

USBE Finance Committee

Utah Education Funding Study

Utah State Board of Education
06/02/2023



Goals of the Study:

- Goal #1: Support the USBE to understand and review the technical methods used in the Utah Education Funding Study's cost function analysis. Census Definition was used.
- Goal #2: Conduct an additional analysis of the Utah Education Funding Study's findings, including exploring approaches to applying the cost function analysis results with respect to district size, school size, and school remoteness to inform state funding policy.



Findings:

- Finding 1: School remoteness in Utah, as measured in this analysis, follows a few geographic patterns, with the most remote schools located in the southeast region of the state.
- Finding 2: A new funding adjustment incorporating school remoteness as an additional cost factor represents a valid alternative to the recommendation in the original study.
- Finding 3: The new proposed adjustment would increase funding weights for most districts compared to the recommendation in the original study.

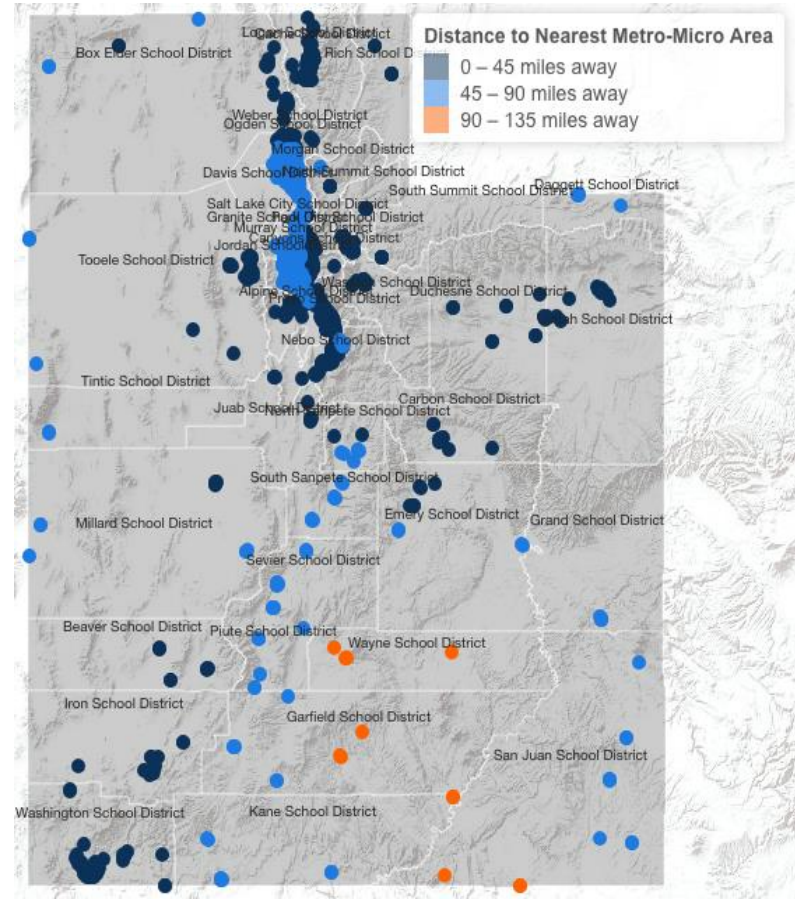
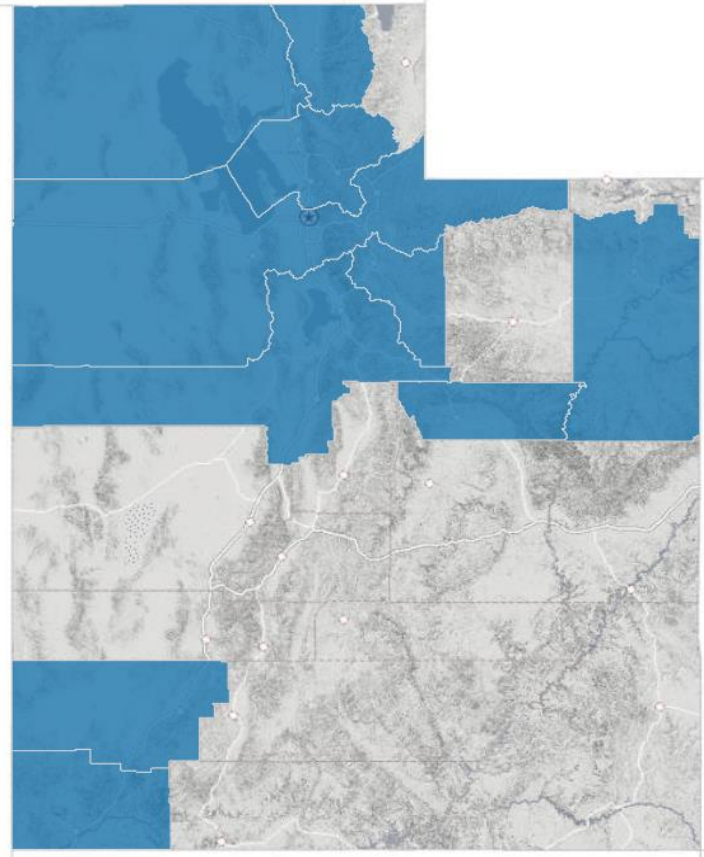
Findings:

