass, 1980).
Rural	Any area that is not urban is considered rural. The United States Bureau of Census defines an urban area as either (a) an area consisting of a central city and surrounding densely settled area with a combined population of 50,000 or more; or (b) a community of 2,500 or more people (U.S. Department of Commerce, 1990).
Section(s)	Multiple equivalents of 25-30 students per grade level. Used to determine staffing and instructional resources required to offer particular instructional programs.

Creating and Testing Low-Enrollment Weighting Models

Design Considerations

The goals of "adequacy" and "efficiency" guided the development of alternative school funding models for Kansas;

- **Funding adequacy** refers to support for provision of instructional programs for *all* students conforming to established standards
- **Funding efficiency** refers to established standards for qualification of "necessarily small schools", differentiating between those which are small by choice, and those which are small by necessity because of factors related to geographic isolation

Rational school funding policies establish **ceilings** for low enrollment weighting, providing additional funding to those schools which are too small to support a minimum program. They also establish **floors**, or standards which differentiate between schools that are necessarily small or small by choice, providing low enrollment funding to those schools which qualify as necessarily small because of factors related to geographic isolation.

To develop a rational formula, current educational funding research was examined, approaches used in other states and in Canadian provinces were

reviewed, and instructional program standards were studied. Using this background information, criteria for adequacy and efficiency were identified.

Rationale

School finance research and existing funding policies document the importance of providing supplemental school aid to districts and schools with low enrollment as a means of insuring equity and access to quality instructional programs for all students, regardless of the size and location of their school. These funding programs are based upon understanding that economies of scale result in higher fixed and operating costs for comparable programs in small schools. Policy makers who support programs such as low-enrollment weighting recognize that without supplemental funds, small schools will be unable to offer comprehensive, programs, resulting in limited opportunities for the students they serve. Such programs are considered "inadequate" and therefore unacceptable.

Several issues require resolution when developing low-enrollment weighting model for school funding;

- What is meant by "program adequacy?"
- Is there is difference in ability to offer comprehensive programs in small districts between elementary and secondary schools?
- At what enrollment level is the size of school sufficient to allow program adequacy without supplemental aid?
- What is the most appropriate unit of measurement - district or school?

For this research, "program adequacy" was determined according to standards established by the North Central Association (NCA). These and similar standards are used in states and schools throughout the nation and are widely recognized as indicators of instructional quality, systematic internal and external evaluation, and ongoing efforts toward school improvement. The Standards are summarized in Exhibits 1 and 2 and are listed as program components in Tables 1, 2, and 3.

To determine the relationship between school size and the cost of offering instructional programs meeting North Central standards, hypothetical school models were developed for one, two, three, and four section elementary and high schools, with "section" referring to the number of classrooms per grade level. These hypothetical models are shown in Tables 1, 2, and 3.

Exhibit 1

North Central Association Standards for Elementary Schools

Summary of Standards Guiding Kansas School Finance Policy Recommendations

- **Pupil/Professional Staff Ratio:** Ratio of pupils to teachers and other professional staff members shall not exceed 20 to 1. Enrollment in kindergarten class shall not exceed 25.

- **Administrative Staffing:**

Enrollment	Administrative Staffing Required
Fewer than 251	At least half-time principal
251 to 599	Full-time principal (more than one school, maximum of 450 students)
600 to 800	Full-time principal plus at least half-time assistant principal

- **Pupil Personnel Services:** School shall provide for guidance services, provided by guidance counselor or other specially trained personnel.

- **Media Services:**

Enrollment	Media Staffing Required:
Fewer than 400	1./2 time specialist, or 1/5 time specialist and full-time aide
400 to 999	1 full-time or 1/2 time specialist and full-time aide

Exhibit 2

North Central Association Standards for High Schools

Summary of Standards Guiding Kansas School Finance Policy Recommendations

Staffing

- **Student/Professional Staff Ratio:** Ratio of students to teachers and other professional staff members shall not exceed 25 to 1.

- **Administrative Staffing:**

Enrollment	Principal	Assistant Principal
Fewer than 250	.5 FTE	
250 to 500	1.0 FTE	
501 to 1000	1.0 FTE	.5 FTE

- **Pupil Personnel Services:** Qualified guidance counselors must be provided at a ratio of 1 for each 450 students, with not less than a half-time counselor.

- **Media Services:**

Enrollment	Qualified Specialists Required
Fewer than 300	At least half-time specialist
300 to 499	At least full-time specialist or half-time specialist and full-time aide

Curriculum and Instruction

- **Program of Studies:** School shall offer and teach at least 38 Carnegie units or their equivalent each year in grades 9 through 12 in the following areas:

Subject (s)	Carnegie Units
Language Arts	4 units
Science	4 units
Mathematics	4 units
Social Studies	4 units
Foreign Languages	At least 2 units of 1 foreign language
Fine Arts	At least 1 unit in art and 1 unit in music
Practical Arts	4 units in subjects such as business, industrial or vocational courses, homemaking, agriculture
Health and Physical Education	1 unit

Table 1

Elementary Staffing and Expenditure Requirements for Uniform, Comprehensive Program*

