

# Comparative Effects of Demographic and Economic Change on Rural and Other School Districts

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Six-year trend data on enrollment, adjusted assessed valuation, unappropriated fund balance, delinquent taxes receivable and adjusted maintenance cost were analyzed to assess the impact of demographic and economic change on rural school districts. Rural districts were grouped into four stratifications on the basis of enrollment size; 1) less than one section per grade, 2) one section per grade, 3) two sections per grade and 4) three sections per grade. To permit additional comparisons, all other districts were placed in four geographic/enrollment stratifications; 1) large towns, 2) non-metropolitan cities, 3) suburbs and 4) urban. The comparative district stratification/trend analysis model was a useful applied research method. Rural school districts with fewer than three sections per grade experienced greater adverse effects as the result of community demographic and economic change.

Generalizing from anecdotal data becomes an issue in identifying problems unique to rural schools and in formulating appropriate policy responses. This study explored the use of trend data to assess comparative effects of demographic and economic change on rural districts of differing enrollment size and districts in other geographic/enrollment size stratifications in one state (Minnesota).

Recent information published by the Minnesota Planning Agency indicated that rural areas are no longer experiencing population growth [1]. Projections by the State Demographer anticipate that between 1990 and 2000 the populations of 30 rural Minnesota counties will decline [2]. Minnesota Department of Health data for 1986 indicated that deaths exceeded births in 12 rural counties. These statistics were dramatized by a newspaper feature article with the opening sentence, "Grace Lutheran Church in Ada tells the story best: For every baby baptized into the big church last year, two members of the congregation were laid to rest in the sprawling cemetery on the southeast side of town." In regard to school enrollments the article said, "After years of shrinking class sizes only 100 students are expected to graduate from the county's five high schools in 1990"[3].

Enrollment history collected by the Minnesota Department of Education indicated that actual statewide enrollments decreased 4.1 percent during the period 1980-81 through 1984-85. Among the regional Educational Cooperative Service Units (ECSUs), the Northeast region with a rural/mining economy had the largest decrease (9.9 percent) followed by the agricultural Southwest and West Central region with a decrease of 5.5 percent. While the same report projected a statewide enrollment increase of 2.2 percent for the years 1985-86 to 1990-91,

enrollments in the Northeast ECSU are expected to decrease 10.5 percent and enrollments in the Southwest and West Central ECSU are expected to decrease by 1.7 percent. Seventy-five districts (17 percent) are expected to have a total enrollment decline of 10 percent or more. The 2.2 percent statewide increase represents a growth of 14.3 percent in grades 1-6 and a decline of 8.4 percent in grades 7-12 [4]. Lower birth rates in rural counties indicate that districts serving those areas can expect a smaller share of the projected enrollment increase in grades K-6.

Recent economic trends in rural areas of the case study state have been unfavorable. Low prices for agricultural commodities have made farming unprofitable for many operators. Dion and Raup reported a drop of 48 percent in the estimated average value of Minnesota farm land from the high-point of \$1,310 per acre in 1981 to \$686 per acre in 1985 [5]. Stinson and Sigalla found that a \$265 million drop in farm income in Southwest Minnesota between 1974 and 1977 resulted in a \$47 million drop in non-agricultural income, a loss of 3,650 full and part-time jobs and a drop of \$3.1 million in town commercial property valuation [6]. Employment in mining occupations in the Northeast dropped from 13,131 jobs in 1977 [7] to 4,216 jobs in 1987 [8]. Concern for the impact of these demographic and economic trends on rural school districts prompted the present study.

## STUDY DESIGN

The study was designed to 1) take into account the important fact of diversity in enrollment size among rural districts, 2) permit comparisons among rural districts

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grouped by enrollment size with all other districts in descriptive geographic/enrollment size stratifications and 3) emphasize trends as opposed to cross sectional comparisons. The comparative district stratification/trend analysis model was carried out in the following steps:

- 1) The following data were obtained from the State Department of Education for all districts (N = 435) in machine readable form for the years 1980-81 through 1985-86 except that projected enrollment was for years 1987-88 through 1990-91:
  - a) Enrollment history measured in average daily membership (ADM).
  - b) Projected enrollment expressed in average daily membership (PADM).
  - c) Pupil units in weighted (K = .5, grades 1-6 = 1.0, grades 7-12 = 1.4) average daily membership used by the state for revenue distribution and unit expenditure calculations (WADM).
  - d) Equalization Aid Review Committee adjusted assessed valuation (EARC).
  - e) Financial condition of the operating funds (General, Food Service, Transportation and Community Education) as measured by the unappropriated fund balance (UFB).
  - f) Delinquent taxes receivable for all funds.
  - g) Adjusted maintenance cost per weighted pupil unit in average daily membership (AMC/WADM).