- Finding 4: Based upon the FY 2021 /22 basic funding amount, the new proposed adjustment would provide about \$5.5 million more funding than the recommendation in the original study.



Findings: Major Points

Metropolitan/Micropolitan Areas in Utah and Distance to Nearest Metropolitan/Micropolitan Area



Findings: Major Points

- As previously discussed, the geographic center of the nearest metro/micropolitan area was used measure of school remoteness:
 - The report does alternative options to use to measure school remoteness:
 - Consideration of remoteness within a district.
 - Typical driving time.
 - Distance from nearest school serving the same grade level within a district.

Findings: Major Points

- Incorporation of Remoteness into the adjustment:
 - The report extended the original analysis:
 - Findings in the original study with respect to school remoteness were combined with the findings with respect to district size, to construct new district funding weights
 - New weights represent additional funding to address additional costs stemming from district size and the remoteness of the schools within a district's boundaries.

Findings: Major Points

- Re-examining the 25th Percentile:
 - Considered the original study's recommendation to reduce the cost function analysis funding weights as districts grow in size.
 - Cost function analysis results imply at least some additional per-pupil funding for even relatively large districts with few remote schools.
 - Budget constraints and practicality call for the limited funding available for this purpose to be targeted to the smallest districts with the most remote schools

Findings: Major Points

- Re-examining the 25th Percentile:
 - The 25th percentile of district enrollment statewide—1,694 in FY 2018/19—was chosen as the threshold after which weights would be reduced because it is a visually clear point at which the reduction in per-pupil costs for each additional student predicted by the cost function analysis begins to level off.
 - This signified to the study team the point at which the need for additional funding becomes less severe because per-student cost is not as responsive to changes in enrollment at this point.

Findings: Major Points

- Re-examining the 25th Percentile:
 - The 25th percentile of district enrollment statewide—1,694 in FY 2018/19—was chosen as the threshold after which weights would be reduced because it is a visually clear point at which the reduction in per-pupil costs for each additional student predicted by the cost function analysis begins to level off.
 - 10 times the 25th percentile was chosen as the threshold at which districts are sufficiently large to be beyond the scope and purpose of the additional funding.

Findings: Major Points

- Re-examining the 25th Percentile:
 - Considered the rate at which additional costs are predicted to decline as district enrollment increases at different enrollments to determine if the 25th percentile was a reasonable threshold.
 - Additional costs are highest for the smallest districts, and each additional student reduces these additional costs.
 - At small sizes the additional costs go down significantly as district enrollment grows.
- Study team considered alternatives but concluded that the original study recommendation is reasonable.