	One Section School (175 students)			Two Section School (350 students)			Three Section School (525 students)			Four Section School (700 students)		
	FTE**	Average Salary***	Total Salary	FTE	Average Salary	Total Salary	FTE	Average Salary	Total Salary	FTE	Average Salary	Total Salary
Regular Classroom Teachers	6	$32,000		12	$32,000		18	$32,000		24	$32,000	
Instructional Specialists: Music, Art, Physical Ed.	1.5			3			4.5			6		
Special Education	1.5			3			4.5			6		
Kindergarten	.5			1			1.5			2		
Media	.5			1			1			1		
Counselor	.5		$336,000	1		$672,000	1		$976,000	1		$1,280,000
Principal	.5	$52,000	26,000	1	$52,000	52,000	1	$52,000	52,000	1	$52,000	52,000
TOTAL PROFESSIONAL STAFF/SALARIES	**11.0**		**$362,000**	**22.0**		**$724,000**	**31.5**		**$1,028,000**	**41.0**		**$1,332,000**
Professional Staff/ Student Ratio	**1:15.9**			**1:15.9**			**1:16.7**			**1:17.1**		
Professional Staff Salaries/ Student * **			**$ 2,069**			**$ 2,069**			**$ 1,958**			**$ 1,903**

* "Uniform Comprehensive Program" is defined as meeting current North Central Accreditation (NCA) standards

** FTE = Full-Time-Equivalent

*** Based on average salaries for teachers and principals in Kansas

Table 2

High School Regular Classroom Teacher Requirements for Uniform, Comprehensive Program*

Subject Area	One Section School FTE**	One Section School Number of Sections	Two Section School FTE	Two Section School Number of Sections	Three Section School FTE	Three Section School Number of Sections	Four Section School FTE	Four Section School Number of Sections
Language Arts	.67	4	1.17	7	1.83	11	2.17	13
Science	.67	4	1.0	6	1.33	8	1.67	10
Mathematics	.67	4	1.0	6	1.33	8	1.67	10
Social Studies	.67	4	1.17	7	1.83	11	2.17	13
Foreign Language	.33	2	.33	2	.5	3	.67	4
Fine Arts								
Art	.17	1	.33	2	.5	3	.67	4
Music	.17	1	.33	2	.5	3	.67	4
Practical Arts Business Industrial Arts Home Economics Vocational Agriculture	.67	4	1.0	6	1.33	8	1.67	10
Health/Phys. Ed.	.17	1	.33	2	.5	3	.67	4
Elective or Discretionary	2.17	13	0	0	0	0	0	0
SUB-TOTAL	**6.36**	**38**	**6.67**	**40**	**9.67**	**58**	**12.03**	**72**
Study Hall Section	1.17	7	1.17	7	1.17	7	1.17	7
TOTAL	**7.53**	**45**	**7.84**	**47**	**10.84**	**65**	**13.2**	**79**

* "Uniform Comprehensive Program" is defined as meeting current North Central Association (NCA) standards
** FTE = Full-Time-Equivalent

Table 3

High School Staffing and Expenditure Requirements for Uniform, Comprehensive Program*

	One Section School			Two Section School			Three Section School			Four Section School		
	FTE**	Average Salary	Total Salary	FTE	Average Salary	Total Salary	FTE	Average Salary	Total Salary	FTE	Average Salary	Total Salary
Regular Classroom Teachers												
Language Arts	.67	$32,000		1.17	$32,000		1.83	$32,000		2.17	$32,000	
Science	.67			1.0			1.33			1.67		
Mathematics	.67			1.0			1.33			1.67		
Social Studies	.67			1.17			1.83			2.17		
Foreign Language	.33			.33			.5			.67		
Fine Arts												
Art	.17			.33			.5			.67		
Music	.17			.33			.5			.67		
Practical Arts	.67			1.0			1.33			1.67		
Business												
Industrial Arts												
Home Economics												
Vocational Agriculture												
Health/Phys. Ed.	.17			.33			.5			.67		
Study Hall	1.17			1.17			1.17			1.17		
Elective or Discretionary	2.17			0			0			0		
Media Generalist	.5			.5			.5			1.0		
Counselor	.5		$272,960	.5		$282,560	1.0		$393,600	1.0		$502,400
Principal	.5	$52,000	26,000	.5	$52,000	26,000	1.0	$52,000	52,000	1.0	$52,000	52,000
TOTAL PROFESSIONAL STAFF/SALARIES	**9.03**		**$298,960**	**9.33**		**$308,560**	**13.3**		**$445,600**	**16.2**		**$554,400**
PROFESSIONAL STAFF/ STUDENT RATIO	**1:11.1**			**1:21.4**			**1:22.6**			**1:24.7**		
PROFESSIONAL STAFF SALARIES/STUDENT			**$ 2,990**			**$ 1,543**			**$ 1,485**			**$ 1,386**

"Uniform Comprehensive Program" is defined as meeting current North Central Association (NCA) standards
FTE = Full-Time-Equivalent
Based on average teacher's and principal's salary in Kansas

Production and Efficiency Functions

Production (program) and efficiency functions reveal interesting patterns in elementary and high schools. At the elementary level (See Table 1), staff/student ratio and professional salary costs/ student are relatively stable. One-section schools have a 1/15.9 student staff ratio which increases to 1:17.1 in a four section school. Similarly, the professional staff salary/student ranges from $2,069 in the smallest to $1903 in the four section school. These are modest savings, suggesting that small elementary schools can operate efficiently.

In high schools, these production and efficiency functions are both similar and different. Table 2 shows the professional staff required to offer a comprehensive instructional program in one, two, three, and four section schools. These staffing projections assume that schools offer a seven period day, with one study hall available each period. When comparing the staff required to meet NCA standards, it is interesting to note that a one section school requires 7.53 teachers, and a two section school requires 7.83 teachers.