Four districts were dropped from the study because of missing data leaving a final N = 431.

- 2) All school districts were placed in one of the following geographic/enrollment size stratifications on the basis of 1985-86 ADM:
  - a) *Rural—less than one section/grade.* Rural school districts with 15 or fewer students per grade and total ADM of 199 or fewer students (N = 29).
  - b) *Rural—one section/grade.* Rural school districts with 16 to 30 students per grade and total ADM from 200 to 399 students (N = 109).
  - c) *Rural—two sections/grade.* Rural school districts with 31 to 60 students per grade and total ADM from 400 to 700 students (N = 110).
  - d) *Rural—three sections/grade.* Rural school districts with 61 to 90 students per grade and a total ADM from 781 to 1,170 students (N = 53).
  - e) *Large towns.* Districts serving cities/towns in greater Minnesota with populations of 5,000 to 9,999 on the 1980 U.S. Census (N = 67).
  - f) *Non-metropolitan cities.* Districts serving greater Minnesota cities with populations larger than 10,000 on the 1980 U.S. Census (N = 21).
  - g) *Suburban.* Districts serving communities surrounding the cities of St. Paul and Minneapolis (N = 38).

h) *Urban.* Districts serving the metropolitan cities of Duluth, Minneapolis, St. Paul and Rochester (N = 4).

- 3) All data were entered into a database at the University of Minnesota Computer Center. Statistical Package for the Social Science (SPSS) was used for sorting and calculation of subtotals, means, standard deviations, percents and percents change in each stratification and for state totals. Data for all districts within each stratification were included in the analyses, allowing results to be treated as population parameters and eliminating the necessity to specify probability levels.

## RESULTS OF THE STUDY

Results of the study are reported in sections describing trends for the selected indicators. Tables report means, standard deviations and percents for each geographic/enrollment size stratification and the entire state by year.

### *Average Daily Membership (ADM)*

Mean ADM for all stratifications by year are reported in Table 1 and indicate that on a percent basis the greatest enrollment declines were in rural districts with less than one section per grade (−18.2 percent) followed by rural districts with one section per grade (−11.2 percent) and rural districts with two sections per grade (−9.9 percent). Only the suburban districts experienced a greater decrease (−7.5 percent) than rural districts with three sections per grade (−7.1 percent). Enrollment decline is more critical to smaller districts because of its proportionally greater effect on student based revenue and on capacity to offer secondary elective courses.

### *Projected Average Daily Membership (PADM)*

PADMs through 1990-91 are reported for the eight stratifications in Table 2 and suggest that the decline experienced between 1980-81 and 1985-86 is expected to bottom-out in the years immediately ahead. However, continued moderate decline is expected in the smallest rural schools. Mean PADM for rural districts with less than one section per grade is expected to decline by −3.1 percent, for rural districts with one section per grade by −2.0 percent, and in rural districts with two sections per grade by −1.6 percent compared with −1.2 percent for the entire state.

### *Adjusted Assessed Valuation (EARC)*

The adjusted assessed valuation, referred to as the Equalized Assessment Review Committee (EARC) valuation, indicated the value of real property available for tax support of schools. Table 3 presents the mean EARC valuation (actual dollars) for districts in each stratification. Special event information affecting the



TABLE 2

Projected Average Daily Membership (PADM) Trends in Minnesota School Districts  
Categorized by Geographic/Enrollment Size Stratifications 1987-88 through 1990-91

