

**Review of the Special Education Component in the
Essential Programs and Services Funding Model**

Report to the Maine Department of Education

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Review of the Special Education Component of the Essential Programs and Services (EPS) Funding Model

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Executive Summary

The 2016 review of the Special Education component of the EPS funding formula raised concerns about several aspects of the model, particularly: 1) inequities arising over time as the result of the “maintenance of effort” provision; 2) questionable accuracy of the high-cost in-district funding mechanism; and 3) questions about the funding approach of a reduced student weight for “high prevalence” districts with substantially more than 15% special education students. The prior report recommended investigation of alternative funding models to replace the system with more descriptive tiers of students that are distinguished by the intensity of their needs. This prior work set the stage for the current analysis.

Based on 2017-18 financial and enrollment data, the challenges that were identified in 2016 have persisted. Additional concerns have emerged about the threshold used for determining high prevalence students and the calculations related to federal IDEA funding in the model. We recommend continued work to develop a replacement funding model using multiple student weights based on levels of student need. Major findings are summarized below.

General Findings

Total special education spending continues to increase at a faster pace than the growth in regular instruction or total education spending, and expenditures continue to outpace the amount of funding allocated through EPS and federal sources. Between 2009-10 and 2017-18, special education expenditures grew by 35.9% while regular instruction increased by 18.8% and total spending (which includes special education) grew 19.3%. The inflation rate over the same time period was 15.6%. However, on a per-pupil basis the picture changes. Because total enrollment in Maine has declined in recent years while special education numbers are increasing, the growth in regular education spending per pupil between FY2012 and FY2018 has grown 22.1% and special education spending per special education pupil has a comparable increase of 23.3%. As a result, the ratio of special education per-pupil spending to regular education per-pupil spending, as reflected in the base weight, is stable from the prior report.

Continuing Concerns with Existing Model

The “high cost in-district” adjustment remains out of date and can no longer be updated with existing data collection. There is no readily available solution to this challenge as the

necessary data collection would not be feasible. A multiple weights model would replace this element in the formula with improved accuracy.

The Maintenance of Effort adjustment is once again growing. After re-setting the base weight at 1.5 for FY2019 to reflect the rising costs of special education, many districts' allocations caught up to their expenditures and the MOE adjustment total fell from \$135M in FY18 to \$68M in FY19. However, it has since grown again to \$83M for FY2020. Given prior analyses that have demonstrated the inequitable distribution of resources arising from this adjustment, the component remains a concern.

New Concerns with the Existing Model

The proportion of Maine students identified as special needs continues to increase, with a statewide prevalence rate of 17.66% in 2018-19. This gives rise to concerns that the existing threshold of applying the "high prevalence" weight for students above 15% of total enrollment may be outdated and merit revision.

Since the last review, there has been a change in the treatment of federal funds. The prior methodology provided a base amount meant to fund the total cost of programs including federal assistance; after applying the base weight for each student, federal funds were subtracted to yield the amount to be funded from state and local sources. The current methodology excludes federal funds from the initial calculation of the district expenditures, which simplifies the process and makes it easier to demonstrate compliance with federal policies of "supplement not supplant." To bring the formula back into alignment, the base weight should be calculated on the basis of state and local spending only. This would decrease the base weight from the current 1.5 to a 1.4. The high prevalence weight has decreased from recent years and is recommended for adjustment from 0.38 (based on total funding) to 0.25 (based on state and local funds only).

Future Funding Model Possibilities

Of the current six steps in the model, three have major validity concerns: the base weight and prevalence weight are based on state averages and are not a good fit for districts with atypical student patterns, and the maintenance of effort component has become inequitable over time. Thus the overarching recommendation from this review is that the current six-step special education funding model be replaced in the future with a multiple-weight model.

Overall, feedback from practitioners provided much encouragement that it would be generally feasible to develop a tiered system of funding based on four categories of students: regular classroom placement, inclusive classroom with additional adult support, resource room, and self-contained classroom. Students placed out-of-district could be considered separately, similar to the current method. Stakeholders also proposed a "tier zero" or "pre-special education" weight to fund early intervention services for students at risk, which could serve to reduce special education identification rates and improve outcomes for students at a lower

cost. Multi-Tiered System of Support (MTSS) interventions cannot be charged as special education and would need separate treatment in the model.

A new funding system would replace current base weight, prevalence adjustment, high-cost in-district elements. With a more refined model of costs that is based on the specific subgroups of students in each district, allocations would be a better fit to actual costs. This should allow for it to be possible to eliminate or modify the inequitable “maintenance of effort” provision at the time of implementation.

Further work to develop a tiered funding model requires more robust expenditure data for the program codes aligned to regular classroom, resource room, and self-contained placement settings. As a first step, districts should increase their use of these existing program cost categories. This may require additional guidance and support to financial managers. In this process, feedback should be sought from practitioners to better understand the challenges of coding expenditures by placement setting.

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Purpose of the Study

This study details the most recent analysis and review of the special education funding component of Maine’s Essential Programs and Services (EPS) school funding model, as required periodically by statute (MRSA Title 20-A Section 15686-A). The special education funding component is a multi-step funding model in itself with six distinct pieces. The most recent review in 2016 provided a comprehensive description of the regulatory and policy context that has shaped the development and implementation of the funding system; some readers may wish to refer to that report for additional background.¹ The prior review identified several areas of concern with the performance of the funding component over time; key excerpts of that report are included in the section below. This report repeats some of the same analyses, and also follows up with additional questions that were identified in that 2016 research. The current report concludes with potential policy options for improving the special education funding component in the EPS model through substantial modifications.

Background: Summary of Prior Report Findings

Because the focus of this report stems largely from issues identified in the prior (2016) review, it is relevant to review certain key findings as a foundation for the current review.

Student Weights

The 2016 review found that the ratio of spending on special education programs compared to regular education has steadily grown over time. The report recommended increasing the additional base weight for students with special educational needs from 1.2 to

¹ Johnson, A., Merrill, T., and Sloan, J. (2016). *Analysis of the Essential Programs and Services Special Education Cost Component; Maine Education Policy Research Institute (Gorham, ME)*. Available for download at https://www.maine.gov/doe/sites/maine.gov.doe/files/inline-files/SPED%20Review7.18.2016_Updated3.31.17.pdf

1.5, a 25% increase. This recommendation was implemented and the increased weight of 1.5 was used for the EPS allocations starting with FY2019.

The 2016 report found a slightly decreased proportion of spending per special education students in regular classroom placements compared to non-special education students, and as a result the high-prevalence weight decreased from 0.38 to 0.35 for the number of students above 15% of the enrolled student count. This change was not implemented at the time the base weight was increased, and the 0.38 weight remains in use.

High-Cost In-District Students

The 2016 report contained explanation for the lack of data related to this component, and provided some related analysis of costs in various placement settings (regular classroom, resource room, or self-contained). These analyses were the impetus for the feasibility study described in the current report, in which researchers investigated options for creating a tiered student weight system for students with varying needs. Additional details about the challenges of capturing and analyzing costs for students receiving more intensive services and interventions are included in the feasibility study section of this report.

High-Cost out-of-District Students

Unlike in-district expenditures, spending patterns for services attributable to students in out-of-district placements are better understood. The nature of tuition agreements and billing arrangements means that there are detailed records at the SAU about the cost of services provided. SAUs provide detailed expenditure reports to the MDOE about this component, making the data more reliable and easier to isolate. Over the five years between FY2011 and FY2016 the number of students in out-of-district placements fluctuated, as did their per-pupil expenditures. There was no clear pattern that would suggest changes to that element of the formula.

Maintenance of Effort

The 2016 report presented detailed analyses and discussion of the sixth and final step in the special education funding formula, the “Maintenance of Effort” provision. In summary, this element grew over time to be the second largest piece of the special education formula, and it effectively undermined the “adequacy” intent of the model. Rather than receiving funding

based on student needs, this provision resulted in districts receiving funding based on their historical spending patterns. Districts that have more property and community wealth tend to be able to raise more funding for education, and are thus rewarded with additional funds in subsequent funding allocations. The inequities that resulted from the Maintenance of Effort component were another major driver for the feasibility analysis described in this report.