Table 4 shows the ratio of professional staff to students for programs conforming to NCA standards, revealing that in a one section school the ratio is 1:11, and increases to 1:21 in a two section school. As school size increases, it is possible to utilize professional staff more efficiently. In *actual* secondary schools, this effect is more pronounced (see Tables 4, 5, and 6), since very small high schools are unlikely to employ teachers with the combination of licensures necessary to staff a comprehensive program efficiently.

In Kansas, the 1:11 ratio in the hypothetical one section high school is, in fact, optimistic. The student/staff ratios in Kansas high schools shown in Table 6 provide a stark example of the inefficiency of small schools under existing funding mechanisms. None of the one-section high schools approach the recommended ratio of one staff member for each eleven students, and, in fact, among all the one, two, and three section high schools, only Fredonia (a three section school) is staffed at more than 1:11. However, since three section schools *should* be staffed with approximately one staff for each 22 students (to meet North Central program standards), Fredonia's staffing ratio could legitimately be considered excessive. Table 4 further illuminates the student/staff ratio-related inequities accruing to larger schools, who do not have resources comparable to schools considered "small" in Kansas. If schools that are small by choice can offer programs at a ratio of 7 students/teacher, these opportunities should also be available to larger schools. Since this expensive alternative -- providing comparable staffing levels in large schools -- is prohibitive, policy makers must redress the existing inequities.

Table 4

Kansas School District (1993-94) Selected Data by Enrollment Groupings

County	District	Enrollment (K-12)	Enrollment (9-12)	Additional Low Enrollment Pupil Units	Average Teacher Salaries & Benefits	FTE Classroom Teachers	Pupil/ Teacher Ratio
1. Single Section Model: District Enrollment Less than 325							
a. Stearns	Moscow #209	187	54	164.5	$ 32,290	23.2	8:1
b. Logan	Triplains #275	112	38	122.9	24,147	17.0	7:1
c. Reno	Pretty Prairie #311	315	85	176.2	29,151	29.3	11:1
d. Phillips	Logan #326	234	74	177.5	30,949	22.6	10:1
2. Two Section Model: District Enrollment 325-649							
a. Saline	Ell-Saline #307	419	132	217.9	29,190	36.5	15:1
b. Reno	Fairfield #310	494	140	245.0	28,027	37.0	13:1
c. Ellis	Ellis #388	388	153	206.4	33,412	32.4	17:1
d. Montgomery	Cherryvale #447	668	180	290.9	30,303	50.0	17:1
3. Three Section Model: District Enrollment 650-974							
a. Coffey	Burington #244	1016	294	325.7	33,590	89.5	11:1
b. Barber	Barber County North #254	802	233	312.9	34,223	60.3	13:1
c. Harvey	Hesston #460	819	242	317.0	32,424	61.3	17:1
d. Wilson	Fredonia #484	961	296	325.8	28,531	59.0	21:1
4. Four Section Model: District Enrollment 975-1299							
a. Stevens	Hugoton #210	1023	281	325.7	32,887	78.4	13:1
b. Johnson	Spring Hill #230	1294	400	293.8	33,413	90.8	14:1
c. Thomas	Colby #315	1339	415	282.2	29,678	100.0	13:1
d. Brown	Hiawatha #415	1289	386	297.3	31,147	85.0	13:1
5. Larger than Four Section Model: District Enrollment Greater than 1300							
a. Bourbon	Ft. Scott #234	2197	651	0	30,792	151.1	19:1
b. Pratt	Pratt #382	1407	425	267.3	33,954	96.3	15:1
c. Butler	Rose Hill #394	1648	463	180.3	34,480	98.0	17:1
d. Labette	Parsons #503	2031	528	0	32,360	126.2	16:1

