

# State Aid to K-12 Education Formula: A Primer



**ISSUE  
MEMORANDUM  
2020-xx**

## Introduction

The annual funding for K-12 education is based on a formula that was revised during the 2016 legislative session along with a half-cent increase in the state sales tax. This memorandum will provide an overview of the State Aid to K-12 funding formulas, as well as historical funding data and per student expenditure information.

## Historical K-12 Funding

The current funding formula for general education is based on a target statewide average teacher salary. By statute, the target teacher salary is set to increase annually by the Consumer Price Index for urban wage earnings and clerical workers or by 3%, whichever is less.<sup>1</sup> This funding formula was created by a taskforce comprised of various stakeholders, including school representatives and legislators, and was passed during the 2016 session. Prior to this, South Dakota determined the state aid for general education for each school district based on an allocation per student, referred to as the Per Student Allocation (PSA). Although the current general education funding formula is based on a target teacher salary, it can be converted to a similar per student amount, called the Per Student Equivalent (PSE), which is used for the sparsity formula calculation purposes.

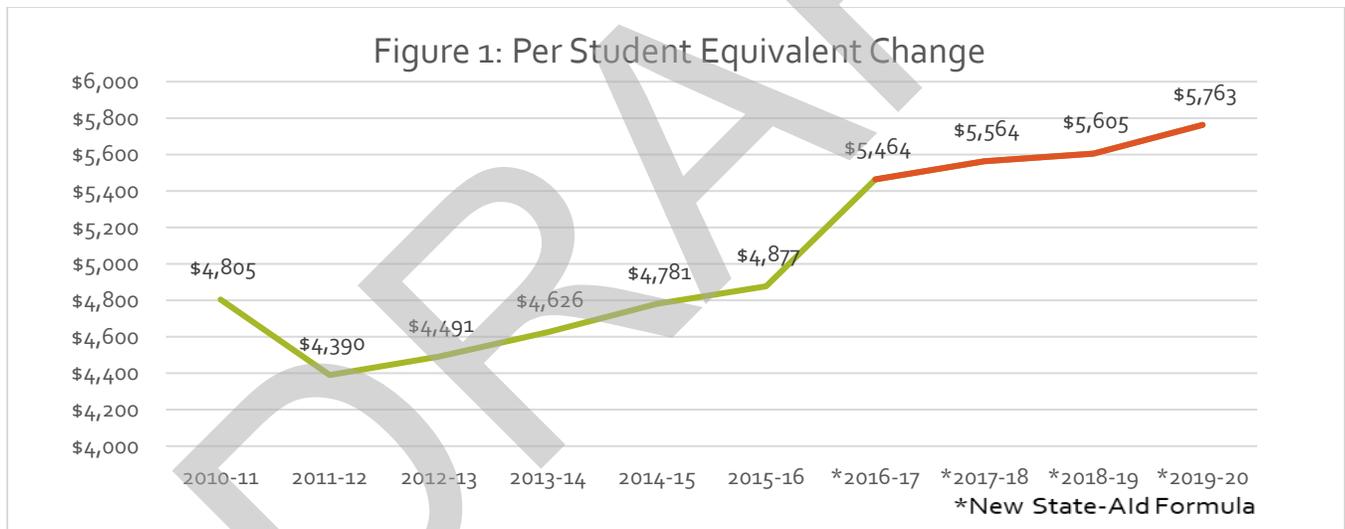


Figure 1 demonstrates the PSA/PSE change over the last 10 years for general education.<sup>2</sup> The current funding formula went into effect during FY2017, and the PSE saw a 12% or \$578 increase per student in just one fiscal year. Although the PSE is only used for the calculation of sparsity in the current formula, it has seen an average increase of 1.8% annually since the implementation of this formula.

Additionally, there are three school districts that opted for an alternative formula that is similar to the old formula in 2020. They are Harding County School District, Hoven School Districts, and White Lake School Districts. These schools chose to use the old formula due to the high levels of other revenue they receive.<sup>3</sup> They have the choice to opt into the new formula, but they will not be able to go back to the old formula once they choose to be part of the current formula.<sup>4</sup>

<sup>1</sup> SDCL 13-13-10.1(3)

