

STUDENT NEED WEIGHTS IN SCHOOL AID FORMULAS

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Notes on Weights

- Intended, in combination with all other parts of formula, to provide children “equal educational opportunity” to achieve specific outcome goals
- Weights don’t stand alone
 - Weights must be considered in the context of their formula
 - How they are integrated with other weights and cost factors (multiplicative vs. additive, etc.)
 - The base to which they are applied

Notes on Weights

- Nominal Weights
 - The “weight” or multiplier itself, without context
- Effective Weights
 - The effect of the weight on formula funding, from the school or district receiving the minimum to the maximum of that weight

Cost Studies & Weights

- Input oriented studies
 - PJ panels or consultants...
 - Recommend (hypothesize) programs and services which may help to improve outcomes and close gaps for specific student populations
 - Often based on well researched programs and interventions
 - But not necessarily tied to the specific outcomes in question, or specific (as measured) student population
- Outcome oriented studies
 - Use data on the context under investigation to identify the relationship between population variation, outcome variation, and resource variation to generate context specific models and predictions

2008 National Research Council Findings

Table 2: The Implicit Adjustments for Student Poverty

State	Study Type	Implicit Poverty Adjustment	Baseline Cost Estimate
Arkansas	Evidence Based	0.225**	\$6,115
Kansas	Cost Function	0.965	3,982
Kansas	Professional Judgment	0.681	6,172
Minnesota	Cost Function	1.679	4,932
Missouri	Cost Function	0.992	4,013
Missouri	Cost Function	0.802	4,900
New York	Cost Function	1.346	5,511
New York	Professional Judgment	0.915	7,196
Pennsylvania	Professional Judgment	0.616	6,436
Rhode Island	Cost Function	*0.672	5,725
Texas	Cost Function	*0.395	4,030
Texas	Cost Function	1.273	3,147
Washington	Professional Judgment	0.581	6,841

Note: The implicit poverty adjustments are coefficient estimates from a regression of the district-level cost of an adequate education (in logs) on the log of enrollment, the log of enrollment squared, the share of students in poverty and the NCES Comparable Wage Index. In all cases, the coefficient estimates are significantly different from zero at the 1-percent level. Complete regression tables available upon request.

*single stage cost models tended to underestimate student need (both authors have changed their methods in more recent studies)

**Odden/Picus "evidence based" model out of line with any/all other methods & models

Baker, B. D., Taylor, L. L., & Vedlitz, A. (2008). Adequacy estimates and the implications of common standards for the cost of instruction. *National Research Council*, 9(2), 24-38.

Empirical Research (NY)

Table 6
Estimated pupil weights

	Simple average	Enrollment-weighted average	Directly estimated
<i>Using Census poverty and LEP</i>			
Without special education			
Child poverty	1.415	1.491	1.667
LEP	1.007	1.030	1.308
With special education			
Child poverty	1.224	1.281	1.592
LEP	1.009	1.033	1.424
Special education	2.049	2.081	2.644
<i>Using share of students signed up for subsidized lunch</i>			
Without special education			
K6 free and reduced price lunch share (2-year average)	1.108	1.294	1.690
With special education			
K6 free and reduced price lunch share (2-year average)	1.361	1.552	2.145
Special education	1.853	1.880	3.016

Duncombe, W., & Yinger, J. (2005). How much more does a disadvantaged student cost?. *Economics of Education Review*, 24(5), 513-532.

Vermont Effective "Poverty" Weight

64 - Total Funding PP (If distributed according to weights)
Districts Enrolling >500 Pupils