District Geographic/ Enrollment Size Stratifications	1987-88		1988-89		1989-90		1990-91		% Change FY88-FY91
	PADM	% Change	PADM	% Change	PADM	% Change	PADM	% Change	
<b>Rural Districts</b>									
<b>&lt;1 Section/Grade</b>									
<b>Enrollment</b>									
<b>&lt;200 (N=29)</b>									
Subtotal	4,658		4,655		4,589		4,534		
Mean	161	-	161	0	158	-1.9	156	-1.3	-3.1
S.D.	44		45		46		46		
% State Total	.7		.7		.7		.7		
<b>Rural Districts</b>									
<b>1 Section/Grade</b>									
<b>Enrollment</b>									
<b>200-399 (N=109)</b>									
Subtotal	31,993		31,904		31,715		31,399		
Mean	294	-	293	-.3	291	-.7	288	-1.0	-2.0
S.D.	66		66		66		67		
% State Total	4.6		4.6		4.6		4.5		
<b>Rural Districts</b>									
<b>2 Sections/Grade</b>									
<b>Enrollment</b>									
<b>400-780 (N=110)</b>									
Subtotal	61,427		61,238		60,907		60,441		
Mean	558	-	557	-.2	554	-.5	549	-.9	-1.6
S.D.	114		116		118		121		
% State Total	8.8		8.8		8.8		8.7		
<b>Rural Districts</b>									
<b>3 Sections/Grade</b>									
<b>Enrollment</b>									
<b>781-1,170 (N=53)</b>									
Subtotal	50,202		50,213		50,091		49,960		
Mean	947	-	947	0	945	-.2	943	-.2	-.4
S.D.	115		120		126		134		
% State Total	7.2		7.2		7.2		7.2		
<b>Large Towns</b>									
<b>Population</b>									
<b>5,000-9,999 (N=67)</b>									
Subtotal	126,446		126,430		125,800		125,081		
Mean	1,887	-	1,887	0	1,878	-.5	1,867	-.6	-1.1
S.D.	841		844		841		849		
% State Total	18.2		18.1		18.1		18.0		
<b>Non Metro Cities</b>									
<b>Population</b>									
<b>&gt;10,000 (N=21)</b>									
Subtotal	81,317		81,699		81,920		82,150		
Mean	3,872	-	3,890	.5	3,901	.3	3,912	.3	1.0
S.D.	1,727		1,756		1,772		1,811		
% State Total	11.7		11.7		11.8		11.8		
<b>Suburban (N=38)</b>									
Subtotal	244,515		244,319		243,269		243,791		
Mean	6,435	-	6,429	-.1	6,402	-.4	6,416	.2	-.3
S.D.	5,712		5,781		5,839		5,914		
% State Total	35.1		35.1		35.0		35.1		
<b>Urban (N=4)</b>									
Subtotal	95,302		96,136		96,675		97,418		
Mean	23,826	-	24,034	.9	24,169	.6	24,354	.8	2.2
S.D.	13,109		13,435		13,667		13,958		
% State Total	13.7		13.8		13.9		14.0		
<b>Total All Districts</b>									
Subtotal	695,860		696,594		694,966		694,774		
Mean	1,614.5	-	1,616.2	-.1	1,612.4	-.5	1,612.0	-.6	-1.2
S.D.	3,476.8		3,508.5		3,528.6		3,562.3		
Percent	100.0	-	100.0	-	100.1	-	100.0	-	

TABLE 3

Equalization Aid Review Committee (EARC) Adjusted Assessed Evaluation Trends in Minnesota School Districts  
Categorized by Geographic/Enrollment Size Stratifications 1978 through 1988

