

Considerations and Recommendations Regarding SSG Metricsⁱ

“The distribution of a resource as precious as educational opportunity may not have as its determining force the mere fortuity of a child’s residence. It requires no particular constitutional expertise to recognize the capriciousness of such a system.”

- Vermont Supreme Court

*“The legislation is designed to encourage and support local decisions and actions that:
(1) provide substantial equity in the quality and variety of educational opportunities statewide;*

- Goal 1. Act 46

Guiding Principle - Equity – Some contend that equity should not be a part of the metrics recommendations. On the contrary, if we take action that is harmful to equity we have a potential conflict with the Constitution, Act 60, Act 46 and our own primary goal.

As shown below, the 43 small school grant districts (which are not a proposed part of a unified union school district) have lower income and higher poverty. Thirty-seven of these 43 towns are below the state average income. The total group of SSG towns approaches the state spending average with the SSG. But they do so at a tax rate 13 cents above the state average. This would go to 23 cents above the average without the SSG.

	SSG Towns	State	Difference	%
Income (AGI)	\$29,825	\$34,565	-\$4,740	-13.7%
Poverty (FRL)	49.9%	44.1%	5.8%	
Per pupil spending	\$15,343	\$15,368	-\$25	
Same spending w/o SSG	\$16,049	\$15,368	\$681	4.4%
Equalized Homestead tax rate	\$1.63	\$1.50	\$0.13	8.7%
Equalized Homestead w/o SSG	\$1.73	\$1.50	\$0.23	15.3%

Sources: FY2018 AOE, JFO

Considerations in determining metrics and weights – As can be seen, this is inequitable on its face. While state aid formulas are under the purview of the legislature, any recommendation of the SBE should not knowingly exacerbate the inequities. In fact, the recommendations should reduce inequities by giving additional support to the low spenders who are paying high tax rates.

Support vs. Sanctions – In setting weights, should they be awarded for “excellence” or for support for the needy? The entire purpose of state aid is to provide equal and equitable opportunities to all regardless of circumstances. That’s protected in the common benefits clause of the Constitutionⁱⁱ and reified in Brigham. While punitive approaches have been recommended, the research literature shows they are not effective.ⁱⁱⁱ

Other States - Two-thirds of the states have small school or geographic isolation payments (32 of 50). ECS says 28. The funds are not a reward for being small, they are necessary for equity (Verstegen, AEFPP, 2014).

Tiered systems - Funding cliffs are bad public policy. We have Vermont history to enlighten us on this point. Thus, 3-4 tiers would be a more stable and acceptable approach. Tiers or sliding scales are in use in a number of states (see Kansas, New Mexico and Wyoming).

Considerations in using test scores - Nationally, 70.6% of the test score variance is attributable to outside the school factors, In other words, we are measuring poverty more than school quality (Riordan)

The system must not discriminate against schools that happen to have a more needy population. We do not know whether the weights we have mooted are appropriate. Thus, any decision is subjective and must be conservative to avoid a type II error (i.e. - wrongly denying a SSG).

The proficiency level was intentionally set at a high failure rate. Although Vermont ties for 8th *in the world* (AIR), only about 35% “pass” in math and about 40% in ELA^{iv}. Further, the tests have no proven predictive validity (Mathis, Washington Post). Point assignments must take this into account.

Averaging across subject matters and grade levels is dubious and does not compensate for differences in cut scores, and questionable vertical equating (across grade levels). This also argues for being conservative.

Considerations in student-teacher ratios. This is a curvilinear relationship that should be adjusted so that classes are neither too large nor too small. There’s a solid literature which shows the bend in the curve at around 12-15. Furthermore, the EQS standards cap class size at 20 for K-3. For illustration,

Level 0 – less than 6 or more than 23

Level 1 – 7 and 8 and 21 or 22

Level 2 – 9-11 or 21

Level 3 – 12-20 students

Exemptions: gym, sports, band library, special services

There is no parallel literature for paras. The Picus report does away with aides entirely but this is not realistic.

Gain Scores – ESSA does not require gain scores although virtually every state uses them due to various reasons. Pure and simple, with test scores so influenced by outside factors, they don’t form a reliable metric (Rothstein). Perhaps useful on a school level, a rolling three year average assures two-thirds of the students are repeaters.

Recommendations –

- Any town which meets the geographic isolation and/or a state board approved section 9 application should receive the SSG.
- If the town’s tax effort is above the state average and spending is lower than the state average, they should receive the SSG. (Efficiency)

- Teacher ratios should consider the curvilinear relationship similar to the above but should not be used for SSG eligibility in the first year. The reason being that the weighting study will not be completed in time.
- Assessment scores should be reported and adjusted for AGI per exemption using a simple regression equation. Those with greater gains than expected for their economic situation should receive the SSG. Those whose performance is lower than what would be expected given the socio-economic circumstances would have to show cause to be eligible for a SSG.
- The system should not be implemented without proper modeling. We do not know how it will behave. If quartile splits are used, this will artificially depress scores thus requiring a low threshold. If we are unable to model the system accurately, we should recommend that the state use the previous system until a sound new system is validated.
- The SSG should be examined as an integral part of the weighting study. If this does not occur, the SSG should be reinstated as a matter of sound and equitable educational finance policy.
- Since we will not have the EQS snapshots until late fall and the weighting study is not complete, SBE recommendations should be for one year only.
- A tiered system should be used in the future. The distributions are continuous and do not lend themselves to dichotomous yes/no answers.

ⁱ The views expressed here are those of Wm Mathis and do not necessarily reflect the views of any other person or group of people.

ⁱⁱ The Common Benefits Clause of the Vermont Constitution provides "[t]hat government is, or ought to be, instituted for the common benefit, protection, and security of the people, nation, or community, and not for the particular emolument or advantage of any single person, family or set of persons, who are a part only of that community; and that the community hath an indubitable, unalienable, and indefeasible right, to reform or alter government, in such a manner as shall be, by that community, judged most conducive to the public weal." *Chapter I, Article 7th of the Vermont Constitution*

ⁱⁱⁱ See Sean Reardon, Mintrop and Sunderman, Rothstein, Berliner, etc. NCLB failed to close the achievement gap,

^{iv} Smarter Balanced States Approve Achievement Level Recommendations, November 2014