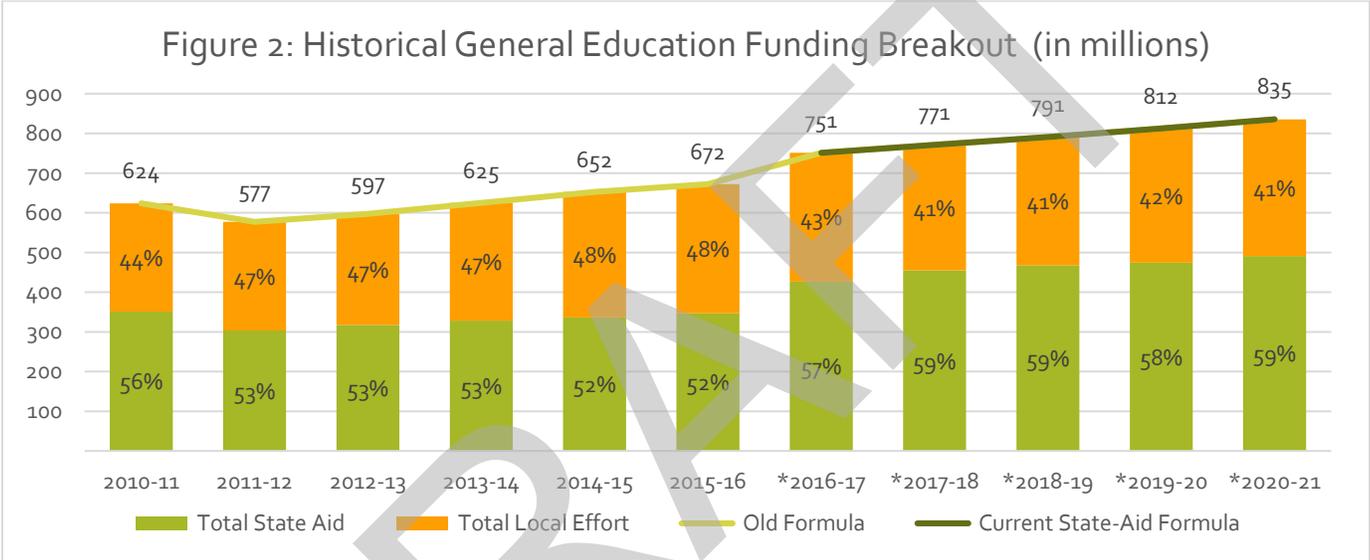
<sup>2</sup> South Dakota Department of Education School Funding in South Dakota

<sup>3</sup> See Step 8 of the State Aid to General Education Formula

<sup>4</sup> SDCL 13-13-10.1(5A)

Figure 2<sup>5</sup> shows the general education funding breakout between the state and local shares over the last 10 years for both general and special education. Under the old formula, local effort contributed between 44% and 48% annually, while under the current formula, the local effort contributes between 41% and 43%. This figure also demonstrates a significant increase in the overall education funding based on the new formula in FY2017. In fact, the new formula added \$79 million to the general education, all of which came from the state share of education funding. The additional funding was the result of a half-cent increase in the state sales tax.

For state aid to special education funding, the current formula is based on student enrollment and the number of students for each disability level. This formula was passed during the 1995 legislative session, and it was a significant change from the old formula which determined the special education funding based on expenditure reports submitted by each school. Additionally, the 1999 and 2001 legislatures passed legislation to expand the disability categories. As of FY2021, there are six disability categories used to determine state aid to special education, which are described later in this issue memorandum.



**Step by Step: State Aid to General Education Formula**

Determining the State Aid to General Education starts with calculating a district's total need. A portion of total need is paid by local property taxes and the remainder is paid by the state through the state aid to general education budget.



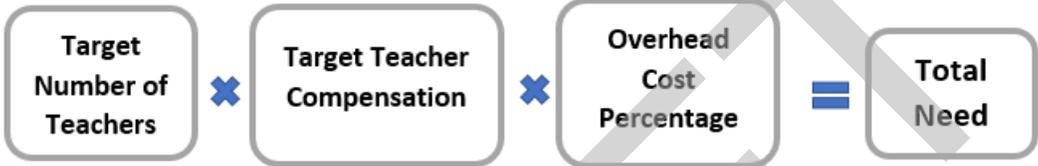
The following table lists the factors used in calculating each component of the fomula. An explanation of each of these items can be found following the table.