District Geographic/ Enrollment Size Stratifications	1980-81		1981-82		1982-83		1983-84		1984-85		1985-86		% Change FY81-86
	EARC In Thousands	% Change											
<b>Rural Districts &lt;1 Section/Grade Enrollment &lt;200 (N=29)</b>													
Subtotal	250,114	—	331,590	32.6	290,242	-12.5	321,676	10.8	335,221	4.2	347,800	3.8	39.1
Mean	8,625	—	11,434	32.6	10,008	-12.5	11,092	10.8	11,559	4.2	11,993	3.8	39.1
S.D.	3,751	—	5,093	32.6	4,294	-12.5	4,680	10.8	4,840	4.2	4,949	3.8	39.1
% State Total	1.3	—	1.4	32.6	1.2	-12.5	1.2	10.8	1.1	4.2	1.1	3.8	39.1
<b>Rural Districts 1 Section/Grade Enrollment 200-399 (N=109)</b>													
Subtotal	1,302,763	—	1,711,982	31.4	1,496,515	-12.6	1,692,822	13.1	1,770,665	4.6	1,866,533	5.4	43.3
Mean	11,952	—	15,706	31.4	13,729	-12.6	15,530	13.1	16,245	4.6	17,124	5.4	43.3
S.D.	5,735	—	7,576	31.4	6,201	-12.6	7,080	13.1	7,271	4.6	7,759	5.4	43.3
% State Total	6.7	—	7.4	31.4	6.4	-12.6	6.2	13.1	5.9	4.6	5.8	5.4	43.3
<b>Rural Districts 2 Sections/Grade Enrollment 400-780 (N=110)</b>													
Subtotal	1,958,180	—	2,517,168	28.5	2,260,197	-10.2	2,548,506	12.8	2,709,551	6.3	2,810,735	3.7	43.5
Mean	17,802	—	22,883	28.5	20,547	-10.2	23,168	12.8	24,632	6.3	25,552	3.7	43.5
S.D.	8,356	—	10,900	28.5	8,975	-10.2	10,361	12.8	10,953	6.3	11,182	3.7	43.5
% State Total	10.1	—	10.9	28.5	9.6	-10.2	9.4	12.8	9.0	6.3	8.8	3.7	43.5
<b>Rural Districts 3 Sections/Grade Enrollment 781-1,170 (N=53)</b>													
Subtotal	1,330,236	—	1,644,284	23.6	1,528,612	-7.0	1,714,599	12.2	1,801,727	5.1	1,870,391	3.8	40.6
Mean	25,009	—	31,024	23.6	28,842	-7.0	32,351	12.2	33,995	5.1	35,290	3.8	40.6
S.D.	14,402	—	17,459	23.6	15,726	-7.0	16,349	12.2	16,447	5.1	16,354	3.8	40.6
% State Total	6.9	—	7.1	23.6	13.1	-7.0	6.3	12.2	6.0	5.1	5.8	3.8	40.6
<b>Large Towns Population 5,000-9,999 (N=67)</b>													
Subtotal	2,571,760	—	3,131,139	21.8	3,079,404	-1.7	3,554,906	15.4	3,811,883	7.2	3,976,855	4.3	54.6
Mean	38,384	—	46,733	21.8	45,961	-1.7	53,058	15.4	56,894	7.2	59,356	4.3	54.6
S.D.	18,921	—	22,797	21.8	24,029	-1.7	28,341	15.4	32,595	7.2	34,483	4.3	54.6
% State Total	13.3	—	13.6	21.8	13.1	-1.7	13.1	15.4	12.7	7.2	12.4	4.3	54.6
<b>Non Metro Cities Population &gt;10,000 (N=21)</b>													
Subtotal	2,189,578	—	2,547,059	16.3	2,552,423	.2	2,915,396	14.2	3,093,138	6.1	3,167,191	2.4	44.6
Mean	104,266	—	121,289	16.3	121,544	.2	138,828	14.2	147,292	6.1	150,819	2.4	44.6
S.D.	46,649	—	51,863	16.3	53,300	.2	61,563	14.2	68,829	6.1	69,535	2.4	44.6
% State Total	11.3	—	11.0	16.3	10.9	.2	10.7	14.2	10.3	6.1	9.9	2.4	44.6
<b>Suburban (N=38)</b>													
Subtotal	6,181,025	—	7,118,055	15.2	7,846,198	10.2	9,292,301	18.4	10,776,080	16.0	11,799,198	9.5	90.9
Mean	162,659	—	187,317	15.2	206,479	10.2	244,534	18.4	283,581	16.0	310,505	9.5	90.9
S.D.	120,936	—	135,596	15.2	152,066	10.2	180,741	18.4	208,170	16.0	228,740	9.5	90.9
% State Total	32.0	—	30.9	15.2	33.5	10.2	34.2	18.4	35.8	16.0	36.9	9.5	90.9
<b>Urban (N=4)</b>													
Subtotal	3,528,674	—	4,051,281	14.8	4,373,336	7.9	5,147,969	17.7	5,810,413	12.9	6,179,802	6.4	75.1
Mean	882,169	—	1,012,820	14.8	1,093,334	7.9	1,286,991	17.7	1,452,603	12.9	1,544,950	6.4	75.1
S.D.	642,943	—	725,636	14.8	806,141	7.9	975,147	17.7	1,145,259	12.9	1,275,400	6.4	75.1
% State Total	18.3	—	17.6	14.8	18.7	7.9	18.9	17.7	19.3	12.9	19.3	6.4	75.1
<b>Total All Districts</b>													
Subtotal	19,312,330	—	23,052,558	26.0	23,426,927	-6.8	27,188,175	13.7	30,108,678	6.6	32,018,505	4.7	49.1
Mean	44,808	—	53,486	26.0	54,355	-6.8	63,082	13.7	69,858	6.6	74,289	4.7	49.1
S.D.	119,288	—	132,897	26.0	145,733	-6.8	173,612	13.7	199,403	6.6	216,393	4.7	49.1
Percent	100.0	—	100.0	26.0	100.0	-6.8	100.0	13.7	100.0	6.6	100.0	4.7	49.1

interpretation of the EARC trends include 1) agricultural land values were characterized by large increases during the 1970's and a sharp drop in the early 1980's and 2) there is a two year lag between an EARC and its use in school aid formulas, *e.g.*, the 1983 EARC was used in the foundation aid formula for fiscal year 1985-86.