SOURCE: 1993-94 Kansas Superintendent's Report

Table 5
School Staffing & Expenditure Requirements Analysis

	Kindergarten - Grade 6				Grades 9 - 12					
	Enrollment	Total FTE Professional Staff	Staff/ Student Ratio	$ Per Pupil Difference	Enrollment	Total FTE Professional Staff	Staff/ Student Ratio	$ Per Pupil Difference	Low Enrollment Aid/ Pupil*	Add'l Teachers FTE**
1. One Section Model	**175**	**11.0**	**1:15.9**	**NA**	**100**	**9.03**	**1:11.1**	**NA**	NA	NA
a. Moscow #209	112	10.0	1:11.2	-$ 347	54	9.9	1:5.5	+$ 554	$3123	18.1
b. Triplains #275	51	10.4	1:4.9	-$ 432	38	8.1	1:4.7	+$ 723	$3895	18.1
c. Pretty Prairie #311	229	10.9	1:21	-$ 13	85	11.1	1:7.7	+$ 539	$1986	21.5
d. Logan #326	183	12.5	1:10.6	+$ 334	74	11.1	1:6.7	+$ 866	$2693	20.4
2. Two Section Model	**350**	**22**	**1:15.9**	**NA**	**200**	**9.33**	**1:21.4**	**NA**	NA	NA
a. Ell-Saline #307	339	24.9	1:13.6	+$ 264	132	13.6	1:9.7	+$ 969	$1846	26.5
b. Fairfield #310	265	17.0	1:15.6	-$ 529	140	13.4	1:10.4	+$ 877	$1761	31.0
c. Ellis #388	161	17.7	1:9.1	-$ 892	153	16.3	1:9.4	+$1616	$1888	21.9
d. Cherryvale #447	383	26.5	1:14.5	-$ 370	180	17.42	1:10.3	+$ 882	$1546	32.8
3. Three Section Model	**525**	**31.5**	**1:16.7**	**NA**	**300**	**13.3**	**1:22.6**	**NA**	NA	NA
a. Burlington #244	558	35.0	1:15.9	+$ 211	294	29.6	1:9.9	+$1941	$1138	34.4
b. Barber County North #254	416	43.4	1:9.6	+$ 1042	220	20.4	1:10.8	+$1104	$1385	32.5
c. Hesston #460	438	38.6	1:12.3	+$ 579	242	22.8	1:10.6	+$1273	$1374	34.7
d. Fredonia #484	499	26.8	1:18.6	+$ 442	296	22.7	1:13	+$ 995	$1204	40.5
4. Four Section Model	**700**	**41.0**	**1:17.1**	**NA**	**400**	**16.2**	**1:24.7**	**NA**	NA	NA
a. Hugoton #210	568	38.5	1:14.8	-$ 120	281	28.8	1:10.7	+$1826	$1130	35.0
b. Spring Hill #230	690	31.4	1:22.9	-$ 498	400	30.4	1:13.2	+$1238	$ 805	31.2
c. Colby #315	687	43.5	1:15.8	+$ 107	415	33.5	1:12.4	+$1287	$ 748	33.75
d. Hiawatha #415	672	29.3	1:22.9	-$ 542	386	29.5	1:13.1	+$1130	$ 819	33.9
5. Larger than Four Section Model* **	**700**	**41.0**	**1:17.1**	**NA *** **	**400**	**16.2**	**1:24.7**	**NA *** **	NA ***	NA ***
a. Ft. Scott #234	1184	106.8	1:11.1	-$ 1761	651	48.8	1:13.3	+$1502	- 0-	-0-
b. Pratt #382	718	64.6	1:11.1	+$ 1099	425	354	1:12	+$1587	$ 647	27.9
c. Rose Hill #394	939	32.9	1:28.5	-$ 288	463	37.0	1:12.5	+$1613	$ 388	18.6
d. Parsons #503	1149	93.1	1:13.3	+$ 1545	528	41.1	1:12.8	+$1560	-0-	-0-

* LEA/Pupil = Total District Low Enrollment Aid -:- Total District Enrollment
Additional FTE Teachers = Total District LEA -:- District Average Teacher Salary
SOURCE: 1993-94 Kansas Supterintendent's Report

*** NOTE: North Central Program staffing needs were projected for one, two, three, and four section schools. Schools in the "Larger than Four Section" section were compared against projections for four-section schools.

Table 6

High School Class Sections and Staffing Analysis

	9-12 Enrollment	Class Sections	FTE Staff	Staff/Student Ratio	Staff Difference	Total $ Difference in High School*
1. One Section Model	**100**	**45**	**9.03**	**1:11.6**	**NA**	**NA**
a. Moscow #209	54	43	9.9	1:5.5	+ .67	+$ 29,889
b. Triplane #275	38	49	8.1	1:4.7	- .93	-$ 27,487
c. Pretty Prairie #311	85	50	11.1	1:7.7	+2.07	+$ 45,803
d. Logan #326	74	57	11.1	1:6.7	+2.07	+$ 64,065
2. Two Section Model	**200**	**47**	**9.33**	**1:21.4**	**NA**	**NA**
a. Ell-Saline #307	132	67	13.6	1:9.7	+4.27	+$ 127,843
b. Fairfield #310	140	66	13.4	1:10.4	+4.07	+$ 122,779
c. Ellis #388	153	83	16.3	1:9.4	+6.97	+$ 247,323
d. Cherryvale #447	180	81	17.4	1:10.3	+8.09	+$ 158,761
3. Three Section Model	**300**	**65**	**13.3**	**1:22.6**	**NA**	**NA**
a. Burlington #244	294	129	29.6	1:9.9	+16.3	+$ 570,679
b. Barber County North #254	220	105	20.4	1:10.8	+ 7.1	+$ 242,984
c. Hesston #460	242	113	22.8	1:10.6	+ 9.5	+$ 308,028
d. Fredonia #484	296	153	22.7	1:13	+ 9.4	+$ 294,477
4. Four Section Model	**400**	**79**	**16.2**	**1:24.7**	**NA**	**NA**
a. Hugoton #210	281	155	28.8	1:10.7	+15.6	+$ 513037
b. Spring HIll #230	400	153	30.4	1:13.2	+14.2	+$ 495,259
c. Colby #315	415	171	33.5	1:12.4	+17.8	+$ 534,185
d. Hiawatha #415	386	153	29.5	1:13.1	+13.8	+$ 436,283
5. More than Four Section Model ***	**400**	**79**	**16.2**	**1:24.7**	**NA *****	**NA *****
a. Ft. Scott #234	651	252	48.8	1:13.3	+32.6	+$1,033,426
b. Pratt #382	425	189	35.4	1:12	+19.2	+$ 674,359
c. Rosehill #394	463	163	37.0	1:12.5	+20.8	+$ 746,601
d. Parsons #503	528	217	41.1	1:12.8	+24.9	+$ 823,618

* alary Difference = FTE Staff Difference X Average Salary by District for High School in that District

SOURCE: 1993-94 Kansas Superintendent's Report

*** NOTE: North Central Program staffing needs were projected for one, two, three, and four section schools. Schools in the "Larger than Four Section" section were compared against projections for four-section schools.

This analysis of Kansas' funding formula clarifies the *exaggerated* diseconomies of scale characterizing very small high schools in Kansas, and the resulting inequities which place students in larger high schools at a disadvantage. The current formula encourages inefficiency and creates inequity.