<sup>5</sup> South Dakota Department of Education State Aid Data Actual State Aid Expenditure Data



Table 1	
Determine Local Need	1. Target Number of Teachers 2. LEP Adjustments 3. Target Teacher Compensation 4. Overhead Costs
Determine Local Effort	5. Local Effort 6. Other Revenues
Determine State Share	7. State Share of Education Funding

Total Need can be calculated using the following formula:



**Step 1. Target Number of Teachers**

The Target Number of Teachers equals the State Aid Fall Enrollment Count divided by the Target Teacher Ratio. State Aid Fall Enrollment is the number of students enrolled in K-12 schools operated by the school district, minus the students for which the district receives tuition and adding any students for whom the district pays tuition. The count is taken on the last Friday in September, and is used to fund the current fiscal year.<sup>6</sup>

The Target Teacher Ratio uses a sliding scale based on the enrollment:

- Less than 200: 12 students to 1 teacher
- 200 to 600: sliding scale between 12 to 1 and 15 to 1
- Greater than 600: 15 students to 1 teacher

Dividing the fall enrollment by the Target Teacher Ratio provides the Base Target Number of Teachers to be used to assess the total need. For FY2021, the budgeted total target number of teachers is 9,543.37.

**Step 2. LEP Adjustments**

The funding formula takes into account that the students who are considered to have limited proficiency in English and require additional attention from teachers, which adds teachers to the overall target teacher numbers through the Limited English Proficiency (LEP) Adjustment. The adjustment is calculated by multiplying 25% by the number of K-12 students who scored at a level 4 or below on the state-administered language proficiency assessment. This is then divided by the Target Teacher Ratio to arrive at the number of LEP teachers.<sup>7</sup>

For FY2021, 68.68 teachers are added to the total target number of teachers based on LEP adjustments.

**Step 3. Target Teacher Compensation**

The Target Teacher Compensation is comprised of teacher salary and teacher benefits.

The Target Teacher Salary for FY2021 is \$51,367.47.<sup>8</sup> Under statute, the salary is adjusted each year by an index factor, which is the lesser of the annual percentage change in the consumer price index or 3%.

<sup>6</sup> SDCL 13-13-10.1(2C)

<sup>7</sup> SDCL 13-13-10.1(2D)

<sup>8</sup> SDCL 13-13-10.1(4)



In addition, the target salary is multiplied by the target teacher benefit, which is set to 29% of the teacher salary. The total Target Teacher Compensation for FY2021 is \$64,964.74.<sup>9</sup>

**Step 4. Overhead Costs**

School districts incur administrative costs and other operating expenses to provide education. Thus, the funding formula includes additional dollars for these overhead costs. The overhead rate is set by statute and changes annually as other revenues are equalized. The overhead rate for FY2021 is 34.93%.<sup>10</sup> The State Aid share of overhead costs is calculated by multiplying the total need for school districts by the overhead cost percentage.

**Step 5. Local Effort**



Money to fund education comes from state and local taxes. The local portion is called "local effort" and property tax accounts for a significant portion of the local effort. The remainder comes from selected other revenues as outlined in the next section.

The amount of property tax levied is based on the value of a property and the needs of a government, which, in this case, is the needs of schools in South Dakota. The maximum tax levy a school district can impose by property type is set annually in SDCL 10-12-42. School District General Fund levies per \$1,000 of taxable valuation are as follows:

	2020	2021
<b>Agriculture</b>	\$1.473	\$1.443
<b>Owner Occupied</b>	\$3.296	\$3.229
<b>Other/Utilities</b>	\$6.821	\$6.682

Property taxes are based on a calendar year (January 1 through December 31), while state and school district budgets are based on the state fiscal year (July 1 through June 30). Estimating local property tax effort for FY2021 means that the second half of the calendar year 2020 property taxes and the first half of a calendar year 2021 property taxes are estimated.

SDCL 10-13-36 provides an opt-out mechanism for school districts to raise additional revenues beyond the amount generated by the existing tax levy and money from state aid. An opt-out allows the district to impose a higher tax levy.<sup>11</sup> Once an opt-out is approved by the school board, residents within the district can refer it for a public vote.<sup>12</sup>

**Step 6. Other Revenues**

Starting in FY2018, the local effort calculation includes funds from six other revenue sources: the gross receipt tax on utilities, local revenue in lieu of taxes, the county portion of traffic fines, county revenue in lieu of taxes, the wind farm tax, and the bank franchise tax. These revenues are equalized across school districts in the state through the state aid formula.