Information in Table 3 indicates that during the study period, mean district EARC increased in all stratifications, but the smallest increases were in the four stratifications of rural districts, all of which increased less than the state as a whole on a percent basis. Largest increases occurred in suburban and urban districts indicating more economic growth in communities served by districts in these categories.

District adjusted assessed valuation trends were also analyzed on an EARC per WADM basis. Trends on the EARC per WADM basis were similar to those presented in Table 4, except that they showed a somewhat more favorable condition for rural districts because the effect of the slower increase in average EARC tended to be offset by the decline in enrollment on which WADM is based.

#### *Unappropriated Fund Balance (UFB)*

Unappropriated fund balance (UFB) is a primary indicator of school district financial condition. It is fund equity which represents the cumulative effect of the relationship between revenue and expenditure in prior fiscal years. A positive fund balance is a resource that is available to buy goods and services for school operations. A negative fund balance generally means that more money was expended than was received. Table 4 reports the average fund balance (actual dollars) in each stratification. In interpreting the information in Table 4 it is important to be aware of a state fiscal crisis in 1981-82 and 1982-83 which resulted in a rescission of state aid appropriations. On the basis of actual dollars UFB in all districts statewide decreased by -5.2 percent during the study period. While rural districts with three sections per grade and districts serving large towns had the greatest decreases in UFB, the average UFB in stratifications containing the lowest enrollment districts actually increased. Trends for this indicator were also analyzed on the basis of UFB per WADM. Trends using UFB/WADM showed that the largest decreases in UFB still occurred in rural districts with three sections per grade and districts serving large towns. Percent increases in UFB/WADM in the stratifications of rural districts with less than one section per grade and districts with one section per grade were greater than UFB means reported in Table 4 because of the effect of declining enrollment. Little importance should be attributed to these trends for the smaller rural schools because the absolute values of the UFB represent small numbers of dollars.

#### *Delinquent Taxes Receivable*

Delinquent taxes receivable has selected as an indicator of financial stress associated with residents' wages

and profits relative to real estate values and property taxation. Information about delinquent taxes receivable in each stratification and the state as a whole is reported in Table 5 (actual dollars). Table 5 indicates that from 1980-81 through 1985-86 the total delinquent taxes receivable in governmental funds in all districts rose from \$24,150,454 to \$47,600,605 in actual dollars (+143.9 percent). The greatest average increase was in the stratification containing rural districts with two sections per grade followed by the stratifications of rural districts with less than one section per grade and districts that serve non-metropolitan cities. Districts serving suburban communities were least affected by increasing delinquent taxes.

Delinquent tax trends were also analyzed on the basis of delinquent taxes per WADM. The patterns of delinquent taxes per WADM were similar to those in Table 5. Using the per WADM basis the largest increases were still in rural districts with two sections per grade followed by non-metro cities, rural districts with less than one section per grade and rural districts with one section per grade. The least change in delinquent taxes receivable per WADM occurred in the suburban district stratification. Clearly, the increase in delinquent taxes receivable was more pervasive in rural areas.

#### *Adjusted Maintenance Cost per Weighted Average Daily Membership (AMC/WADM)*

The mean adjusted maintenance costs per WADM (actual dollars) for districts in each stratification are reported in Table 6. As expected, the AMC/WADM increased in all stratifications. The pattern in AMC/WADM is remarkably opposite from the pattern for declining enrollment in Table 1. The largest percent increase in unit cost was in the stratification of districts with less than one section per grade which was also the district stratification with the largest average decrease in enrollment on a percent basis. The second largest AMC increase was in districts with one section per grade which were also second in enrollment decline. Suburban districts had the third largest increase in AMC/WADM and were fourth in enrollment decline. These findings highlight the importance of enrollment denominators in calculating unit operating costs as measures of efficiency. The lowest increase in AMC/WADM occurred in rural districts with three sections per grade which were fifth in enrollment decline.

