

Review of Essential Programs and Services Components

**Benefits Percentages**

Maine Education Policy Research Institute

James Sloan

Amy Johnson

October 2018

Addendum April 2019

## **Benefits Percentages EPS Component Review**

### **Background**

The Essential Programs and Services (EPS) funding formula is designed to estimate the minimum amount of money a school district needs to have in order to provide the programs and services to enable all students have an equitable opportunity to achieve the Maine Learning Results standards. The model for determining this “total allocation” amount includes recommended staff-to-student ratios, per-pupil amounts for supplies and equipment, specialized services (e.g., professional development, student assessment, technology, instructional leadership support, co-curricular and extra-curricular student learning), and district services (e.g., transportation, facilities management). The total amount is largely driven by district enrollment, which is adjusted for circumstances that have been determined to increase costs, such as specialized populations including students with limited English proficiency, economically disadvantaged students (defined as students eligible for free or reduced price lunch) and students with special needs, as well as small school size and remote location. The EPS formula also adjusts personnel costs for differences in staff experience and education and regional differences in the cost of living.

Personnel costs are the largest component of school district expenditures, and total school employee compensation is comprised of a combination of salaries and the cost of employee benefits. In the EPS formula, the allocation for employee benefits is calculated as a proportion of salary. Different ratios are used for different categories of staff, because the relative costs of benefits are higher for lower-wage employees. The EPS model uses four categories of school staff: classroom teachers, guidance/counseling staff, school administrators, and clerical support staff. The original EPS benefits ratios have been in place since the initial implementation of the formula in 2005 and have not been updated.

### *Size and scope of benefits expenditures*

Employee benefits are among the largest operating expenditure categories for Maine school districts (SAUs) after salaries and wages. Employee compensation, which includes both pay and benefits, is the largest expenditure of Maine SAUs, representing 74% of SAU operating expenditure in Fiscal Year 2015-16 (\$1.7 billion out of total operating expenditure of \$2.3 billion). Employee benefits alone were 17% of operating expenditure.

Since we know the respective amounts spent on pay and benefits, the statewide benefits ratio for Maine SAUs can be calculated as the total benefits expenditure divided by salaries and wages. In Fiscal Year 2015-16 SAUs spent a total of \$396 million on general fund employee benefits, compared to \$1.3 billion on salaries and wages, which means that SAUs spent 30% as much on benefits as they spent on pay. In other words, employee benefits constituted 23% of total compensation (salary and benefits).

The EPS Benefits Percentages that are the main subject of this report are used directly in the School Staff Benefits component of EPS. This funding allocation appears on page 1 of each SAU's annual "ED 279" funding report. Benefits included are group insurance (health, life, dental, etc.), Social Security/Medicare, unemployment compensation, and workers' compensation. Tuition reimbursement and professional development are also included in the calculation of benefits percentages for clerical personnel. However, tuition and professional development costs are not included as employee benefits for instructional personnel (teachers, education technicians, library staff, guidance, school administrators), as there is a separate Professional Development component to fund these expenditures.

The EPS Benefits Percentages are used in several parts of the EPS cost model. Primarily they are applied to the school staff salaries calculated according to the recommended school staff ratios (ED 279 Sec. I.C. Computation of Benefits). Unlike salaries, benefits are not subject to the regional adjustment (Sec. 1.E.). The same percentages also influence other EPS elements, including the calculation of the Isolated Small School Adjustment (Sec 2.E.) as well as the Special Education and CTE cost allocations (Sec. 3.A. lines 2; Sec. 5.B. line 6).