<sup>9</sup> SDCL 13-13-10.1(4A)  
<sup>10</sup> SDCL 13-13-10.1(4C)

<sup>11</sup> SDCL 10-13-35  
<sup>12</sup> SDCL 10-13-36



In order to equalize these other fund revenues, each school district is assigned a base amount that they are allowed to keep. The base amount is derived from the greatest other revenues collected between FY2013 and FY2015. This base amount is reduced annually by 20%.<sup>13</sup> For FY2021, 40% of the assigned base is excluded from the funding formula, and other revenues above that amount are counted as local effort.

The following table demonstrates an example of other revenue equalization. Cells with the same colors are used to calculate the local effort.

In this example, the base amount for this school district for FY2020 was \$108,000, which is 60% of its initial base. From there, the \$108,000 base is compared with FY2018 other revenues collected of \$120,000. Two-year old data is used to account for data collection and auditing. As a result, the amount above the base, which is \$12,000, is counted as local effort for this district and is equalized to all districts by adding this amount to the total formula funding through a corresponding increase in the formula overhead rate.

Fiscal Year	Base	Other Revenue Base Amount	Other Revenue Collected	Amount counted as Local Effort
2017	NA		120,000	NA
2018	100%	180,000	120,000	0
2019	80%	144,000	120,000	0
2020	60%	108,000	120,000	12,000
2021	40%	72,000	120,000	48,000
2022	20%	36,000	120,000	84,000
2023	0%	0	120,000	120,000

Additional local effort from "other revenues" will not decrease the state portion of education funding. Once the statewide amount of local effort from these other revenues is calculated, that amount is then used to adjust the overhead rate.<sup>14</sup>

As a simplified example, if the statewide total need is \$100 before "other revenue" equalization and the local effort from property taxes is \$40, the state would contribute \$60. If the statewide "other revenue" local effort is \$10, that amount would be added to the statewide total need by increasing the overhead rate. This would bring the statewide total need to \$110, leaving the state contribution at \$60 and increasing the local effort contribution to \$50.

**Wind Farms:** Wind farms that produced energy prior to July 2016 were part of the Other Revenue calculation described above. After this date, the revenue from wind farm taxes is outside of the formula for five years and is phased into the local effort for the following five years using the same step-down mechanism as described above. In other words, the wind farm tax takes 10 years to be fully equalized.<sup>15</sup>

**Step 7. State Share of Education Funding**

The state share of education funding is calculated by taking the total of the Local Need minus the Local Effort.

The FY2021 calculation for the general fund state aid budget is below:

<sup>13</sup> SDCL 13-13-10.1(6A)

<sup>14</sup> See Step 4

<sup>15</sup> SDCL 13-13-10.1()6B



Category	Amount (in millions)
Local Need Total	\$857
Less: Local Effort (Property Tax)	\$344
Less: Local Effort (Other Revenues)	\$22
State Share (State Aid)	\$491

There are currently seven districts that generate more in local effort than the district's total need in the funding formula. In these cases, the state will contribute more funding to make up for the "lost" local effort.<sup>16</sup>

## Accountability

### Average Teacher Compensation:

For FY2019 through FY2021, if a district's average teacher compensation is less than the district's average teacher compensation in FY2017, the state aid to the district in the following fiscal year is reduced by an amount equal to \$500 for each teacher employed by the district.<sup>17</sup> The purpose of this average teacher compensation accountability is to ensure that the half cent sales tax increase is used to increase teacher salaries. This accountability element will end after FY2021.

### Cash Balance Caps:

Starting in FY2019, school districts can be penalized if their lowest monthly general fund cash balance exceeds an amount based on a percentage of their annual expenditures. The purpose of this accountability is to limit the general fund reserves and to ensure that the half cent sales tax increase is used to increase teacher salaries.

The percentage is calculated using an allowable percentage based on student counts:

- Less than 200 students – 40%
- Between 200 and 600 – 30%
- Greater than 600 – 25%<sup>18</sup>

For example, if a school district has fewer than 200 students and its annual expenditures total \$2 million, then the district's lowest monthly cash balance must be less than \$800,000, or 40% of the district's annual expenditures, to be compliant. If a district goes over the cash limits, the state aid for the district is reduced on a dollar-by-dollar basis.<sup>19</sup>

## Sparsity

In addition to the dollars received through the state aid to general education formula, South Dakota recognizes unique challenges among rural schools and awards additional funding for sparsity. "Sparse" districts are eligible to receive 75% of the PSE amount with a maximum payment of \$110,000.<sup>20</sup>

School districts must meet all of the following criteria to be classified as sparse districts:

- Fall enrollment per square mile of 0.50 or less;
- Fall enrollment of 500 or less;
- A school district area of 400 square miles or more;
- A distance of at least 15 miles between its secondary attendance center and that of an adjoining district; and
- Levies at the maximum amount for general fund purposes.<sup>21</sup>

<sup>16</sup> South Dakota Department of Education State Aid Data

<sup>17</sup> SDCL 13-13-73.6

<sup>18</sup> SDCL 13-13-10.1(9)

<sup>19</sup> SDCL 13-13-73.5

<sup>20</sup> SDCL 13-13-79

<sup>21</sup> SDCL 13-13-78



There are 27 school districts that are expected to receive sparsity payments in FY2021.

**Step by Step: State Aid to Special Education Formula**

Similar to the State Aid to General Education formula, the state share of special education funding is calculated by taking the "Total Need" minus the "Local Effort". In addition to local effort, the state aid to special education formula incorporates additional accountability elements of the effort factor and the excess fund balance (see Step 3 of Special Education Section).<sup>22</sup> The property tax local effort is multiplied by the effort factor, and the state aid would be reduced by the amount exceeding 25% or \$100,000 of the fund balance amount.

Table 2	
Determine Total Need	1. Funding Per Disability Level 2. Child Count for Each Disability Level
Determine Local Effort	3. Local Effort 4. Effort Factor and Excess Fund Balance
Determine State Share	5. State Share of Education Funding 6. Extraordinary Cost Fund



**Step 1. Funding Per Disability Level**

South Dakota classifies disabilities into six categories and uses a per-student allocation for each disability level.

Under statute, the per-student allocation for each disability level increases by the Consumer Price Index or 3%, whichever is less, with the exception of the rebase year.<sup>23</sup>

Disability Category (SDCL 13-37-35.1)	
Level 1	Mild disability including speech/language, other health impairment, learning disability, and developmental delay
Level 2	Cognitive disability, emotionally disturbed
Level 3	Hearing loss, deafness, vision loss, deaf-blind, orthopedic impairment, traumatic brain injury
Level 4	Autism
Level 5	Multiple disabilities (2 or more disability levels from levels 2 through 4 not including deaf-blind)
Level 6	Prolonged assistance

**Rebase**

SDCL 13-37-35.2 requires the Department of Education to recalculate the per-student allocations for all disability levels based on statewide average expenditures for the previous three school years. The frequency of the rebasing was changed from every three years to two years by the 2019 Legislature. For FY2021, the disability levels saw an average increase of 7% in the allocation for each disability level. The next rebasing is scheduled for FY2023.

<sup>22</sup> SDCL 13-37-36.3

<sup>23</sup> SDCL 13-37-35.1(6)



Allocation by Disability Level History					
	FY2017 (Rebase)	FY2018	FY2019	FY2020	FY2021 (Rebase)
Level 1	\$5,456	\$5,472	\$5,527	\$5,665	\$6,148
Level 2	\$12,592	\$12,630	\$12,756	\$13,075	\$14,646
Level 3	\$16,049	\$16,097	\$16,258	\$16,665	\$19,182
Level 4	\$15,564	\$15,611	\$15,767	\$16,161	\$15,395
Level 5	\$27,799	\$27,882	\$28,161	\$28,865	\$32,328
Level 6	\$8,007	\$8,031	\$8,111	\$8,314	\$8,256

**Step 2. Child Count for Each Disability Level**

The student count for each disability level in levels 2 through 6 uses the number of students reported with qualified disabilities in the prior school year on the December child count. Level 1, due to the influx of children moving in and out of services for Level 1 disabilities, is based on 10% of the prior year state aid to special education fall enrollment count, which includes fall enrollment of nonpublic schools within the district.<sup>24</sup>

	FY2021 Est. Enrollment	Data
Level 1	15,202	10 % of Special Education Fall Enrollment
Level 2	3,234	# of Students with Level 2 Disability
Level 3	315	# of Students with Level 3 Disability
Level 4	1,924	# of Students with Level 4 Disability
Level 5	546	# of Students with Level 5 Disability
Level 6	309	# of Students with Level 6 Disability

To calculate the need, the student count is multiplied by the per-student allocation for each disability level. The sum of all six levels is the total need for the school.



**Step 3. Local Effort**

The funding for state aid to special education also receives a contribution from the local effort, which is derived from property tax. As with general education, the special education property tax is based on the calendar year (January 1 through December 31), while the state and school budgets are based on the state fiscal year (July 1 through June 30).