## CONCLUSIONS AND IMPLICATIONS

Conclusions based on experience with the study design and results presented are as follows:

- 1) The comparative district stratification/trend analysis is a useful applied research method for comparing changes in selected stratifications of school districts within a state K-12 educational system. Strengths of the method include a) emphasis on trend direction over point-in-time comparison and b) flexibility in



that length of trend lines, nature/number of stratifications and variables included can be adapted to research purposes.

- 2) Compared to other geographic/enrollment size categories of Minnesota school districts, rural districts with fewer than three sections per grade experienced greater adverse effects as the result of community demographic and economic change. Results of the study indicated that these low enrollment districts a) experienced the largest percent enrollment decline, b) face a percent projected enrollment decline greater than the state as a whole through 1990-91, c) have had the smallest increases in adjusted assessed valuation, d) have had the largest percent increases in delinquent taxes receivable in total and on a per pupil unit basis and e) declining enrollment and rising costs have combined to cause their operating expenditures per pupil to have

larger percent increases than districts in other geographic/enrollment size categories.

The findings have implications for further research and for state educational policy. Further applied research using this method should 1) explore the use of indices to control effects of inflation on parameter values and 2) include additional variables such as number of provisional licenses, elective course offerings, age of plant facilities, etc. Educational policy implications of the study relate to restructuring of school organizations. Results of this study suggest that three sections per grade might be used as a viable minimum size for secondary schools (and districts) in low population density areas. In communities where schools or districts with three sections per grade are not practical for transportation or other reasons, necessary small schools should be planned, alternative delivery systems used and sparsity revenue provided to assure access to adequate educational opportunities.

TABLE 5A

Delinquent Taxes Receivable Trends in Minnesota School Districts  
Categorized by Geographic/Enrollment Size Stratifications 1980-81 through 1985-86

District Geographic/ Enrollment Size Stratifications	1980-81		1981-82		1982-83		1983-84		1984-85		1985-86		% Change FY81-86
	Del. Taxes/ Rec.	% Change											
Rural Districts <1 Section/Grade Enrollment <200 (N=29)													
Subtotal	146,385		178,933		217,841		208,361		259,364		418,606		
Mean	5,048	-	6,170	22.2	7,512	21.8	7,185	- 4.4	8,944	24.5	14,435	61.4	186.0
S.D.	6,425		7,705		10,859		10,317		9,965		16,395		
% State Total	.6		.6		.6		.5		.6		.9		
Rural Districts 1 Section/Grade Enrollment 200-399 (N=109)													
Subtotal	1,067,234		1,033,839		1,380,134		1,683,360		2,063,101		2,717,006		
Mean	9,791	-	9,485	- 3.1	12,662	33.5	15,444	22.0	18,928	22.6	24,927	31.7	154.6
S.D.	11,828		12,458		13,217		17,186		19,041		20,125		
% State Total	4.4		3.6		3.7		4.4		4.5		5.7		
Rural Districts 2 Sections/Grade Enrollment 400-780 (N=110)													
Subtotal	1,742,885		1,825,521		2,438,531		3,018,772		3,873,666		5,052,492		
Mean	15,844	-	16,596	4.7	22,168	33.6	27,443	23.8	35,215	28.3	45,932	30.4	189.9
S.D.	20,774		21,802		26,910		29,171		34,243		35,907		
% State Total	7.2		6.3		6.5		7.8		8.5		10.6		
Rural Districts 3 Sections/Grade Enrollment 781-1,170 (N=53)													
Subtotal	1,310,349		1,436,234		1,833,201		1,931,866		2,389,391		2,962,826		
Mean	24,724	-	27,099	9.6	34,589	27.6	36,450	5.4	45,083	23.7	55,902	24.0	126.1
S.D.	24,792		25,513		27,552		31,064		35,586		33,421		
% State Total	5.4		5.0		4.9		5.0		5.3		6.2		



TABLE 6A

Adjusted Maintenance Cost (AMC) per Weighted Pupil Unit in Average Daily Membership (WADM)  
In Minnesota School Districts Categorized by Geographic/Enrollment Size Stratifications 1980-81 through 1985-86