Overview of Special Education Prevalence, Disability, and Placement Trends

The trend of an increasing special education prevalence rate has continued. The prevalence rate is the proportion of the total student population that has been identified as having special educational needs due to a disability. Table 1 displays the number of special education students and total enrollment in Maine in recent years, as well as the special education prevalence rate. Several trends are noticeable. While the total enrollment increased for two years in a row after reaching its lowest point in the 2016-17 school year, both the number of special education students and the prevalence percentage have continued to increase in each of the five years.

Table 1. Special Education Prevalence Rates, 2011-12 to 2017-18

Year	Special Education Students	Maine Total Enrollment	Sp. Ed. Prevalence
2014-15	29,897	183,997	16.25%
2015-16	30,331	183,309	16.55%
2016-17	30,455	179,854	16.93%
2017-18	31,768	180,650	17.59%
2018-19	32,221	182,496	17.66%

The prevalence of certain disability categories has continued to increase more than others. There are notable trends in the identification rates of some disabilities between 2009-10 and 2017-18, as seen in Table 2. There have been large increases in several classes of disabilities in terms of both the absolute change in the number of students and the percent change. There are more students with autism, multiple disabilities, and other health

impairment (which includes ADHD) in Maine schools. Each represents a large number of students and has had increases significantly above the 6% increase in the overall identification rate. These three categories taken together accounted for 42% of all students with disabilities in 2017-18 (13,301 out of 31,860), which is up from 35% in 2009-10. Students with Autism represented 7.2% of all students with disabilities in 2009-10, but by 2017-18 the proportion increased to 9.7%. The different proportions of disabilities have demanded commensurate shifts in the types of services that schools must offer to meet their students' needs.

Table 2. Changing Context of Children with Special Needs, FY10 to FY18: Disabilities (Including state agency clients and state wards)

	Total Number of Sp. Ed. students (Oct. 1 Counts)		Change in Total Number	Percent change
	2009-10	2017-18		
Autism	2,165	3,097	932	43%
Deaf-Blindness	5	11	6	120%
Developmentally Delayed	155	173	18	12%
Emotional Disability	2614	2,276	-338	-13%
Hearing Impairment	225	144	-81	-36%
Intellectual Disability	735	835	100	14%
Multiple Disabilities	2822	3,451	629	22%
Orthopedic Impairment	53	54	1	2%
Other Health Impairment	5660	6,753	1,093	19%
Specific Learning Disability	9508	9,914	406	4%
Speech and Language Impairment	5949	5,063	-886	-15%
Traumatic Brain Injury	74	47	-27	-36%
Visual Impairment Incl. Blindness	70	42	-28	-40%
Overall	30,035	31,860	1,825	6%

Another trend is that generally, slightly more students are “mainstreamed” or being included in regular classrooms for 80% or more of the instructional day. This practice is in keeping with the principle of placing special education students in the least restrictive environment (LRE) possible where their needs may be met. Table 3 illustrates these trends and

how they vary for specific disabilities. The overall rate of regular classroom in-district placements has continued to increase very slightly.

Table 3. Placement of Children in Less Restrictive Environments, FY10 to FY18

	Percent Placed In-District (Oct. 1 Counts)			Percent of In-District In Regular class 80% or more of day		
	2009- 10	2017- 18	Change	2009- 10	2017- 18	Change
Autism	93.7%	92.6%	-1.1%	47.1%	44.5%	-2.6%
Deaf-Blindness	60.0%	90.9%	30.9%	33.3%	60.0%	26.7%
Developmentally Delayed	98.1%	98.8%	0.8%	61.2%	60.2%	-1.0%
Emotional Disability	88.0%	88.1%	0.1%	49.7%	53.6%	3.9%
Hearing Impairment, Deafness	90.7%	100.0%	9.3%	76.0%	64.6%	-11.4%
Intellectual Disability	96.1%	97.1%	1.1%	7.5%	11.3%	3.8%
Multiple Disabilities	92.7%	92.0%	-0.7%	28.5%	34.7%	6.1%
Orthopedic Impairment	98.1%	94.4%	-3.7%	78.8%	66.7%	-12.2%
Other Health Impairment	97.5%	97.6%	0.1%	61.7%	63.0%	1.3%
Specific Learning Disability	99.3%	99.5%	0.2%	61.1%	60.7%	-0.4%
Speech, Language Impairment	99.4%	99.4%	0.0%	78.7%	84.6%	5.9%
Traumatic Brain Injury	93.2%	89.4%	-3.9%	42.0%	50.0%	8.0%
Visual Impairment	95.7%	95.2%	-0.5%	77.6%	60.0%	-17.6%
Overall	96.8%	96.7%	-0.1%	58.8%	59.2%	0.4%

Overview of Special Education Expenditures and Allocation Trends

Growth in special education expenditures has continued to outpace regular instruction expenditures. Total operating expenditure of state and local funds in Maine School Administrative Units (SAUs) in Fiscal Year 2017-18 was \$2,474,336,927 as indicated in Table 4. Regular education instruction accounted for \$992,286,199 or 40% of the total, and special education instruction was \$413,982,414 or 17%. Expenditure for special education instruction increased by a greater percentage (35.9%) from Fiscal Year 2010 to Fiscal Year 2018 than regular education (18.8%). The inflation rate over the same time period was 15.6%.²

Table 4. Total Spending in Regular and Special Education (in \$Millions)

	2009-10 Expend.	2011-12 Expend.	2013-14 Expend.	2015-16 Expend.	2017-18 Expend.	Increase FY2010 to FY2018
Regular Instruction	\$835.3	\$844.8	\$895.0	\$940.4	\$992.3	18.8%
Special Ed. Instruction	\$304.6	\$305.7	\$337.6	\$368.0	\$414.0	35.9%
Total Education Spending	\$2,074.7	\$2,069.6	\$2,188.3	\$2,307.1	\$2,474.3	19.3%

On a per-pupil basis, the increase in special education instructional expenditure is similar to the increase in regular education when core non-instructional expenditures are included. Table 5 shows *per-pupil* operating expenditure for regular education—which is defined here to include not only regular instruction (as shown in Table 4) but also student and staff support, school and system administration, and operation and maintenance of physical plant—compared to special education instruction from Fiscal Year 2012 through Fiscal Year 2018. Unlike the analysis above, which showed greater increases in total special education expenditure compared to total expenditure on regular instruction only, this analysis shows that on a per-pupil basis special education instruction expenditure increased by a similar proportion (23.3%) to regular education (22.1%) over that period. The reason for the difference in the analyses is both that the special education prevalence rate has increased and that areas other than instruction are included in the regular education expenditures.

² Using Consumer Price Index, <https://www.bls.gov/cpi/>

Table 5. Per Pupil Operating Expense (Dollars)

	FY 2011-12	FY 2013-14	FY 2015-16	FY 2017-18
Per-pupil Spending				
Regular Education	7,734	8,443	8,897	9,598
Special Ed. Instruction	10,371	11,326	12,133	13,031
% Increase from 2011-12				
Regular Education	<i>N/A</i>	9.0%	14.4%	22.1%
Special Ed. Instruction	<i>N/A</i>	9.0%	16.0%	23.3%

Special Education EPS Allocation and Actual Expenditure

Although there have been recent changes to several components of the EPS special education model, the total special education allocation statewide that results from the EPS model has increased similarly to actual total allowable special education expenditures: the total allocation, as before, is similar to allowable expenditure two years prior. The total statewide amounts of each of the components for several recent years are listed in Table 6 along with the total EPS special education allocation and total allowable expenses and special education expenditure. The Base Weight is by far the largest component and has shown growth of \$59.4 million (from \$212.4 million to \$271.8 million) in the eight years from 2011-12 to 2019-20. The vast majority of the growth between 2017-18 and 2019-20, which amounts to \$55.1 million of that 59.4 million was due to an increase in the EPS Special Education Base Weight effective in the 2019-20 funding year.