Table 3 analyzes staffing costs in each of the different sized high schools, revealing that costs per pupil are significantly higher ($2,990) in the one section than in the two section high school ($1,543). Although these costs continue to decrease as the number of sections increases (to $1,386 in a four section school), the rate of decrease declines.

Table 5 compares staffing patterns in one, two, three, four, and larger than four-section districts against each other and against the standards suggested by the North Central Association. On this chart, it is interesting to note that small school districts tend to spend less per pupil on elementary instructional programs than is recommended, allocating disproportionate amounts of low enrollment aid for high school programs. These decisions are made because of the costs of providing adequate programs at the high school level. With limited resources, and the real differences between the costs of elementary and high school programs, draining resources from elementary is perhaps inevitable, although it may place younger students at a disadvantage. This drain on elementary resources to support high school programs offers further support for a funding formula driven by size of high school (9-12).

The research examined as a foundation for developing Kansas' school funding recommendations predicted relationships between school size, cost, and staffing efficiency. It also predicted inequities in very small schools, where, typically students have access to limited instructional opportunities. The size, cost, and efficiency predictions were validated through the development of hypothetical one, two, three, and four section elementary and high schools, and through the analysis of actual staffing in Kansas elementary and high schools. In contrast, some inequities in Kansas are very different from those predicted, because the current funding program creates staffing *advantages* for students in very small schools. Low enrollment weighting is necessary to support the additional costs of providing adequate instructional programs in very small schools, and should be based upon high school (9-12) enrollment, since cost differences at that level are most affected by school size. However, the inefficiency and inequity caused by the existing formula should be addressed by policy makers, with alternatives designed to consider the needs of all students, schools, and districts in the state.

Policy Recommendations

Proposed LEA Formula

Several alternatives were considered in developing recommendations for the ceiling on low enrollment weighting in Kansas. Based upon analysis of hypothetical and actual schools, it is recommended that high school size (grades 9-12) be utilized as the unit of measurement for determination of eligibility for low enrollment aid. The complexity of comprehensive high school programs, with corresponding needs for staff with specialized licensure supports this recommendation, as does analysis of hypothetical and actual instructional programs. The costs of offering comprehensive high school programs clearly exceed what can be offered in small schools without supplemental aid. Figure 2 provides a comparison of the current low enrollment funding formula and the alternative model recommended in this report. Exhibit 1 provides an operational definition of the recommended formula.

Essential Elements of Proposed Formula

Economies of Scale and Low-Enrollment Weighting

Diseconomies of scale resulting from costs of educational programs in sparsely populated areas require that low enrollment weighting be provided for small schools. Research and practice indicate that this is particularly true for secondary schools, where extreme differences in the cost per pupil are attributable to size of school.

To determine the actual implications of school size and cost, four size categories of elementary and secondary schools were identified (See Table 7). North Central program standards were used as the operational definition of program adequacy, and staff required to provide an instructional program meeting these standards were projected into hypothetical examples of schools in each of the size categories.

These models and hypothetical program projections were consistent with research, revealing widely varying program costs in secondary schools, and little cost-variation resulting from size in elementary schools. Adequate instructional programs can be offered in one, two, three or four-section elementary schools with comparable pupil-teacher ratios and costs per pupil. In contrast, the costs of

TABLE 7
Size Categories Determining Program Costs

District Size Categories

Equal to or less than 325	Single section district
326 - 649 students	Two section district
650 - 974 students	Three section district
975 - 1299 students	Four section district
Greater than 1300 students	

High School Size Categories

Equal to or less than 100	Single section school
101 - 200 students	Two section school
201 - 300 students	Three section school
301 - 400 students	Four section school

providing an adequate instructional program are very high in single-section schools, which are characterized by low pupil-teacher ratios. When school size increases to three or four sections, costs per pupil stabilize, as do pupil-teacher ratios.

Recommendations for Program Adequacy: Formula Ceiling

As a result of this analysis, it is recommended that Kansas policy makers use secondary school size as the unit determining low enrollment aid, since costs are directly related to school size in secondary schools. The current Kansas formula using district size is contaminated and made irrational through its inclusion of elementary schools, which reflect little relationship between size and cost. Changing to secondary schools as the unit determining low enrollment aid would make the formula rational, reflecting actual relationships between size and cost.

For secondary schools, it is recommended that low-enrollment weighting be provided for one and two-section schools, since these are most adversely affected by economies of scale. The ceiling, then, is established as "less than three sections." This constitutes rational public policy, since it reflects *actual relationships between size and cost*, and *guarantees access to an adequate instructional program* for students in all schools, regardless of size. It also places a ceiling on low-enrollment aid, providing additional funding only to those schools which are too small to provide an adequate instructional program.

It is recommended that high schools within this category be funded on a linear scale, with low enrollment aid decreasing as schools reach the "ceiling" level. It is

also recommended that in the smallest schools, low enrollment aid/pupil should not exceed the amount provided through the basic foundation program. With basic foundation aid currently allocated at $3,600 per pupil, then, no very small school would be allocated more than $7,200 per high school pupil. Figure 3 illustrates the relationship between size of high school (9-12) and availability of low-enrollment aid.

With three or more high school sections, it is possible to offer programs that are both comprehensive and efficient. Table 8 provides data about the 41 Kansas school districts with enrollments in grades 9-12 exceeding 300, and a district enrollment greater than 975 who would no longer be eligible for LEA under this recommendation.