Table 1. How Employee Benefits are Funded within EPS

<b>Benefit</b>	<b>ED 279 location</b>	<b>EPS Component / Funding Mechanism (Allocation Method)</b>
School Staff Benefits	Sec. 1.C.	<i>EPS Benefits Percentages</i>
Instructional staff tuition reimbursement	Sec. 1.D. line 3	Professional Development Per-Pupil Amount
Teacher Retirement Amount	Sec. 3.B.	Normalized Cost (Retirement Benefits Contribution)
District administrative staff benefits	Sec. 1.D. line 6	System Administration Per-Pupil Amount
Operation & Maintenance staff benefits	Sec. 1.D. line 7	Operation & Maintenance Per-Pupil Amount
Additional benefits costs for instructional and facilities staff in isolated communities	Sec. 2.E. lines 1 & 2	Isolated Small School Adjustment--Additional FTE teachers (including benefits) and increased O&M amount
Gifted and Talented program staff benefits	Sec. 3.A. line 1	Gifted & Talented allocation (based on prior expenditures)
Career & Technical Education staff benefits	Sec. 3.A. line 2	CTE Cost Model ( <i>EPS Benefits Percentages</i> applied)
Special Education staff benefits	Sec. 3.A. line 3	Special Education Cost Model ( <i>EPS Benefits Percentages</i> applied)
Transportation Operating staff benefits	Sec. 3.A. line 4	Transportation Cost Model (includes benefits)

Note: The regional adjustment is not applied to school staff benefits. Benefits are included in SAU EPS rates from ED 279 Page 1 and, therefore, apply to costs for basic pupil counts (Sec. 2.B.), weighted counts (Sec. 2.C.), and targeted funds for 4YO/Pre-K and K-2 Pupils (Sec. 2.D. lines 7 & 8).

Funding for benefits of other types of staff (e.g. district-level staff and certain non-instructional staff) are included in the respective calculations of other EPS model elements. In these other parts of the EPS cost model, funding covers benefits expenditures differently. In some components of EPS, including System Administration and Operation & Maintenance (ED279 Sec. 1.D. lines 6 & 7), a per-pupil amount is allocated, which is intended to provide resources for all types of expenditure, including salaries and benefits. However, the different types of expenditures for the function are not listed or computed separately.

The professional development component is also a per pupil amount (Sec. 1.D. line 3). One of the items covered by the per-pupil amount is tuition reimbursement for school instructional personnel. The amounts of the tuition reimbursement expenditures are shown in

Table 2. Retirement expenditures for school instructional staff are also shown in Table 2. They are funded by an allocation on a separate line of the ED 279 (Sec. 3.B.) according to the normalized cost for each SAU from the Maine Public Employees Retirement System.

Table 2. School Staff Benefits Included in Components Other than Benefits Percentages (in \$millions)

<b>EPS Staff Grouping</b>	<b>Tuition Reimbursement</b>	<b>Retirement Contribution</b>
Teachers, Guidance/Counseling, Librarians, and Health Staff	\$3.9	\$23.4
Educational Technicians and Library/Media Assistants	\$0.3	\$2.6
School Administrative Staff	\$0.3	\$1.8

### Updated Ratios

MEPRI computed updated benefits percentages for school staff categories using Fiscal Year 2015-16 data. Results are shown in Table 3.

Table 3. Salary, Benefits, and Benefits Percentages by EPS Staff Grouping, FY 2016 (\$millions)

<b>EPS Staff Grouping</b>	<b>Salary</b>	<b>Benefits</b>	<b>Percentage</b>
Teachers, Guidance/Counseling, Librarians, and Health Staff	\$803	\$202	25%
Educational Technicians and Library/Media Assistants	\$103	\$39	38%
Clerical Staff	\$32	\$12	39%
School Administrative Staff	\$63	\$13	20%
Total EPS School Staff (excludes system functions)	\$1,002	\$266	27%

Note: The benefits amount for clerical staff includes \$0.6 million in retirement contributions and \$18 thousand in tuition reimbursement, which are excluded for other staff types as they are funded via other EPS components (see Table 2).

Table 4 estimates the approximate impact on total allocations if the EPS benefits rates were updated to the FY2016 ratios, and also includes the percentages from the prior MEPRI review based on 2008-09 data. The total EPS school staff difference of \$58 million is based on

actual 2016 statewide school staffing levels and salaries rather than EPS recommended staffing levels, salaries, pupil weights, and adjustments. It may be a good preliminary estimate of the difference in total allocation that would occur if updated benefits percentages were adopted within the EPS funding model. However, the exact difference in allocation will be affected by the EPS recommended personnel ratios, salary matrices, increases for inflation, and other factors. A \$26 million change in the local required share in FY 2016 would have translated into a difference of 0.17 mills in the required property tax mill rate for education (\$26 million allocation compared to \$157 billion valuation).