Maintenance of Effort, which is the second largest component in the EPS special education cost allocation model, has been affected in recent years by the increase in actual SAU expenditures on special education and the recent increase in the EPS Special Education Base Weight. It increased greatly from 2011-12 through 2017-18, by \$91.3 million (from \$43.6 million to \$134.9 million) due to increases in actual expenditures. Then, between 2017-18 and 2019-20, it decreased by \$51.9 million (from \$134.9 million to \$83.0 million). This was because of the increase in the EPS Special Education Base Weight mentioned above. Because the allocation for the base weight was increased, there was not as far to go to bring the allocations up to equal

prior actual expenditures. The resulting \$83.0 million maintenance of effort adjustment in 2019-20 is \$39.4 million higher than the \$43.0 million in 2011-12.

Other components, important on their own, are smaller in terms of their impact on the total EPS special education allocation. The smallest component is the Small Size Adjustment. Although it is a small amount statewide, it may be important for the few very small SAUs that operate small special education programs and receive the adjustment.

**Table 6. EPS Special Education Components, Allocation, and Expenditure
2011-12 to 2019-20 (\$millions)**

	FY2012	FY2014	FY2016	FY2018	FY2020
Components:					
Base Weight	\$212.4	\$215.4	\$228.6	\$216.7	\$271.8
Prevalence Adjustment	\$5.4	\$6.2	\$8.1	\$10.5	\$14.2
Small Size Adjustment	\$1.3	\$1.1	\$1.2	\$1.4	\$1.6
High Cost In-District	\$16.8	\$17.2	\$17.7	\$18.0	\$18.7
High Cost Out-of-District	\$5.1	\$5.3	\$6.5	\$6.7	\$7.0
(less Federal Revenue)	(\$37.1)	(\$40.0)	(\$40.8)	(\$46.0)	-**
Maintenance of Effort	\$43.6	\$73.5	\$91.7	\$134.9	\$83.0
Total Allocation	\$247.6	\$278.7	\$313.1	\$342.2	\$396.3
Allowable Expense*	\$281.7	\$314.7	\$346.5	\$391.4	n.a.
Total Expenditure	\$305.7	\$337.6	\$368.0	\$414.0	n.a.

*Allowable expense is shown net of Medicaid reimbursement.

**Prior to FY 2018-19, federal revenues were subtracted from total allocation.

Allowable special education expenses as well as total special education expenditure are listed at the bottom of Table 6 below the total allocation. Allowable expenses, two years prior, are used in determining the amount of the Maintenance of Effort adjustment and consequently affect the total allocation, as represented by the arrows in the table. Because many SAUs qualify for the Maintenance of Effort Adjustment, the total allocation is very similar to the corresponding year allowable expense (i.e., two years prior). Another result of this, together

with the constantly increasing allowable expenses, is that the total allocation is less than the allowable expense for each year on the table where full data is available. Total expenditure is also listed on the table and represents all reported expenditures in the special education instruction budget category. It is consistently higher than the allowable expense, indicating that districts are using local funds to supplement costs not covered by the model.

Review of EPS Special Education Cost Model Components

Base Weight

The ratio of per-pupil spending on special education students to per-pupil regular education spending has remained stable in recent years. This ratio has been used to calculate and update the EPS special education base weight. The EPS special education base weight is an additional pupil count for each special education student, up to a special education prevalence of 15% of total enrollment assigned to the SAU when calculating its EPS allocation. The current EPS base weight calculated in 2016 is 1.5, which means special education students were calculated to cost 2.5 times as much as non-special education students statewide. That is, for each special education student, the SAU receives their per-student allocation from the regular EPS model plus an additional 1.5 students to cover special education for the student.

Table 7 shows an updated calculation of the base weight. The ratio is based on total general fund special education expenditure, less Medicaid revenues, plus expenditures of federal funds. The ratio of special education spending to regular education spending can be calculated either with the inclusion of spending from federal funding sources (total cost of special education) or excluding federal funds (state and local share of special education). If only the state and local costs are included in the model, the base weight is a lower proportion compared to regular education, as seen in Table 7.

Table 7. Calculation of Base Weight With and Without Federal Funds

		FY2012	FY2015	FY2018
In \$Millions	Total General Fund Special Ed Expense	\$288.8	\$335.9	\$391.4
	less Medicaid Revenues	(\$7.3)	(\$8.3)	(\$6.6)
	State and Local Special Ed Costs Excluding Medicaid	\$281.5	\$327.7	\$384.7
	Federal Expenditures	\$39.2	\$44.1	\$48.1
	Total	\$320.6	\$371.7	\$432.8
Special Ed Pupils (excluding State Agency clients and State Wards)		28,182	29,052	30,584
Base weight calculation <i>including</i> federal		FY2012	FY2015	FY2018
In \$Dollars	Regular Ed Per Pupil Expense	\$7,734	\$8,684	\$9,182
	Special Ed Added Per Pupil Expense	\$11,377	\$12,795	\$14,153
	Total Special Ed Per Pupil Expense	\$19,111	\$21,479	\$23,335
Ratio of Total Special Ed Per Pupil to Regular Ed Per Pupil		2.5	2.5	2.5
Base weight calculation <i>not</i> including federal		FY2012	FY2015	FY2018
In \$Dollars	Regular Ed Per Pupil Expense	\$7,940	\$8,443	\$8,684
	Special Ed Added Per Pupil Expense	\$9,989	\$11,280	\$12,580
	Total Special Ed Per Pupil Expense	\$17,929	\$19,723	\$21,264
Ratio of Total Special Ed Per Pupil to Regular Ed Per Pupil excluding Federal		2.3	2.3	2.4

When federal funds are included, the most recent year of data indicated a cost ratio of 2.5 for special education students, the same as prior years. This would again yield a base weight of 1.5. Prior to 2018-19, federal funds for special education received by each SAU were subtracted from its EPS base allocation, because the calculation of the base weight included expenditure of federal funds. However, beginning in 2018-19, federal funds were no longer subtracted from SAU base allocations. Because of this change, it may be preferable to exclude federal funding from the spending ratio. Thus a revised base weight was also calculated to model only expenditure of state and local funds, excluding expenditures from federal sources. The revised base weight without federal funds would be 1.4.

Updated parameter: Based on recent data, an updated base weight would be 1.5 including federal funds or 1.4 for state and local funds only. If using the base weight with federal funds, it is recommended to subtract federal funds from the total EPS allocation. Past practice was to subtract before applying the Maintenance of Effort (MOE) provision; subtracting it as the final step (after the MOE adjustment) can also be considered. If it is preferable to avoid the practice of subtracting federal funding from the allocation, as that has historically created some confusion with respect to the “supplement not supplant” principles of federal allocations, then the lower base weight of 1.4 should be implemented. Additional analysis of the allocation patterns for federal funding is included below.

Base Weight Conversion: To apply the base weight to the EPS rates, a conversion should be made, because the base weight of 1.5 or 1.4 is calculated on a *per-pupil* expenditure within one specific year (2017-18). Within each funding year the base weight should be multiplied by the *average EPS pupil weight*. The average EPS per-pupil rate may be found by dividing the total EPS allocation statewide (after EPS weighted pupil counts have been applied) by the total base EPS allocation (before EPS weighted pupil counts have been applied).