Findings: Major Points

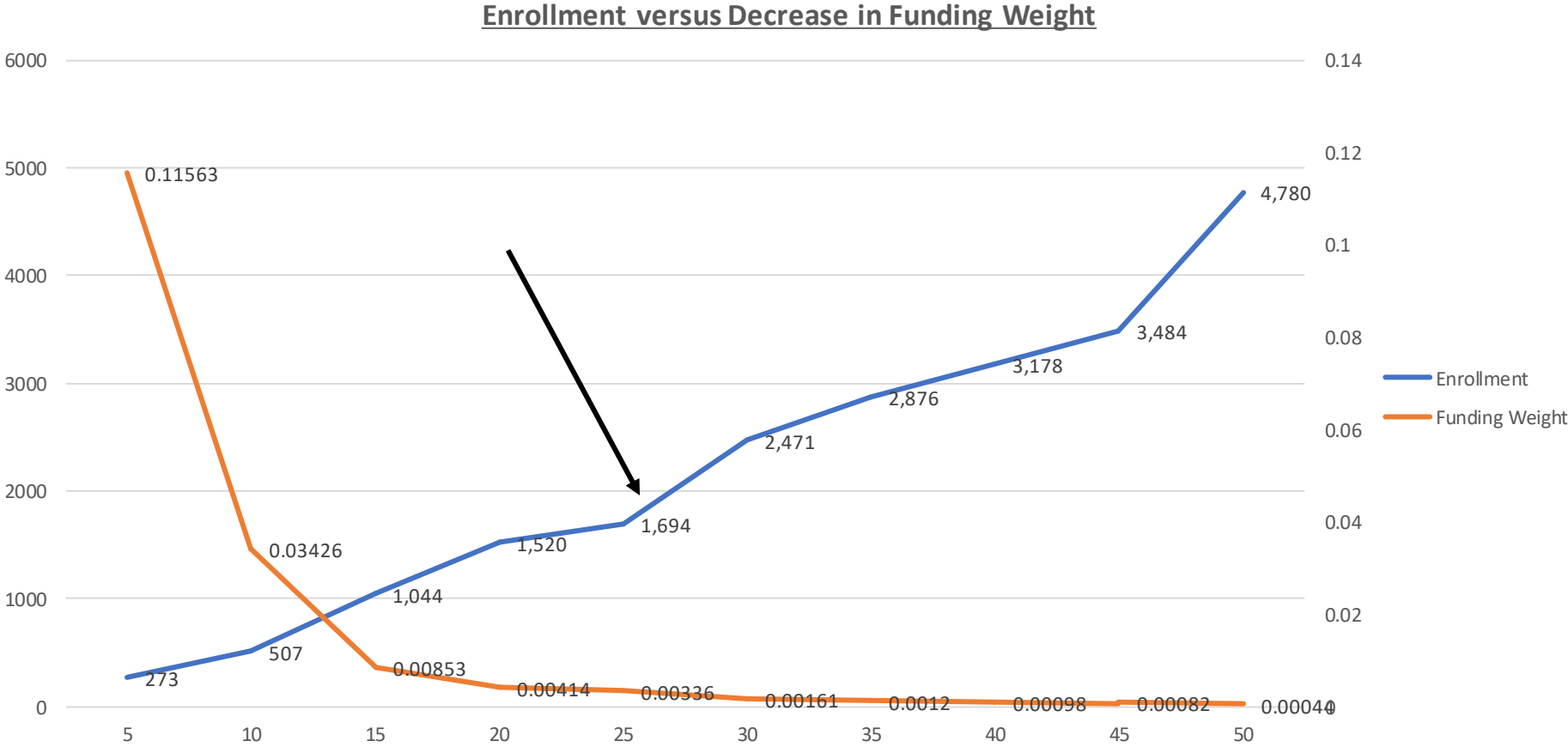
- Re-examining the 25th Percentile:

Percentile	FY 2018/19 enrollment	Decrease in funding weights for every 20 additional students
5th Percentile	273	0.11563
10th Percentile	507	0.03426
15th Percentile	1,044	0.00853
20th Percentile	1,520	0.00414
25th Percentile	1,694	0.00336
30th Percentile	2,471	0.00161
35th Percentile	2,876	0.00120
40th Percentile	3,178	0.00098
45th Percentile	3,484	0.00082
50th Percentile	4,780	0.00044



Findings: Major Points

- Re-examining the 25th Percentile:



Findings: Major Points

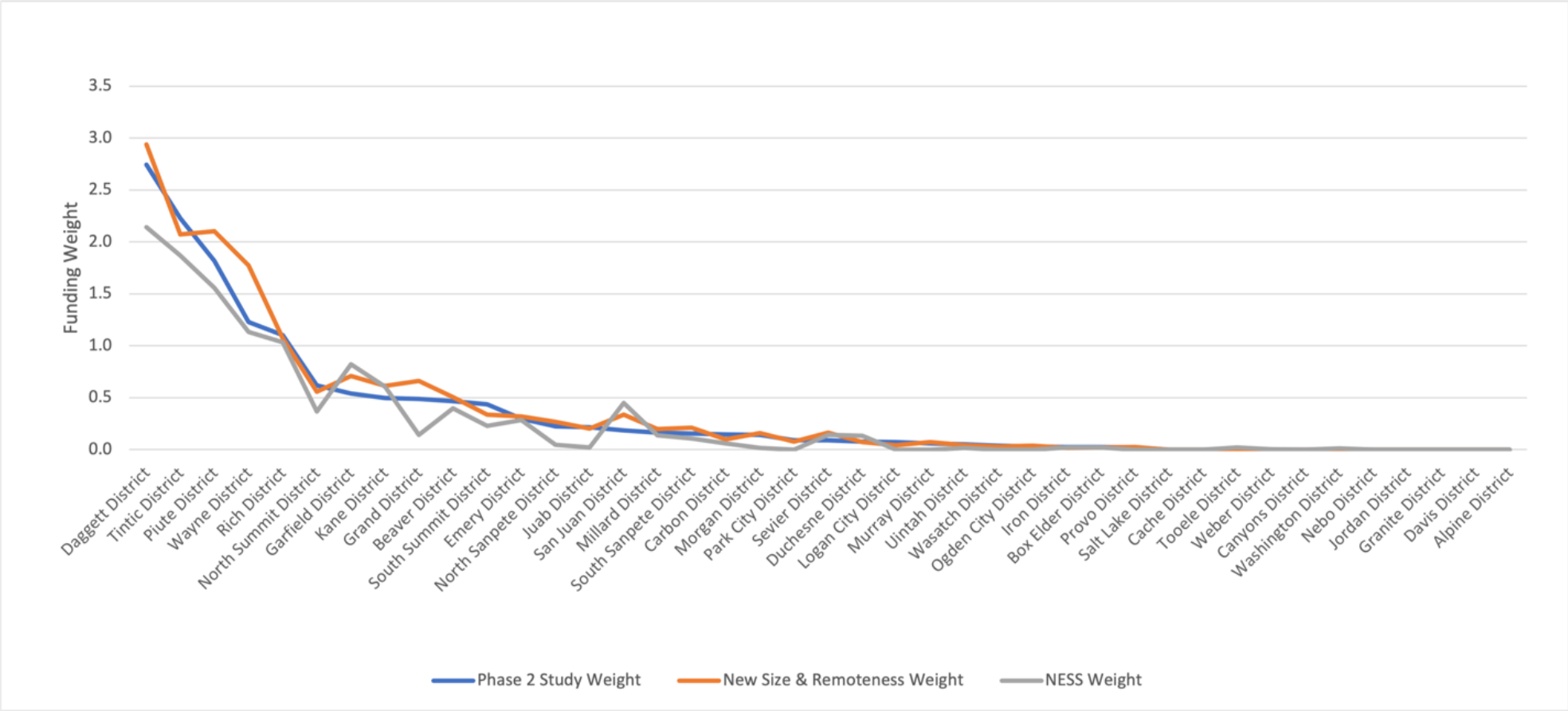
- Re-examining the 25th Percentile:
 - Consider that given the large size of these districts, any additional funding per pupil will translate to a relatively large amount of total funding.
 - In FY 2018/19, a weight of 0.015 for a district of around 17,000 students was only about \$51 per pupil but well over \$800,000 in total funds.
 - Small weight of 0.0004 translates into close to \$1 million in total funds for the largest districts in the state.

Findings: Major Points

- Re-examining the 25th Percentile:
 - Meeting the state's goal for this type of program—to provide additional support for small districts with remote schools—is at odds with providing this level of funding to the largest districts in the state.
 - Changes in either of these thresholds would likely have meaningful implications on the level of funding to districts and overall.
 - Policymakers should consider modeling the impact of different thresholds and consider what other criteria may be relevant when determining which threshold is the most effective and equitable.

Findings: Major Points

- Re-examining the 25th Percentile:



Findings: Major Points

- Based upon the FY 2021 /22 basic funding amount, the new proposed adjustment would provide about \$5.5 million more funding than the recommendation in the original study. (Finding#4)
 - The new weights that incorporate school remoteness would require the largest amount of overall statewide funding, and about \$5.5 million more than the weights recommended in the original study.
 - Both would provide more funding than the current NESS program in FY 2021 /22.

Findings: Major Points

- Based upon the FY 2021 /22 basic funding amount, the new proposed adjustment would provide about \$5.5 million more funding than the recommendation in the original study. (Finding#4)

Funding Weight	Statewide Total Funding Implied by Weight (in millions)
NESS	\$44.00
Original Phase 2 Study Weights	\$55.47
Proposed School Remoteness Weights	\$60.99



Findings: Major Points

- Policy Implications/Additional Considerations:
 - Adding additional cost factors makes the funding formula more complex.
 - School remoteness should be prioritized over school size when account for the effect of scale on costs.
 - Inclusion of school remoteness in the proposed alternate weight is a stronger approach to accounting for how school context within a district affects the district's ability to take advantage of economies of scale overall.
 - Isolation of a school within a district impacts the extent to which that district is able to adjust the allocation of resources across schools to achieve greater efficiency.



Findings: Major Points

- Additional Areas of Investigation:
 - Alternative to measuring distance “as the crow flies” that could capture the difficulty or time associated with traveling to an isolated location, such as typical driving time
 - Explore the use of measures more applicable to each district’s context, such as remoteness within a district rather than relative to a metropolitan or micropolitan area.