Recommendations for Program Efficiency: Formula Floor

To insure "efficiency," a floor must be established for low enrollment aid, differentiating between those schools which are small by choice and small by necessity. Several alternative formula floor funding models were developed and considered. Exhibit 3 provides the outline of the recommended formula floor, suggesting that low enrollment funding be provided for high schools with fewer than 100 students, located 10 miles or more from the nearest high school. The "floor," then, differentiates between schools which are necessarily small because of factors related to geographical isolation and those which are small by choice.

To analyze the consequences of this proposed formula, Tables 9, 10, and 11 provide information about districts affected by the recommended formula floor. The districts included on each table have high schools (grades 9-12) smaller than 100 in enrollment and are in districts enrolling fewer than 325 students. Table 9 provides data on the 26 Kansas school districts which would not meet the recommended criteria to receive low enrollment aid because of the proximity of another high school within ten miles. Table 10 provides the same analysis, except the distance factor is raised to 11 or 12 miles, indicating that an additional 16 districts would cease to receive LEA if this distance standard were adopted. Finally, in Table 11, the distance standard of 13 to 15 miles is employed, and would increase the number of ineligible districts by an additional 17.

Kansas also has six small school districts which operate more than one high school. Table 12 provides information about these districts. If the size standard of 100 or greater enrollment in grades 9-12 and the distance standard of more than ten

Table 8

High Schools (9-12) Three Sections or Larger* Receiving Low Enrollment Aid

District/#	FTE	9-12 Enrollment	Certificated Staff	9-12 Student/ Staff Ratio	LEA/ FTE	LEA/ District FTE
1. Labette Co., #506	1,664	566	47.9	11.8	132.5	$283.00
2. Iola, #257	1,834	521	37.1	14.0	44.0	85.00
3. Paola, #368	1,777	497	42.9	11.6	79.2	158.00
4. Gardner/Edgerton, #231	1,804	468	34.8	13.4	62.8	124.00
5. Nickerson, #309	1,422	451	34.8	13.0	245.6	613.00
6. Abilene, #435	1,480	437	36.6	11.9	224.7	539.00
7. Rosehill, #394	1,589	429	29.8	14.4	178.4	399.00
8. DeSoto (10-12), #232	1,830	427	34.2	12.5	46.6	90.00
9. Ulysses, #214	1,699	423	34.3	12.3	123.3	258.00
10. Clay Center, #379	1,670	417	34.1	12.2	122.9	266.00
11. Chapman, #473	1,313	416	31.1	13.4	278.5	753.00
12. Pratt, #382	1,350	414	33.0	12.5	268.2	705.00
13. Basenor-Linwood, #458	1,506	409	28.5	14.4	214.2	505.00
14. Columbus, #493	1,772	399	29.3	13.6	262.1	525.00
15. Spring HIll, #230	1,246	390	28.0	13.9	294.4	839.00
16. Circle, #375	1,385	385	28.3	13.6	257.8	661.00
17. Wamego, #320	1,387	385	35.1	11.0	257.0	658.00
18. Colby, #315	1,301	381	31.5	12.1	281.6	768.00
19. Sante Fe Trail, #434	1,292	380	27.8	13.7	283.8	780.00

(continued on next page)

ıble 8 (continued): High Schools (9-12) Three Sections or Larger* Receiving Low Enrollment Aid

District/#	FTE	9-12 Enrollment	Certificated Staff	9-12 Student/ Staff Ratio	LEA/ FTE	LEA/ District FTE
20. Marysville, #364	1, 026	379	31.2	12.1	323.1	1118.00
21. Larned, #495	1, 176	372	30.3	12.3	307.6	929.00
22. Hiawatha, #415	1,228	368	28.9	12.7	297.7	861.00
23. Piper, #203	1, 213	368	28.0	13.1	310.1	881.00
24. Atchison (10-12), #409	1,905	354	29.8	11.9	126.7	236.00
25. Goodland, #352	1, 196	344	34.3	10.0	303.1	890.00
26. Clearwater, #264	1,038	337	25.3	13.3	323.2	1105.00
27. Chapparal-Anthony, #361	1,053	333	33.4	9.9	320.7	1081.00
28. Girard, #248	1,126	331	27.3	12.1	314.9	993.00
29. Louisberg, #416	1,140	325	26.5	12.3	313.0	993.00
30. Kingman, #0331	1,227	317	26.7	11.9	282.2	863.00
31. Morris Co., #417	1,078	311	28.1	11.1	320.1	1054.00
32. Bladwin, #348	1,127	310	28.0	11.1	314.7	991.00
33. Tonganoxie, #464 (10-12)	1,518	309	27.8	11.1	209.7	490.00
34. Hugoton, #210	977	302	28.5	10.6	325.2	1182.00
35. Scott County, #466	1,073	301	29.6	10.2	320.4	1060.00
36. Osawatomie, #367	1,338	303	26.0	11.7	313.0	830.00
37. Haven, #312	1,166	293	25.6	11.4	309.2	941.00
38. Burlington, #244	975	278	27.8	10.0	325.8	1186.00
39. Holton, #336	1,001	276	23.6	11.7	325.1	1153.00
40. Russell, #407	1,205	275	26.4	10.4	302.6	891.00
41. Sabetha, #441	1,064	264	23.8	11.1	321.3	1072.00

* High school larger than 300 students (9-12), and district larger than 975 FTE pupils

miles from another high school were applied to these districts, the high schools at Hope, Axtell, and Bennington would not qualify for low enrollment aid.

Transition Issues

It is essential that the implementation of the recommendations in this report address transition issues. First, those districts with district enrollments between 975 and 1899 with high school enrollments greater than 300 or three sections must be protected from an abrupt loss of funding and the likely consequences of a loss of educational program quality. It is recommended that their present LEA be phased out over a four year period at an annual rate of $300 per student, or 25% of current LEA per student, whichever is the lesser amount.