High Prevalence Adjustment

For each special education student beyond 15% prevalence, the EPS model recognizes an additional weight based on the relative cost of special education students in a regular class placement, i.e. students who spend less than 20% of their time outside of the regular classroom setting. Beyond the base allocation for the first 15% of students identified as special needs, additional students are presumed to have high-incidence disabilities that can be met in regular classroom placements at lower costs. The current additional weight for special education students beyond a 15% prevalence rate is 0.35. The calculation of an updated weight based on recent expenditure data, including instructional costs for special education students in regular classroom placements and also a proportional amount of the total special education administrative costs, is shown in Table 8 and Table 8a below. As with the base weight, this component was calculated both with and without expenditures from federal funds.

**Table 8. Updated Calculation of the High Prevalence Component
(Includes Federal Funds)**

	FY2015	FY2018
Students in Regular Class Placements	17,193	18,228
Special Ed Expense	\$34,087,683	\$31,691,670
Allocated Administrative Expense	\$18,234,506	\$17,892,362
Total Expense	\$52,319,189	\$49,584,032
Total Expense Per Student	\$3,043	\$2,720
Regular Ed Expense Per Student	\$8,684	\$9,182
Incremental Weight	0.35	0.30

**Table 8a. Calculation of the High Prevalence
Component FY2018 (State/Local Funds Only)**

	FY2018
Students in Regular Class Placements	18,228
Special Ed Expense	\$25,966,749
Allocated Administrative Expense	\$16,176,770
Total Expense	\$42,143,519
Total Expense Per Student	\$2,312
Regular Ed Expense Per Student	\$9,182
Incremental Weight	0.25

Updated parameter: Based on the most recent year of data, an updated additional weight for special education students in excess of 15% of resident enrollment is 0.30 including federal funds or 0.25 without federal funds.

Threshold for Prevalence Component

The limit of 15% prevalence for applying the base has been in effect since the implementation of the EPS Special Education Component. However, as noted in the discussion around Table 1, statewide prevalence rates have been increasing consistently and reached 17.66% in 2018-19, the enrollment year on which the FY2020 special education allocations were based. There were 138 SAUs below and 128 SAUs above that average prevalence rate. A total of 51 SAUs had prevalence rates between 15% (the current threshold in the formula) and 17.66% (the average used for FY2020 allocations). This means that they had *below* average

prevalence rates, but had at least some of their students funded at the lower weight as if they were high prevalence student counts.

If the threshold in FY2020 had more closely reflected the average prevalence, then all districts with prevalence rates above 15% would have received an additional weight of 1.15 for the number of students between 15% and 17.66% (i.e. the impact of applying the higher 1.5 base weight instead of the 0.35 prevalence rate for these students). The effect would be to increase their overall allocation for these two components.

If the prevalence threshold were adjusted at the same time that the base weight is modified to reflect only state and local spending, the changes would offset each other and the overall impact of lowering the base weight could be somewhat mitigated.

As a rough approximation, model allocations for FY2018 were recalculated using these different assumptions: adjusting the base weight from 1.5 to 1.4 to reflect the exclusion of federal funding in the EPS allocation; adjust prevalence weight from .38 to .25 based on new data and the exclusion of federal funding; and apply an increased “high prevalence” threshold of 17.7%. Despite the smaller base weight, the application of the higher threshold would more than make up for the adjustment and the base allocation would *increase* from \$271.8M (actual FY18) to \$285.0M. This would be offset by the changes in the prevalence weight; the actual FY18 high prevalence total was \$14.2M, and the estimated total with a decreased weight of .25 applied to a smaller number of students above the 17.7% threshold would be \$3.8M. Thus the impact on the overall totals of these two components would have been an increase of about \$2.8M, from \$286.0M to \$288.8M. It is critically important to note that these **are not estimates** of the actual FY18 allocations, which were further modified by additional adjustments including the Maintenance of Effort provision. The MOE model step would overrule many of the impacts of the base weight prevalence calculations and final allocations may not have changed at all in many districts.

Small Size Component

The Small Size Adjustment is the smallest component of the EPS special education cost model. Although it is a small amount statewide, it may be important for the few very small SAUs that operate small special education programs and receive the adjustment. SAUs with

fewer than 20 students receive an adjustment to their EPS special education allocation. The current additional weight for programs with fewer than 20 students is 0.29. Table 10 lists the per pupil expenditure by attending enrollment. SAUs with fewer than 20 attending students are shown to have higher expenditures than other enrollment groups by 37%. Per pupil expenditures for SAUs with fewer than 10 were higher than those with between 10 and 19 students. The additional expenditures for the groups were 44% and 34%, respectively.

Table 9. Per-Pupil Expenditure by Attending Enrollment Group 2017-18

Attending Sp. Ed. Pupils	# of Districts	Attending Per-Sp. Ed. Pupil Expenditure	Additional Expenditure
Less than 10	22	\$17,407	44%
10-19	21	\$16,272	34%
Less than 20	43	\$16,570	37%
20-29	19	\$13,670	13%
30-39	12	\$11,204	-8%
40-49	10	\$9,568	-21%
50-99	26	\$10,153	-16%
100 or more	89	\$12,124	0%
Overall	199	\$12,121	0%

Updated Parameter. Based on the analysis above, an additional weight of 0.37 may be used in calculating the small size special education EPS component for all SAUs with attending special education enrollment below 20. Alternatively, an additional weight of 0.44 may be used for SAUs with attending enrollment below 10 and an additional weight of 0.34 for SAUs with between 10 and 19 attending special education pupils.

Implementation Considerations for the Small Size Component. In practice, the small size component has been calculated for each SAU based on the *resident* special education enrollment. As a result, SAUs that do not operate schools and therefore do not operate a small special education program, but rather send their few special education students (fewer than 20) to a larger SAU, may be receiving additional subsidy dollars that do not reflect real

additional costs of operating a small program. Table 10 lists the per pupil expenditure by *resident* enrollment. Whereas only 43 SAUs actually operate programs with fewer than 20 attending special education students, 81 SAUs have fewer than 20 *resident* special education students. SAUs with fewer than 20 resident students are not seen to have higher expenditures compared to other enrollment groups. On the contrary, SAUs with the smallest number of resident students have the lowest costs per resident student. Thus, when the small size component weight is applied during the calculation of subsidy, SAUs should be grouped by attending special education enrollment, not resident enrollment. Alternatively, to achieve a similar practical effect, the adjustment could be allowed only for SAUs that operate schools.

Table 10. Per-Pupil Expenditure by Resident Enrollment Group 2017-18

Resident Pupils	# of Districts	Resident Per-Pupil Expenditure	Additional Expenditure
Less than 10	54	\$7,532	-37%
10-19	27	\$10,511	-12%
Less than 20	81	\$9,409	-21%
20-29	18	\$10,178	-15%
30-39	17	\$10,231	-14%
40-49	9	\$10,958	-8%
50-99	23	\$10,558	-12%
100 or more	90	\$12,014	1%
Overall	238	\$11,932	0%

*Note the 81 SAUs with fewer than 20 *resident* Special Education students include 47 SAUs with no *attending* special education students.

High Cost In-District Component and Analysis of Expenditures by Placement

It is not feasible to analyze the high-cost in-district element of the EPS model special education component with currently available data. This model element was developed over ten years ago using expenditure information that linked individual students to the services they received. The data served as a basis for estimating costs of students with different disabilities and in different placement settings (regular classroom, resource room, or self-contained classroom). Because collecting and reporting such detailed student-level service and

expenditure data was costly and difficult, the decision was made to stop collecting the data. It has not been available for many years. In the time since implementation of the initial model, with no available data upon which to base an update the amount of high cost in-district component for each SAU has merely been carried forward and increased by an inflation factor each year.

Table 11 provides an approximate sense of the average costs per student in different placement settings in the most recent fiscal year. It is noteworthy that the placement setting of any individual student may not predict the cost of services they receive. For example, certain students are provided with intensive supports in order to be successful in a regular classroom setting, and may have service costs that are higher than the average special education student. This issue is discussed more thoroughly in the feasibility section of this report.