The property tax amount is calculated by multiplying the district valuation by the legislatively set levy for special education funding purposes. Unlike general education, the special education levy is the same for all property types. The special education levy for calendar year 2020 is \$1.416 per \$1,000 and for 2021 is \$1.484 per \$1,000 valuation.<sup>25</sup> School districts can also levy up to an additional \$0.200 per \$1,000 if needed to fund special education.<sup>26</sup>

**Step 4. Effort Factor and Excess Fund Balance**

Another unique feature of special education funding is the effort factor and the excess fund balance.

<sup>24</sup> SDCL 13-37-35.1(18)

<sup>25</sup> SDCL 13-37-35.1(7)

<sup>26</sup> SDCL 13-37-16



**Effort Factor:**

An effort factor is the school district's special education property tax in dollars per thousand divided by the special education levy. The maximum effort factor is 1.<sup>27</sup> The school district levy amount must be at or exceed the levy amount set by the legislature to proportionally calculate the state aid to special education funding.

**Excess Fund Balance**

SDCL 13-37-44 limits school districts' fund balances in order to receive the full amount of the state aid to special education funding. If a school district fund balance exceeds the greater of 5% of its prior-year expenditures or \$100,000, the special education state aid for that district would be reduced on a dollar-by-dollar basis.

**Step 5. State Share of Special Education Funding**

The state share of special education funding is calculated by taking the total need minus the local effort and adding accountability elements including the effort factor and the excess fund balance.

The calculation for the FY2021 state aid to special education formula budget is below.

Category	Amount (in millions)
Local Need Total	\$194
Less: Local Effort (Property Tax)	\$151
Plus: Lost Local Effort	\$30
State Share (State Aid)	\$72

Currently, there are 97 school districts<sup>28</sup> that generate more in local effort than the district's total need in the funding formula, which is 65% of the 149 school districts. For FY2021, an additional \$30 million is added to the state portion of the special education funding formula to make up the lost local effort amount.

**Maintenance of Effort**

Per federal regulations for Individuals with Disabilities Education Act (IDEA), state funding made available for special education must not be less than the budgeted amount for previous years, which is referred to as a maintenance of effort. If the estimated state share for special education calculated for the next fiscal year is less than the previous year's budgeted amount, the budgeted amount from the previous fiscal year becomes the budgeted amount for the next fiscal year in order to meet the maintenance of effort requirement. The funding that is not used at the end of the fiscal year can be reverted back to the state's general fund.

**Step 6. Extraordinary Cost Fund**

The South Dakota Legislature sets aside an annual appropriation of \$4 million for the Extraordinary Cost Fund (ECF). Any unused appropriation is carried forward into the next fiscal year to be used for ECF purposes for a maximum amount available of \$5.5 million.<sup>29</sup> This means that up to \$1.5 million can be carried over to the following year. The purpose of this fund is to support eligible districts for high-cost students, programs, or supplemental aid. To be eligible for the ECF, a district must:

- Levy at the maximum Special Education Levy, and
- Have a fund balance less than 10% of the Special Education Fund Expenditures.<sup>30</sup>

For FY2020, 20 school districts were awarded ECF funding, totaling \$2.8 million. The amounts ranged between \$3,949 and \$284,838.<sup>31</sup>

<sup>27</sup>SDCL 13-37-35.1(19)

<sup>28</sup> South Dakota Department of Education State Aid Data

<sup>29</sup> SDCL 13-37-40

<sup>30</sup> SDCL 13-37-40.1

<sup>31</sup> South Dakota Department of Education Summary of FY2020 ECF Applicants



## Conclusion

The state aid to education budget makes up more than a quarter of the general fund expenditure for the state. While the old state aid to general education formula was based on a per student basis, the current formula calculates the funding based on a target teacher salary and the student teacher ratio. Additionally, there are accountability components that limit the general fund reserves and to ensure that the half penny sales tax increase is being used for teacher salaries.

For the state aid to special education formula, the calculation is based on the disability category levels, and the rebase of the per-student allocations occur every two years. The state aid to special education incorporates effort factor and excess fund balance as part of the calculation to ensure fair and equitable distribution of the education formula funds.

DRAFT

This issue memorandum was written by Sakura Rohleder, Fiscal and Program Analyst, on November 16, 2020, for the Legislative Research Council. It is designed to provide background information on the subject and is not a policy statement made by the Legislative Research Council.