Table 4. Comparison of EPS Benefits Percentages to FY16 Expenditure Percentages (\$millions)

<b>EPS Staff Grouping</b>	<b>Current EPS Benefits Percentage</b>	<b>2008-09 Benefits Percentage</b>	<b>2015-16 Benefits Percentage</b>	<b>Increase from Current</b>	<b>\$millions Difference</b>
Teachers, Guidance/Counselors Librarians, and Health Staff	19%	22%	25%	6%	\$49
Educational Technicians and Library/Media Assistants	36%	33%	38%	2%	\$2
Clerical Staff	29%	32%	39%	10%	\$3
School Administrative Staff	14%	19%	20%	6%	\$4
<b>Total EPS School Staff</b>	<b>21%</b>	<b>23%</b>	<b>27%</b>	<b>6%</b>	<b>\$58</b>
				55% state:	\$32
				45% local:	\$26

In summary, spending on staff benefits as a percentage of salaries has increased since the initial ratios were implemented in the EPS model. The following section further discusses this trend.

#### *Further Analysis of the Change in Teacher Benefits Percentage*

Classroom teachers comprise the largest single position type within the EPS school staff categories. Teacher salaries (\$744 million) were 74% of the total EPS school staff salaries of \$1 billion in Fiscal Year 2015-16. Teacher benefits (\$188 million) were 71% of EPS school staff benefits. The benefits percentage for classroom teachers alone was 25%, the same as the group including teachers, guidance, librarians, and health. The observed benefits percentage for teachers had changed significantly since a previous MEPRI report using Fiscal Year 2007-08

data, from 22% to 25%, which is an increase of 3% of salaries or 13% of the previous percentage. To explain the change, MEPRI researchers analyzed changes in total salary and benefits expenditure. As shown in Table 5, total teacher benefits expenditure increased by 20% from FY08 to FY16, whereas total salaries increased by only 6%, which yielded the 13% increase in the benefits percentage ( $1.20 \div 1.06 = 1.13$ ).

Table 5. Teacher Salary and Benefits Changes (*\$millions*)

	FY 2008	FY 2016	change
Benefits Expenditure	\$157	\$188	+20%
Salary Expenditure	\$703	\$744	+6%
Benefits Percentage	22%	25%	+13%

To further explore the changes in teacher salary and benefits expenditure, MEPRI examined the changes in average per-teacher salaries and benefits expenditure, and the number of teachers employed. Full-Time Equivalent (FTE) teacher counts and average full-time teacher salaries were computed using the human resource data provided by SAUs to the state. In an FTE teacher count, each part-time teacher position counts as part of a full-time teacher. For example, a half-time teacher counts as 0.5 FTE teachers. Average teacher benefits amounts were calculated as total benefits expenditure divided by the FTE teacher count.

As Table 6 illustrates, the number of FTE teachers in Maine decreased by 9% between FY 2008 and FY 2016. This is consistent with known trends for declining enrollments and school reorganizations, particularly in the more rural areas of the state. Meanwhile, the average teacher salary saw a 16% increase. However, the amount paid in benefits per FTE teacher increased by 32%. This, too, is consistent with state and national trends for increasing benefits costs, primarily driven by rising costs of health insurance.

Table 6. Change in FTE Teacher Counts and Average Salaries and Benefits

	FY 2008	FY 2016	Change
FTE Teachers	17,134	15,524	-9%
Average FT Teacher Salary	\$43,058	\$49,871	+16%
Average Teacher Benefits	\$9,176	\$12,121	+32%

The 16% increase in teacher salaries is greater than inflation when compared to cumulative inflation of 10% between July 2008 and July 2016 according to the Consumer Price Index. This cannot be explained by an increase in the average experience of teachers, as the mean years of experience for teachers decreased by more than a year and a half, from 16.7 years to 15.1 years, between 2008 and 2016. One potential explanation is that the FTE teacher positions eliminations between FY08 and FY16 occurred disproportionately in rural areas of the state where student enrollments are declining. These areas also typically have lower-than-average teacher salaries; thus when these positions were eliminated, the average salary of the remaining teachers increased. However, additional analysis would be necessary to bolster that supposition.