Overall, instructional costs for students in regular classroom placements were \$2,720 per student in FY 2018, while resource room students and self-contained classroom students cost \$13,209 and \$25,237 each, respectively. This validates that the placement setting has a strong role in predicting costs. It could potentially be used as a factor among other factors in either a revamped high cost in district adjustment or in a possible multiple-weights funding system in place of the current EPS base weight and adjustments model. However, the expenditure reporting by placement setting (identified by the “program” accounting code) were not robust. This has implications for analysis that are discussed in the feasibility section below. Whereas Table 11 includes state, local and federal find expenditures, Table 11a provides a similar analysis without federal funds.

Table 11. Special Education Instruction Expenditure by In-District Placement Setting

Funding Source	State/Local and Federal 2017-18			
Placement	Regular Class	Resource Room	Self-Contained	Homebound Hospital
Students	18,228	9,258	3,302	28
Instruction Expenditure	\$31,691,670	\$113,204,519	\$80,091,460	\$501,866
Allocated Administrative Expense	\$17,892,362	\$9,087,530	\$3,241,199	\$27,484
Total Special Education Expense	\$49,584,032	\$122,292,048	\$83,332,660	\$529,351
Total Expense Per Student	\$2,720.21	\$13,209.34	\$25,237.03	\$18,905.38
Incremental Ratio	0.30	1.44	2.75	2.06

**Table 11a. Special Education Instruction Expenditure by In-District Placement Setting
(State/Local Funds Only)**

Funding Source	State/Local Only 2017-18			
Placement	Regular Class	Resource Room	Self-Contained	Homebound Hospital
Students	18,228	9,258	3,302	28
Instruction Expenditure	\$25,966,749	\$102,367,100	\$75,351,059	\$468,733
Allocated Admin. Expense	\$16,176,770	\$8,216,181	\$2,930,420	\$24,849
Total Special Education Expense	\$42,143,519	\$110,583,281	\$78,281,479	\$493,582
Total Expense Per Student	\$2,312.02	\$11,944.62	\$23,707.29	\$17,627.92
Incremental Ratio	0.25	1.30	2.58	1.92

High Cost Out of District

Allocation amounts for students in High Cost Out-of-District placements have fluctuated in recent years. The EPS high cost out-of-district special education cost component is an additional allocation that applies only to special education students who meet two criteria: (1) the student is placed in a program or facility outside the district, and (2) the actual expenditure on the student exceeds four times the special education per-pupil rate. The amount of the adjustment is equal to the actual expenditure minus four times the statewide average per-pupil special education amount. Table 12 lists amount of the allocation statewide from 2011-12 through 2019-20. The total amount of the component has fluctuated in recent years rather than consistently increasing or consistently decreasing. The most recent year shows a decrease, but the general trend has been upward. The High cost out-of-district allocation is the second smallest component of the EPS special education Cost model, but the resulting allocations may be very important to some SAUs receiving them, especially if one student or a small number of high cost students in the SAU account for a substantial proportion of the actual special education expenditures.

Table 12. High Cost Out-of-District Allocation

Year	High Cost OOD Allocation	Change
2010-2011	\$7,086,866	
2011-2012	\$5,134,808	-28%
2012-2013	\$6,340,047	23%
2013-2014	\$5,283,997	-17%
2014-2015	\$5,572,269	5%
2015-2016	\$6,499,693	17%
2016-2017	\$6,591,070	1%
2017-2018	\$6,709,288	2%
2018-2019	\$8,009,386	19%
2019-2020	\$7,045,734	-12%

Maintenance of Effort (MOE)

The Maintenance of Effort adjustment is the second largest component of the EPS special education cost model. It is an adjustment intended to assure that funding is sufficient for SAUs to meet the federal maintenance of effort requirement, and thus it is determined based on each SAUs actual total or per-pupil special education expenditures. According to federal statute, a school district may not reduce the level of expenditures for support for special education for the preceding fiscal year. Exceptions to this rule include the loss of special education personnel, a decrease in enrollment of special education children, and the termination of programs that are no longer needed. The EPS Special Education cost model includes a simplified estimate of the amount an SAU might need to fulfill the federal maintenance of effort (MOE) requirement.

Specifically, during this step in the EPS cost-model building process, the most recent year of prior approved spending is compared two ways to the next prior year to see if effort was maintained. First, the total approved state and local spending is calculated for the two-year old data. Then a total spending per pupil with disabilities is also calculated using the enrollment data for that year. Two potential target funding amounts are calculated for the one-year old data: the first is the matching total spending (flat total amount), and the other is the amount

that would be spent if the same per-pupil amount from two years ago were spent in the one year prior. If the prior one-year is greater than the two-year old data by either the total or per pupil amount, the district has maintained effort. If not, the cost model will provide additional funds so that the district receives in the *following* (upcoming) fiscal year an amount equivalent to the two-year old spending level, using the lesser of the total amount or projected total based on the per-pupil amount.

Maintenance of Effort is a large component and has been affected in recent years by two contrary influences: an increase in actual SAU expenditures on special education and a recent increase in the EPS Special Education Base Weight. Increases in actual expenditures on their own increase the maintenance of effort allocations, while increases in the base weight allocation tend to reduce it. The amount of the component for each year from 2006-07 through 2019-20 is shown in Table 13. It increased greatly from 2006-07 through 2017-18 by \$105.1 million (from \$29.8 million to \$134.9 million). However, due the increase in the EPS Special Education Base Weight mentioned above, it was nearly cut in half, decreasing by \$66.6 million (from \$134.9 million to \$68.3 million) from 2017-18 to 2018-19 before rising again the following year. The most recent amount of \$83.0 million in 2019-20 is much lower than at its peak but remains higher than any year before 2015-16.

Table 13. Year-to-year Growth of the Maintenance of Effort Component, 2006-07 to 2019-20

Year	Total MOE Component	# SAUs with Sp. Ed. Allocat.	% SAUs receiving MOE Adjust.	% Change in MOE from prior year	Total EPS Special Education Allocation	MOE as % of Special Education Allocation
2006-07	\$29,764,013	261	52.9%	1.76	\$217,655,690	13.67
2007-08	\$36,717,407	267	55.1%	23.36	\$230,840,091	15.91
2008-09	\$35,902,754	275	54.9%	-2.22	\$220,891,731	16.25
2009-10	\$39,855,017	265	49.4%	9.11	\$231,985,596	17.18
2010-11	\$37,670,261	196	54.1%	-0.05	\$239,529,993	15.73
2011-12	\$43,644,826	212	57.1%	15.86	\$247,585,821	17.63
2012-13	\$61,723,299	197	67.0%	41.42	\$260,084,954	23.73
2013-14	\$73,499,099	201	73.6%	19.08	\$275,121,995	26.72
2014-15	\$81,201,619	222	71.6%	10.48	\$289,216,647	28.08
2015-16	\$91,700,124	227	72.7%	12.93	\$313,459,471	29.25
2016-17	\$110,712,105	231	76.6%	20.73	\$322,724,422	34.31
2017-18	\$134,914,358	237	75.5%	21.86	\$343,342,231	39.29
2018-19	\$68,339,640*	241	51.0%	-49.35	\$366,010,400	18.67
2019-20	\$83,014,932	246	55.7%	21.47	\$389,313,731	21.32

*Base weight change

The consequence of the MOE component is that districts that spend above the amount that is allocated in the first five steps of the model receive additional funds. Since the overall trend is that expenditures are outpacing allocations and also growing faster than inflation, the majority of districts are receiving this supplemental amount in their final allocations, and the amount is increasing each year. The prior analysis in 2016 demonstrated that the maintenance of effort component was providing disproportionately more funds to wealthier districts, presumably because they are more able to raise additional taxpayer funds above the model allocation. That analysis was repeated using FY2020 allocation data as shown in Table 14.