Transition needs are also likely to be a factor for the Kansas districts which will not meet the eligibility for LEA under the suggested floor. It is recommended that their aid be reduced according to a time-table and system similar to that of the three section or larger districts.

An additional transition issue is related to the level of financial support for the LEA. The goal for this factor should be to fully fund all eligible districts for their excess cost requirements to enable high school program parity with the three section high school standard. This excess cost factor should be inversely prorated according to high school size, with aid decreasing as high school size approaches the level of three-sections. As an interim measure, the LEA per eligible high school pupil should not exceed the level of general state school support per pupil ($3,600), and should be inversely prorated according to high school size.

Summary

Summary of Design Concepts

This report offers compelling information for policy makers who make difficult decisions about the nature of support provided for educational programs. The proposed formula provides accountability through equal access to adequate instructional programs. Linking funding to instruction, rather than to spending provides a guaranteed minimum program.

Outcomes of the current funding formula in Kansas suggest that inefficiencies are encouraged when funding programs allow districts capable of offering adequate programs to staff at levels far beyond those considered necessary by credible professional associations such as NCA. This analysis also suggests that standards

Table 9

Low Enrollment Aid Floor *
Distance to Nearest High School 10 or Fewer Miles

N = 26

County	District #	District Name	District Enrollment	Grade 9-12 Enrollment	Distance in Miles
Anderson	479	Crest-Kincaid	314	107	10
Clark	219	Minneola	285.5	64	10
Doniphan	486	Elwood	193.5	60	6
Edwards	502	Lewis	191	64	10
Gove	291	Grinnell	165	41	10
	292	Wheatland	167	58	10
Gray	371	Montezuma (South Gray)	181.5	61	10
	476	Copeland	112	20	10
	477	Ingalls	276	78	7
Greenwood	386	Madison-Virgil	296.4	75	9
Hodgman	227	Jetmore	294.5	62	10
Jewell	278	Mankato	303	85	10
	279	Jewell	203	64	10
Kiowa	424	Mullenville	100.5	24	9
	474	Haviland	187.9	58	10
Labette	505	Chetopa	285	78	9
Lincoln	299	Sylvan Grove	195	63	10
Meade	225	Fowler	153.5	46	10
Nemaha	451	B&B (St. Benedict)	245.5	53	7
Osage	456	Marais/Des/Cygnes	272	99	10
Phillips	324	Eastern Heights	172	73	6
Republic	426	Pike Valley	281	86	8
Rice	401	Chase	194.5	51	7
Smith	238	West Smith County	191.5	71	6

* 9-12 Enrollment 100 or Less
District Enrollment 325 or Less

Table 10

Low Enrollment Aid Floor *
Distance to Nearest High School 11 or 12 Miles

N = 16

County	District #	District Name	District Enrollment	Grade 9-12 Enrollment	Distance in Miles
Cowley	471	Dexter	181.8	79	12
Doniphan	425	Highland	292.5	84	11
	433	Midway	221	54	11
Greenwood	390	Hamilton	125.5	38	11
Harvey	369	Burrton	291.5	81	11
Jewell	104	White Rock	194	51	11
Marion	397	Centre	288	82	12
	411	Goessel	283.5	77	12
Ness	304	Bazine	135.5	56	11
Norton	212	Northern Valley	205	55	12
Reno	311	Pretty Prairie	306.5	85	11
Riley	384	Blue Valley	293.5	85	12
Stafford	349	Stafford	316.5	100	11
Sumner	360	Caldwell	337.5	98	11
	509	South Haven	237.5	71	11
Washington	221	North Central	164.5	51	11

* 9-12 enrollment 100 or less
District enollment 325 or less

Table 11

Low Enrollment Aid Floor *
Distance to Nearest High School 13 to 15 Miles

N = 17

County	District #	District Name	District Enrollment	Grade 9-12 Enrollment	Distance in Miles
Barton	354	Claflin	329	79	13
Butler	492	Flinthills	255.5	83	15
Cheyenne	103	Cheylin	222.5	70	15
Clark	220	Ashland	256.5	82	15
Elk	283	Elk Valley (Longton)	206	77	15
Ford	381	Spearville	305.9	89	15
Graham	280	West Graham-Morland	118.6	42	13
Harper	511	Attica	182	84	13
Kingman	332	Cunningham	316.5	94	15
Morton	217	Rolla	196.5	72	15
Ness	301	Nes Tres La Go	79.5	24	13
	302	Smokey Hill	193.5	56	13
Rooks	269	Palco	178.6	57	14
Stafford	351	Macksville	278.5	91	15
Stevens	209	Moscow	180.5	45	13
Sumner	359	Argonia	243	74	14
Wallace	242	Weskan	119.5	48	13

* 9-12 enrollment 100 or less
District enrollment 325 or less

Table 12

Small Kansas School Districts with Two High Schools and Distance to Nearest High School

County	District #	District Name	District Enrollment	9-12 High School	9-12 Enrollment	Distance in Miles
1. Cloud	334	Southern Cloud	275	Glasco	31	15
				Miltonval	46	17
				TOTAL	77	
2. Coffey	245	Leroy-Gridley	367	Gridley	39	13
				Leroy	53	13
				TOTAL	92	
3. Dickenson	481	Rural Vista	413	Hope	62	9
				White City	56	16
				TOTAL	118	
4. Marshall	488	Axtell-Bern-Summerfield	384	Axtell	73	6
				Bern	54	13
				TOTAL	127	
5. Ottawa	240	Twin Valley	482	Tescott	64	16
				Bennington	85	10
				TOTAL	149	
6. Washington	233	Barnes	390	Linn	89	11
				Hanover	96	13
				TOTAL	185	

Eligibility for LEA based on 9-12 enrollment of 100 or greater, district enrollment of 325 or greater, and a distance to nearest high school of more than 10 miles

should be established differentiating between schools that are necessarily small because of factors related to geographical isolation, and schools that remain small by choice. Economies of scale have a significant impact on the cost of educational programs in small schools, and where factors of geographical isolation require this inefficiency, state support should be provided. Policy makers must decide, however, whether to continue to support programs that are small by choice, not necessity.