District Geographic/ Enrollment Size Stratifications	1980-81		1981-82		1982-83		1983-84		1984-85		1985-86		% Change FY81-FY86
	AMC/ WADM	% Change											
Rural Districts <1 Section/Grade Enrollment <200 (N=29)	1,965	—	2,354	19.8	2,481	5.4	2,691	8.5	2,895	7.6	3,139	8.4	59.7
Rural Districts 1 Section/Grade Enrollment 200-399 (N=109)	1,685	—	1,950	15.7	2,064	5.8	2,248	8.9	2,430	8.1	2,620	7.8	55.5
Rural Districts 2 Sections/Grade Enrollment 400-780 (N=110)	1,598	—	1,814	13.5	1,911	5.3	2,089	9.3	2,273	8.8	2,437	7.2	52.5
Rural Districts 3 Sections/Grade Enrollment 781-1,170 (N=53)	1,689	—	1,786	5.7	1,883	5.4	2,027	7.6	2,189	8.0	2,361	7.9	39.8
Large Towns Population 5,000-9,999 (N=67)	1,593	—	1,788	12.2	1,893	5.9	2,035	7.5	2,205	8.4	2,400	8.8	50.7
Non Metro Cities Population >10,000 (N=21)	1,745	—	1,919	10.0	2,018	5.2	2,174	7.7	2,382	9.6	2,609	9.5	49.5
Suburban (N=38)	1,758	—	1,956	11.3	2,071	5.9	2,253	8.8	2,470	9.6	2,696	9.1	53.4
Urban (N=4)	2,106	—	2,211	5.0	2,352	6.4	2,567	9.1	2,754	7.3	2,950	7.1	40.1
All Districts	1,681	—	1,899	13.0	2,005	5.6	2,177	8.6	2,361	8.5	2,551	8.0	51.8

**TABLE 6B**

Adjusted Maintenance Cost (AMC) per Weighted Pupil Unit in Average Daily Membership (WADM)  
In Minnesota School District Categorized by Geographic/Enrollment Size Stratifications 1980-81 through 1985-86

District Geographic/ Enrollment Size Stratifications	1980-81		1981-82		1982-83		1983-84		1984-85		1985-86		% Change FY81-86
	Del. Taxes/ Rec.	% Change											
<b>Large Towns</b>													
Population 5,000-9,999 (N=67)													
Subtotal	4,052,370		4,465,259		5,897,229		6,402,934		7,475,352		7,859,189		
Mean	60,483	-	66,646	10.2	88,018	32.1	95,566	8.6	111,572	16.7	117,301	5.1	93.9
S.D.	48,606		54,041		70,736		88,219		94,307		89,650		
% State Total	16.8		15.5		15.7		16.6		16.5		16.5		
<b>Non Metro Cities</b>													
Population >10,000 (N=21)													
Subtotal	2,088,580		2,568,808		3,473,483		3,269,133		4,101,824		5,481,901		
Mean	99,456	-	122,324	23.0	165,404	35.2	155,673	- 5.9	195,325	25.5	261,043	33.6	162.5
S.D.	81,634		108,345		134,988		120,085		140,612		196,737		
% State Total	8.6		8.9		9.3		8.5		9.0		11.5		
<b>Suburban (N=38)</b>													
Subtotal	10,206,862		12,548,154		17,455,733		16,847,244		18,406,529		15,713,404		
Mean	268,602	-	330,215	22.9	459,361	39.1	443,349	- 3.5	484,382	9.3	413,511	-14.6	53.9
S.D.	235,059		331,815		451,864		288,938		304,236		260,176		
% State Total	42.3		43.6		46.6		43.6		40.5		33.0		
<b>Urban (N=4)</b>													
Subtotal	3,535,789		4,746,482		4,754,327		5,313,207		6,847,897		7,395,181		
Mean	883,947	-	1,186,621	34.2	1,188,582	.2	1,328,302	11.8	1,711,974	28.9	1,848,795	8.0	109.2
S.D.	497,818		763,073		1,024,339		1,299,734		2,045,983		2,375,372		
% State Total	14.6		16.5		12.7		13.7		15.1		15.5		
<b>Total All Districts</b>													
Subtotal	24,150,454		28,803,230		37,450,479		38,674,877		45,417,124		47,600,605		
Mean	56,033.5	-	66,828.8	8.1	86,892.1	32.1	89,732.9	12.8	105,376.2	22.4	110,442.2	24.1	143.9
S.D.	138,178.5		186,117.6		232,194.7		223,579.1		285,196.5		300,090.3		
Percent	100.0		100.0		100.0		100.0		100.0		100.0		

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