Table 14. Comparing the Distribution of Funds Through the Maintenance of Effort Component in Districts With Varying Poverty Levels

District poverty level	N	Pupils w IEPs	Total MOE (\$Millions)	Avg. MOE adj. per pupil
Lowest 33%	63	11,121	\$36.7	\$3,839
Middle 33%	64	10,894	\$26.2	\$2,421
Highest 33%	63	8,998	\$19.9	\$1,307
<i>Total</i>	<i>190</i>	<i>31,013</i>	<i>\$83.0</i>	<i>\$2,522</i>

Table 14 illustrates the inequity resulting from this expenditure-based element in the funding formula. The poorest third of schools districts received \$1,307 per special education pupil through this adjustment, while the wealthiest third received \$3,839 – nearly three times as much per pupil. This is a major concern and raises the question of whether the model is achieving its goals of adequacy and equity.

Federal IDEA Funding Analysis

The federal government funded SAU special education expenditures to the tune of \$47.6 million in 2017-18, compared to the \$414.0 million in state and local funds. Federal allocations for special education programs under IDEA are determined through block grants to each state. A foundation of funding is provided based on each district's federal allocations from FY1999; In FY99, the federal block grants were distributed to each district based on its' proportional number of special education students. Since 1999, the remaining federal funds are then allocated to eligible SAUs using a formula based 85% on their total enrollment and 15% on their poverty level.³ Because each of these funding criteria (number of special education students, total enrollment, and poverty level) play out differently in Maine schools, and because the proportion of special education students in an SAU may have changed considerably since FY1999 when the foundation levels were set, we sought to investigate the actual funding patterns in the most recent fiscal year.

A brief and exploratory analysis of these federal payments was conducted to determine how these payments were related to SAU characteristics, including total enrollment, special education prevalence rate, and poverty as measured by each SAU's free/reduced lunch eligibility percentage. Correlation analysis, a well-known statistical technique, was used to measure the strength of the relationship between districts federal revenues per special education student for special education and each of the three SAU characteristics. The results are presented in Table 14. Correlation coefficients can range from -1.00 to 1.00. The nearer to -1.00 or 1.00, the stronger the relationship between the characteristic and the SAUs per-pupil

³ Helpful overview of IDEA funding: <https://cifr.wested.org/wp-content/uploads/2017/09/CIFR-QRG-LEA-Allocations.pdf>

federal special education revenues. The nearer to 0.00, the weaker the relationship. Table 14 provides the correlation results.

Table 15. Correlation Between Federal Special Education Funding Per Pupil with Disabilities and Selected SAU Characteristics

SAU Characteristic	Correlation Coefficient	Significance
Total Enrollment	-0.229	p<.001
Free/Reduced Lunch Percentage	-0.096	not sig.
Special Education Prevalence Rate	-0.649	p<.001

The correlation coefficient of -0.229 between total enrollment and per-pupil federal revenue means that smaller SAUs tended to receive more revenue per resident pupil, a negative correlation. The magnitude of 0.229 is relatively weak. The significance level in the rightmost column means that the results are highly statistically significant, in other words, very unlikely to occur by chance. This relationship is explained by the systematic use of total enrollment in distributing funds above the base IDEA level.

The analysis found no significant relationship between federal special education funding and SAU poverty level. A -0.096 correlation coefficient is too close to 0.00 to rule out that it occurred by chance. In other words, no correlation was detected. This was somewhat unexpected, as the federal allocation method does consider poverty levels as a secondary criterion (after total enrollment) for the allocation of funds in excess of the foundation level. One likely explanation is that the weight of the poverty index in the funding calculation is not influential enough to impact the patterns of the allocations, so that no relationship can be discerned amidst the general noise in the data. Given that total enrollment had a weak correlation of 0.229, we would expect the relationship of per pupil funding to poverty to be even lower as it is a smaller weight in the allocation methodology.

Also highly statistically significant is the relationship between per-pupil federal revenues and prevalence rate, -0.649. This is a moderately strong correlation, and was negative—meaning that higher prevalence SAUs received less federal funding per special education student. This negative correlation suggests that total district enrollment now carries more weight in the allocation of federal funds than the number of students with disabilities. Imagine

two districts with similar total enrollment but differing in prevalence of students with disabilities. The negative correlation tells us that the amount of funding per pupil with disabilities is expected to be lower in the district with higher prevalence. In other words, the districts are likely receiving similar levels of **total** funding, and the **per pupil** amount in the district with higher prevalence is smaller because it is divided by a larger number of students with disabilities. This is a change from the pattern that would have been seen in FY1999, when districts received a fixed amount per student with disabilities. (The correlation between prevalence rate and per-pupil funding at that time would have been zero, as per-pupil funding was a preset amount that did not vary from one district to the next.) The fact that the correlation has shifted so much in two decades raises questions about how the change in the federal allocation method has played out over time. The change in the method to incorporate district size and poverty level has had a cumulative effect that apparently favors districts with *lower* proportions of students with special needs. This raises concerns about equity. Further analysis with more than one year of data using may be warranted to investigate whether these effects persist when the relative strength of the different factors are compared with respect to each other (i.e. multiple regression treatment).

The EPS funding model also provides less funding per pupil for districts with high prevalence rates, because only the first 15% of enrolled students receives the full base weight. Districts with rates above 15% receive the lower “high prevalence rate” for each pupil, which lowers their per pupil amount (which is an average). If the federal allocation method has the same built-in effect, it could have a double negative impact on SAUs with high prevalence.

Feasibility of Multiple Weights Funding Model

As described above, the 2016 review of the Special Education component of the EPS funding formula raised concerns about several aspects of the model, particularly: 1) inequities arising as the result of the “maintenance of effort” provision over time; 2) questionable accuracy of the high-cost in-district funding mechanism; and 3) questions about the funding approach for “high prevalence” districts with substantially more than 15% special education students with a lower student weight. The report recommended additional study, including investigation of alternative funding models to replace the existing system.

Initial groundwork for model development was laid through stakeholder interviews with Special Education Directors and school district business managers as part of the 2016 review. As a result of those preliminary conversations as well as a review of the pros and cons of various funding methods, researchers recommended that Maine further investigate the feasibility of moving to a multiple student weight model. This type of model is based on placing students into descriptive tiers that are distinguished by the intensity of their needs. The new system could replace current base weight, prevalence adjustment, high-cost in-district, and/or high-cost out-of-district model steps. With a more refined model of costs that is based on the specific subgroups of students in each district, it should be a goal to eliminate or modify the inequitable “maintenance of effort” provision at the time of implementation.

To further this work in the current review, MEPRI researchers reviewed available research and policy guidance on multiple-weight special education funding systems, and explored the framework of the multiple-weight models in place in other states (particularly Iowa and Georgia). Based on these investigations, we identified two potential sets of criteria for categorizing students into tiers of varying levels of needed services: a system based on the setting in which the student is placed (i.e. regular classroom, resource room, self-contained program, etc.) or a classification system based on the costs of the specific services provided. The pros and cons of each approach were then explored with Maine stakeholders, including MADSEC members, university faculty, business directors, and special educators. The results of these conversations are summarized below.

A tiered funding model provides a way to sort students appropriately into three (or more) categories of students with roughly similar program costs, and thus provide a more adequate level of funding to each based on their level of need. To develop and implement such as system, the following ingredients must be in place:

- An understanding of the factors that drive program costs for each student. These factors will be the basis for assigning students into tiers. As such, there must also be **accurate data** on which factors apply to which students, and a set of **clear and explicit criteria** describing each factor so that districts can accurately place each student in the appropriate tier.
- Detailed expenditure data that can be used to estimate the **costs of the factors** that apply to each tier. We must know how much the costs for Tier 1 differ from those in Tier 2 in order to establish appropriate student weights for each category, and these must be based on valid spending data. In other words, we need a way to isolate expenditures in a way that can be tied to each student group, so that costs per student can be calculated.
- The above systems must be **feasible** for district staff to use. If we do not have ongoing ways for special education and business office staff to collect and report the requested data accurately, the system will be flawed. That often leads to inequities, particularly in smaller districts that have fewer administrative resources and less sophisticated data systems to help manage the work.
- Careful consideration and review of any proposed model changes to identify potential unintended consequences. For example, financial structures should align with, not undermine, the principles of inclusivity and least restrictive environment.
- Data analysis, such as in a future MEPRI review, to confirm the validity of the student and financial data and then calculate student weights (relative to regular instructional spending) for each tier.