Proposed Funding Formula: Similarities to and Differences from Current Practice

The recommended low enrollment weighting model is similar to existing practice in Kansas, which provides supplemental funding to small school districts. It differs from the current formula by using high schools (9-12) rather than school districts as the unit of measurement, and recommends that both floors and ceilings be established for low enrollment funding. The current formula is driven by spending considerations. In contrast, the proposed alternative formula is driven by program considerations, and by the development of criteria for qualification as a "necessarily small" school. This alternative formula will provide funding to schools which are small because of geographic isolation rather than small by choice.

Summary of Recommendations

Examination of the implications of Kansas' LEA program revealed clear themes which should guide policy makers as they consider funding reforms. These are summarized in Exhibit 4. First, the State should adopt funding procedures including program based definitions of LEA need, providing this support to insure program adequacy in small high schools. The formula should specify a floor and ceiling, providing production and efficiency functions. High schools that are small due to geographic isolation should be differentiated from those which are small by choice, with LEA funding provided only to those meeting qualification as "necessarily small." Finally, policy makers should develop transitional plans to phase in these restrictions on LEA, providing decreasing interim aid to districts that do not qualify under the new formula.

The funding formula recommended for implementation in Kansas is based upon rational factors. It reflects current research related to funding K-12 educational programs, analysis of factors affecting schools in Kansas, and provides accountability through its focus on opportunity to learn through equal access to quality instructional programs. By guaranteeing Kansas' students access to such

programs, defined according to a well-established standard, and by limiting support to schools legitimately incurring excess costs due to economies of scale, Kansas policy makers will fulfill their obligation to constituents and future citizens, by providing access to educational opportunities that respect geographical realities and are cost effective.

Exhibit 4:

Policy Recommendations for LEA Reform

The Kansas Legislature should:

- Commit to the timely opportunity to provide adequacy, efficiency and accountability in school funding, through provision of a comprehensive LEA model which addresses both **program adequacy and efficiency.**

- Commit to a **program-based definition of LEA** need and to an **excess cost model** providing LEA support based solely on 9-12 enrollment.

- Commit to a **ceiling** (program adequacy) for qualification for LEA based on three-section high school (grades 9-12 = 300 students) and school district of 975 FTE students.

- Commit to a **floor** (efficiency) for eligibility for LEA based on one high school per district, a single-section 9-12 enrollment of 100 or greater, and a distance to the nearest high school of greater than ten miles.

- Commit to a system of **transition** funding for districts with enrollments greater than 975 and less than 1900 and for districts that are small by choice (less than one section in grades 9-12 (100 students), with another high school closer than ten miles). This transition should phase out LEA over four years at an annual rate of $300 per student, or 25% of current LEA per pupil, whichever is the lesser.

- Commit to an interim level of support for LEA for all eligible districts based on an adjustable linear scale model with per student funding in grades 9-12 ranging up to $3600 per student, or at a level equal to the current state support.

- Acknowledge the continued existence of the six small school districts with two high schools and apply the same eligibility standards to the high schools in these districts.

About the Authors

Van D. Mueller has been a professor of Educational Policy and Administration at the University of Minnesota since 1964, serving as department head from 1972-1981. His areas of specialization and research focus include school finance and citizen involvement in education policymaking. He has K-12 teaching and administrative experience in Michigan and the Michigan Department of Public Instruction.

Van has served as an expert witness for plaintiffs in school finance equity cases in Minnesota, North Dakota, Missouri, South Dakota, Wyoming and Kansas.

He is actively involved in national and international educational organizations, including the American Educational Finance Association (past president, yearbook editor), National Parent-Teacher Association (past national treasurer and vice-president), and Institute for Educational Leadership (Minnesota Site Coordinator). He is on the Editorial Board of the *Journal of Educational Finance*.

Van is a graduate of Central Michigan and the University of Michigan, with his doctorate earned in educational administration from the Michigan State University. In 1980, he was honored with MSU's Distinguished Alumni Award.

Terry H. Schultz is on the faculty of the University of Minnesota's Educational Policy and Administration program, specializing in educational leadership, politics, and finance. She has also organized and taught in liberal arts college graduate programs in education in the Minneapolis-St. Paul area.

Working in the public schools for 20 years, she was a special education teacher in the Minneapolis Public Schools, and served as a middle school principal, high school principal and assistant superintendent in several suburban districts. She continues to be actively involved in professional development activities for educational leaders in Minnesota school districts.

Terry worked for plaintiff districts in Kansas and South Dakota, examining instructional program equity. She served as an expert witness for plaintiffs in Rhode Island.

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Van and Terry are co-authoring a school finance textbook scheduled for publication in summer, 1995, entitled, ***School Finance Leadership: Removing Barriers to Opportunity, Access and Equity***.