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TO: Members
Special Committee on Review of State School Aid Formula

FROM: Layla Merrifield, Fiscal Analyst

SUBJECT: Options for Aid Based on District Sparsity

The following memorandum provides information relating to options for state aid to school districts with large areas but low enrollment.

Current Law

Under current law, the state's school aid system generally does not target aid to school districts with large area and low enrollment. These districts may have higher costs per pupil due to lengthy bus routes, and their physical plant and administrative costs may be allocated across fewer pupils. The one aid appropriation that does address this issue is limited so that it applies to one school district (Laona) and has annual funding of $125,000. The criteria for this aid are: (a) the school district had an enrollment of fewer than 500 pupils in the previous school year; (b) the school district is at least 200 square miles in area; and (c) at least 80% of the real property in the school district is exempt from property taxation, taxed as forest cropland, owned or held in trust by a federally-recognized American Indian tribe, or owned by the federal government.

One option under current law to address a school district with low enrollment is school district consolidation. However, for a school district with a large area, consolidation may be infeasible if it would result in bus routes of an unacceptable length.

A second option under current law is to seek voter approval for an increase in revenue limits to fund the higher costs such a school district may incur. However, in many districts it may be difficult to pass a referendum to increase revenue limits, and the school district may have to make other programmatic reductions to fund costs that are effectively beyond its control.

Department of Public Instruction Budget Request

As part of its 2007-09 budget request, the Department of Public Instruction (DPI) proposes a new categorical program to provide sparsity aid for larger area, lower enrollment school districts, with funding of $26,462,400 in 2008-09. DPI proposes the following eligibility criteria: (a) enrollment of 2,000 or less; (b) less than 15 pupils per square mile; and (c) free and reduced-price lunch eligibility of at least 20% of district enrollment. Qualifying districts under DPI's proposal would receive $150 per pupil, with payments increasing to $300 per pupil for districts with at least 40% free and reduced-price lunch eligibility. DPI included a similar proposal in its 2005-07 budget request.

Criteria for Eligibility for Sparsity Aid

Several factors could be used to establish eligibility criteria for a sparsity aid proposal, either alone or in combination. One factor could be to limit the proposal to districts above a certain area, such as 100 square miles. The rationale for this type of restriction is that consolidation may not be a realistic option for districts above a certain area.

A second factor could be to limit the proposal to districts with lower enrollment, such as 1,000 pupils. A rationale for this type of threshold is that in a district with low enrollment, fixed costs are spread across fewer pupils, and class sizes in required courses may be so small as to further increase per pupil costs. DPI uses this approach in its proposal, with 2,000 pupils as the limit, which excludes approximately 25% of all school districts.

A third factor could be to combine the first two factors into a calculation of pupils per square mile. DPI also uses this approach in its budget proposal, which would provide aid to districts with lesser areas, if their enrollment is low. A rationale for this factor is that a district with a larger area may achieve lower transportation costs by using multiple school buildings, if it has sufficient density of pupils. Conversely, a district with a smaller area may have inefficiencies if it has a low density of pupils.

A fourth factor could be to consider the percentage of pupils eligible for free and reduced-price lunch. DPI uses this approach in its budget proposal, which would establish a threshold of 20% to qualify for any aid. A rationale for this factor is that a district with a concentration of poverty may need additional resources to attain comparable educational achievement. In addition, taxpayers with lesser incomes may be less likely to support a referendum to increase revenue limits. However, free and reduced-price lunch percentages do not directly relate to the issues usually associated with large area, small enrollment school districts, but rather involve another set of issues. If a concentration of poverty results in the need for additional resources, it does so in all types of school districts, not just those with lower enrollments per square mile.

Options for Sparsity Categorical Aid

To provide a range of options for structuring sparsity aid, two examples are presented in addition to the DPI budget request described above. First, an option to provide $300 per pupil to school districts with less than 1,000 pupils and an area over 200 square miles would cost an estimated $6.5 million annually. Second, an option to provide $300 per pupil to school districts with less than 600 pupils and a density of less than 15 pupils per square mile would cost an estimated $12.6 million annually.

Summary Data for Possible Criteria

In order to assist consideration of options for criteria for a sparsity aid program, the following tables show summary data comparing school district pupil density, geographical area, poverty rates, and enrollment sizes. For the purposes of this memorandum, pupil density has been calculated from each district's total enrollment in September, 2005, divided by its total geographical area. Areas are shown in square miles, and are taken from U.S. Census Bureau data. Poverty rates are based on pupil eligibility for free and reduced-price lunch, collected by DPI for the federal educational rate program in October, 2005.

Table 1 compares the number of pupils per square mile versus the total area of each district. It provides a count of districts falling into each of several categories of sparsity and overall geographical size. Columns are totaled at the bottom, and rows are totaled to the right.

TABLE 1

District Counts by Pupils per Square Mile

Pupils Per Square Mile	Areas Less Than 100 Square Miles	100 to 200 Square Miles	Areas Greater Than 200 Square Miles	Total Districts
0 to 5	25	48	49	122
5 to 10	33	59	14	106
10 to 15	30	14	6	50
15 to 25	21	16	3	40
25 to 50	27	7	1	35
50 to 100	27	5	0	32
100 and up	40	1	0	41
Totals	203	150	73	426

Table 2 shows the range of poverty rates occurring in districts of various geographical area sizes, for all school districts in the state. Columns are totaled at the bottom, and rows are totaled on the right.

TABLE 2

District Counts by Areas and Poverty Rates

District Areas (in Square Miles)	Poverty Rates 0-20%	20%-30%	30%-40%	Over 40%	Total Districts
0-25	40	9	6	2	57
25-50	29	4	2	1	36
50-100	63	25	15	7	110
100-150	40	19	14	9	82
150-200	14	25	16	13	68
200-400	4	15	13	17	49
over 400	0	8	5	11	24
Total	190	105	71	60	426

Table 3 also shows poverty rates, but according to pupil density. However, this table includes only the 227 school districts with geographical areas of 100 square miles and larger.

TABLE 3

Poverty Rates for Districts with Areas of at Least 100 Square Miles

Pupils Per Square Mile	Poverty Rates 0 to 20%	20 to 30%	30 to 40%	Over 40%
0 to 5	4	26	28	39
5 to 10	24	24	16	9
10 to 15	11	6	2	1
15 to 25	12	7	0	0
25 to 50	6	1	1	0
50 to 100	1	3	1	0
over 100	0	0	0	1

Finally, Table 4 shows pupils per square mile according to school district enrollment sizes, for all school districts in the state.

TABLE 4

District Counts by Pupils per Square Mile and Enrollment

Pupils Per Square Mile	Enrollment						Total Districts
	0-250	250-500	500-1000	1000-1500	1500-2000	2000+	
0 to 5	12	44	54	8	4	0	122
5 to 10	7	14	42	27	7	9	106
10 to 15	3	5	11	16	7	8	50
15 to 25	1	3	6	5	9	16	40
25 to 50	1	7	4	3	4	16	35
50 to 100	0	3	2	3	2	22	32
over 100	0	1	4	3	2	31	41
Total	24	77	123	65	35	102	426

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