Each of the above components is a potentially complex task, and will take district-level cooperation to develop and execute.

Background: Overview of Special Education Program Costs

Based on the multiple discussions with practitioners for both the 2016 report and the current study, the following elements are the largest components of special education costs⁴.

- Special education teachers. These trained educators are the foundation of special education programs, providing instruction and other interventions for eligible students, administrative support for development and monitoring of IEPs, and support for classroom teachers to modify classroom instruction when needed to meet an IEP.
- Educational technicians. These paraprofessionals provide varied supports. Some provide general support to all learners (and to the teacher) in an inclusive classroom setting. Others are assigned specifically to assist one or two individual students, and become experts in the unique and varied needs of the students they support (which may be physical, medical, cognitive, and/or behavioral).
- Special education administrators to oversee the components of the program.
- Specialist services, including occupational therapy, physical therapy, speech therapy, psychological services, audiologists, and sign language interpreters.
- Supplies, materials, technology, and equipment
- Staff support, including professional development
- Tuition payments on behalf of students with special needs who are educated in another district or at a special purpose private school.

The biggest challenge for developing a multiple weight / tiered funding model is in accurately tying the above costs to each tier. Once the criteria for each tier are developed, then the program costs can be assigned in one of two ways: by identifying the specific student to which the cost is associated and then assigning the cost to that student's tier, or by linking the

⁴ *It is to be noted that transportation costs for students with special needs are included in the EPS transportation component, not the EPS special education funding model. However, questions have arisen about the adequacy of that model to support some aspects of special education transportation. For example, conversations about expanding the number of regional programs to improve students' access to services has raised transportation as an obstacle. This is an area for further exploration.*

type of cost to one of the factors associated with an entire tier. If there is no basis for assigning a type of cost to a specific tier, then the typical treatment is to calculate an equivalent amount per each student and distribute the expense proportionally across all tiers. This is how administrative costs are treated in the current model.

Current Availability of Student and Expenditure Data

As noted above, the development of any type of model requires solid data. One fundamental question is: what is the validity and reliability of the existing data that can serve as a foundation for a new model?

Student data

Each year, school districts report certain information to the MDOE on each student with an IEP so that the state can comply with annual federal reporting requirements. In addition to demographic information, both the home and attending districts are reported, as well as the federal disability category with which the student has been identified. The district also sorts students into one “placement” category to characterize how much time the student spends in the regular classroom setting (as compared to a pull-out resource room or self-contained classroom). These data points are thus readily available at the state level and are considered quite reliable. From a feasibility perspective, they are thus good candidates for building a system. However, these are broad categories that may not capture all of the characteristics that may be necessary to group students into tiers that can be associated with certain costs.

As explained in more detail in the discussion above about the high-cost in-district adjustment, the state used to receive copious amounts of data about types and frequency of services received by each individual student with an IEP. Anecdotal reports describe weeks of tedious data collection and entry in order to comply with the requirement, and that oftentimes required arbitrary decisions about how to define costs. This system provided lots of data and made it possible to establish the EPS high-cost in-district component described above. However, the administrative burden and questionable validity of some of the data points eventually led to discontinuing the reporting requirement and reverting to the more minimal level of data needed to comply with federal requirements.

It is likely that any new funding model may require *some* additional level of information about students in each cost tier in order to build and maintain the model. However, based on their feedback, returning to the former system would not be tolerable to already-overburdened practitioners.

Expenditure Data

As noted above, one of the core student data points that is already available is the placement setting of each individual student. The model chart of accounts also asks districts to report their program costs in a way that is segregated by the placement setting.

Table 16. Program Codes Used for Reporting Special Education Expenditures
(Accounting Handbook Descriptors)

Program Code & Title	Description (Excerpt)
2100: Regular Classroom	“Instruction provided to special program students in a regular classroom environment.”
2200: Resource Class Placement	“... student receives instruction and supportive services OUTSIDE THE REGULAR CLASSROOM for 60 percent or less of the school day and at least 21 percent of the school day. This may include students with disabilities placed in resource rooms with special education/supportive services provided within the resource room, or resource rooms with part-time instruction in a regular class. [...]”
2300: Self-Contained Class Placement	“... student with a moderate or severe disability receives special education and supportive services OUTSIDE THE REGULAR CLASSROOM for more than 60 percent of the school day in a self-contained program.” According to the model chart of accounts, this code is also used for tuition payments.
2400: Homebound/Hospital	“Instruction provided by a teacher or tutor to special program students in hospital or home environments.”
2500: Administration	“Costs for the special programs office that are not readily attributable to an individual special program, such as costs associated with the Director of Special Programs.”
2800: Other programs	“Activities not delineated in previous 2000 series program codes, such as costs for alternative therapies (i.e. therapeutic swimming and horseback riding). Use with function 2190 to indicate costs for Adaptive P/E.” The model chart of accounts uses this code for social work, counseling, health, PT, OT, speech, etc.

These program codes were used to generate the ratios of relative per-pupil spending by student placement that are summarized in Tables 11 and 11a above. It would appear at first glance that the availability of both student data and expenditure data categorized by placement setting means that this factor is ripe for use as the foundation for a tiered system. However, a closer look into the expenditures by program for regular classroom, resource room, and self-contained placements in each district reveals that there is wide variety in districts' accounting practices. Looking only at these three program categories, 37% of all districts reported expenditures in only one of the three categories. The total spending of these districts accounted for only 14% of the spending, which suggests that the districts are smaller on average. Some of them may have such small programs that all of their students are coded in one type of placement setting, and thus it would be appropriate to code all related expenditures in that one program code. However, six of these districts spent over \$1M in special education in FY2018 and reported them all under one placement setting. One district coded all of their expenditures as regular classroom setting, one used only the self-contained classroom category, and the remaining four reported all of these costs as resource room. Another 44% of districts (representing 47% of the state expenditures in these three program categories) coded all of their spending in two of the three program settings, and only 19% used all three program codes in their accounting. These 19% represented 39% of all Maine spending in these categories in FY18.

In order to build a system that uses spending in each program setting as the basis for estimating costs per pupil, more robust data is needed. The data must represent actual spending patterns across the wide variety of districts across the state in order to characterize spending in different program configurations. The fact that so many districts do not have expenditures in all three program groups means that they would not have data to inform the appropriate per pupil costs in each setting. It also implies that the data that *are* available to calculate costs in each program setting are not accurate, and include costs that should be attributed to a different setting.

This is not suitable data for developing a cost model. Before work can begin to calculate per-pupil spending, we must first have reliable data by student placement setting. The first step

in this process is to understand why districts are not currently reporting costs in each category, and the second step is to clarify the guidance to districts about how to determine the appropriate program code for a given special education expenditure. This may require some changes if there are barriers that prevent districts from using the program codes as designed; if districts are not able to align their program realities to the definitions, then their data will not be accurate and will introduce error to the calculations.

As part of our stakeholder feedback process, MEPRI researchers interviewed and polled practitioners to understand the challenges with reporting different types of expenditures by the program codes. The results of their feedback are detailed in Appendix A. These were the general findings from their feedback:

- The cost category for students in regular classroom placements presents a challenge, because this group includes both the lowest cost students (those that need only occasional pull-out services) and some very high cost students (those learning in an inclusive regular classroom setting with provision of additional adult support). It was recommended to create separate tiers for high-cost students who are placed in a regular classroom.
- There was a general concern that having funding tiers that provide more resources for students in self-contained classrooms might create a financial incentive for districts to place students in more-restrictive settings in order to increase their funding allocations. This could result in an unintended consequence of undermining the core principles of inclusivity and prioritizing the Least Restrictive Environment (LRE). Care must be given to mitigating this potential harm. This could be done through funding policy by finding a way to recognize and financially acknowledge districts who place students in LRE. For example, the weight for high-need students in regular classroom placements could be set at the same level as the self-contained classroom weight (or higher if warranted). Clear and explicit guidance will be needed, and it may also be necessary to increase the level or frequency of monitoring of district practices for identifying students with disabilities.

- It would be feasible for districts to categorize special education teachers based on the placement of students that they primarily serve (with high-cost regular classroom students as a separate group); about half of districts polled already do so. It would be similarly feasible to isolate costs for specialized services and consultants.
- Categorization of educational technicians is more challenging, with about one in five districts saying it would be difficult or impossible. This needs to be better understood.
- Supplies, equipment, and assistive technology would be feasible to report by cost.
- Professional development costs (including travel) are more difficult to assign to placement settings. It is recommended to treat professional development in the same way as administrative costs; these can be distributed proportionally across all placement settings.
- Practitioners reported ongoing challenges with providing interventions through Multi-Tiered Systems of Support (MTSS) programs as a way to meet student need in the general classroom and avoid the costs and potential stigma associated with special education identification. However, these costs cannot be expensed as special education. Stakeholders expressed interest in a “Tier 0” for early intervention services as a long-term cost-cutting measure.

Overall, this feedback from practitioners provided much encouragement that it would be generally feasible to develop a tiered system of funding based on four categories of students: regular classroom placement, inclusive classroom with additional adult support, resource room, and self-contained classroom. As a first step, districts should increase their use of the existing program cost categories to segregate expenditures based on placement setting. This may require additional guidance and support to financial managers. In that process, it would be helpful to clarify the appropriate coding for tuition payments for out-of-district placements, as there was variability in treatment of these expenses. In the meantime, discussions can take place to better understand the challenges for assigning educational technicians to program codes, and to develop a response to improve accuracy of coding.

Summary of EPS Special Education Recommendations

The overarching recommendation from this review is that the current six-step special education funding model be replaced in the future with a multiple-weight model. Of the current six steps, three have major validity concerns: the base weight and prevalence weight are based on state averages and are not a good fit for districts with atypical student patterns, and the maintenance of effort component has become inequitable over time.

A multiple-weight model that is based on student placement setting (with some modifications) has the advantage of building from existing data systems, both in the student data collection and financial chart of accounts. While some modifications and improvements would be necessary, the feasibility analysis so far indicates no insurmountable technical obstacles. The largest potential problem with the model is one of principle: it is unappealing to develop a system that, by its nature, creates an unintended financial incentive for districts to place students in more restrictive settings. Care must be taken in the design and implementation process to mitigate these concerns and ensure they are outweighed by the overall benefits to adequacy and equity in providing for students' needs.

Further development of a multiple-weights model is not guaranteed. It would first require a decision that the move is a good idea and thus additional work is justified. Because the current available expenditure data by program code (i.e. student placement setting) are not robust, it would then take time to improve the accuracy of districts' financial data reporting with respect to the settings in which costs occur. This will require guidance and support based on the existing placement codes, as well as the creation of new mechanisms to identify costs of high-need students in regular classroom placements.

Given that a multiple weights model is not a short-term solution, it may be advisable to update some elements of the current model as describe in the analyses above to improve its fit and thus ability to provide adequate funding. Recommended options for updates are summarized in Table 17.

Table 17. Summary of EPS Updated Weight Recommendations

Component	Current Weight or Process	Updated Weight or Process
Base Weight	1.5 (up to 15% prevalence)	1.4 (up to 17.7% prevalence)
Prevalence Adjustment	0.35 (beyond 15% prevalence)	0.25 (beyond 17.7% prevalence)
Small Size Adjustment	0.25, applied to Resident SAU	0.37, Restrict to SAUs that operate schools
High Cost In-District	Matrix of adjustments based on costs estimated for students with certain disabilities and placement settings, inflated from baseline year.	No short-term solutions have been identified. Multiple weight model would replace this element.
High Cost Out-of-District	Based on actual expenditures above 4x	Consider partial reimbursement model, if also pursued for high-cost in-district.
Maintenance of Effort	Adjustment to meet 100% of prior approved spending	Consider partial funding rate, block grants, or removal with expansion of hardship funds.

References

The Connecticut School Finance Project (March 2016). "Improving How Connecticut Funds Special Education: An Analysis of Special Education Finance Systems Across the Country and Recommendations for Best Practices." Retrieved May 21, 2016, from <http://www.CTschoolfinance.org/>.

Maintenance of Effort From <https://www.regulations.gov/#!documentDetail;D=ED-2012-OSERS-0020-0309>)

Appendix A. Practitioner Feedback on Feasibility of Segregating Costs by Student Placement Setting

Based on preliminary interviews with special education directors and finance managers, MEPRI researchers developed a poll to solicit feedback from a broader range of stakeholders about the feasibility of tying various types of special education costs to the students receiving services. The poll was administered to two groups of participants at the Fall 2019 MADSEC conference in South Portland, Maine. A similar feedback session for school district financial managers is planned for March 2020. The results below are a first step in understanding the nature of challenges in isolating expenditures for different categories of students; additional work is needed to develop policies and guidance around expenditure reporting.

The poll consisted of two general questions and one multi-part question. The first session was attended by approximately 50 participants, and the second session was attended by about 35 individuals representing a cross section of special educators, administrators, advocates, parents, and managers. The polling software used in the presentation did not track the actual number of respondents to each question; thus the data below are to be treated as exploratory. The percentages provided may or may not represent the views of all stakeholders, or even of those stakeholders who were present at each session.

Q1: “I support the concept of five weights for special education students (regular classroom, resource room, self-contained classroom, students with additional adult support regardless of placement setting, and out of district/private placement).”

	Session 1	Session 2
Yes	77%	60%
No	5%	0%
Unsure	18%	40%

These responses are encouraging, as the proportion of respondents who were against the concept was quite low (0% to 5%). However, the proportion of unsure responses indicates that additional work is needed to build a potential system, provide clear details on how it would work, and gain more concrete and specific feedback on feasibility.

Q2: “I feel there should be different weights for elementary vs secondary.”

Session 1: 59% yes, 41% no

Session 2: 100% yes, 0% no

The results of this question are more mixed. It will be important to provide empirical analysis about the differences in costs between elementary and secondary students in order to inform the value / necessity of calculating different weights based on grade level.

Q3. Rating of difficulty of categorizing specific types of expenditures. 4 options provided:

- A. “Yes, we already categorize these expenditures by student placement”
- B. “This would require changing how we track things, but it seems feasible”
- C. “This would be difficult or impossible to categorize by student placement”
- D. “I don’t know”

Cost	Session	A. Already a practice	B. Feasible change	C. Difficult or impossible	D. Don’t know
Special education teacher salaries and benefits	1	47%	47%	7%	0%
	2	100%	0%	0%	0%
Ed tech salaries and benefits	1	47%	32%	16%	5%
	2	43%	29%	29%	0%
Related Services Personnel (OT, PT, SLP, etc.)	1	17%	72%	6%	6%
	2	17%	83%	0%	0%
Consultation (Psych, BCBA, TVI, TOD, Etc.)	1	0%	94%	6%	0%
	2	0%	100%	0%	0%
Instructional supplies	1	33%	61%	6%	0%
	2	100%	0%	0%	0%
Professional development	1	11%	67%	22%	0%
	2	33%	67%	0%	0%
Employee travel	1	6%	76%	18%	0%
	2	17%	50%	33%	0%
Assistive technology / equipment	1	69%	31%	0%	0%
	2	100%	0%	0%	0%

The areas highlighted in grey are those with the higher proportions of respondents indicating they would struggle to assign these expenditures to specific categories of students.