### **Conclusion**

In summary, the compensation patterns in Maine have changed since the inception of the EPS funding formula. The cost of providing benefits to public school staff has increased relative to the cost of salaries. This trend has been consistent and is not likely to be reversed based on state and national trends for rising costs of benefits including health care insurance. This analysis suggests that the benefits ratios in the formula should be increased to more accurately reflect the funding level that school districts need to compensate their staff.



## Addendum, April 2019

In early 2019, several bills were introduced during the 129<sup>th</sup> Maine Legislative Session to increase public teacher salaries. In mid-March a majority of members of the Committee on Education and Cultural Affairs voted affirmatively on L.D. 898 “An Act to Provide for a Professional Wage and Support to New Educators,” which would raise the minimum teacher salary to \$40,000. The bill has not yet been further considered by the full legislature at the time of writing.

In analysis performed by MEPRI for the salary matrix review, it was estimated that the increase in cost to raise teacher salaries would be at least \$10.5 million. If teacher salaries are raised, the cost of benefits would also likely increase somewhat because certain benefits (i.e. retirement) are proportional to salary. However, other benefits, such as health insurance, are not directly related to salary and would not be expected to increase as a direct result of the new minimum salary. Thus we would expect the overall ratio of benefits to salary to decrease, as salaries would likely increase proportionally more than benefits for the affected individuals.

To estimate the potential magnitude of the policy’s impact on teacher benefit ratios (if enacted) MEPRI completed additional analysis in April 2019. As a first step, the benefit ratios were recalculated based on FY2018 data in order to have numbers that are directly comparable to the figures used to estimate the increase in costs due to a higher minimum teacher salary. Table A1 provides the updated salary and benefit totals based on FY2018 data using the same methodology as in the full initial report.

Table A1. Salary, Benefits, and Benefits Percentages by EPS Staff Grouping, **FY 2018**  
(\$millions)

EPS Staff Grouping	Salary	Benefits	Percentage
Teachers, Guidance/Counseling, Librarians, and Health Staff	\$831	\$246	29.6%
Educational Technicians and Library/Media Assistants	\$115	\$49	43.0%
Clerical Staff	\$32	\$13	39.9%
School Administrative Staff	\$66	\$16	24.6%
Total EPS School Staff (excludes system functions)	\$1,045	\$325	31.1%

Note: The benefits amount for clerical staff includes \$0.7 million in retirement contributions and less than \$5 thousand in tuition reimbursement, which are excluded for other staff types.

As Table A1 illustrates, benefit ratios have continued to increase since FY2016, underscoring the importance of updating this component of the EPS formula.

As a second step, teacher data were isolated from the expenditures to estimate the impact of an increase in minimum salary on the benefits ratio. For this exercise, we added an estimate of \$10.5 million in additional salary but did not adjust the cost of benefits. It was not feasible to quickly and accurately assess how benefit costs may be impacted by rising salaries. Thus this analysis can be seen as only a rough estimate, intended primarily to evaluate the scope of the maximum impact on the benefits ratio. The results are depicted in Table A2.

Table A2. Salary, Benefits, and Benefits Percentages for EPS Teachers, **FY 2018**  
(\$millions)

<b>EPS Staff Grouping</b>	<b>Salary</b>	<b>Benefits</b>	<b>Percentage</b>
Teachers only, FY2018 Actual	\$767.7	\$228.8	29.8%
Teachers only, FY2018 Estimated if \$40,000 minimum salary were in place	\$778.2	\$228.8	29.4%

Table A2 demonstrates two points. First, the actual benefits ratio for teachers only is a close match for the benefits ratio for their EPS position category (29.8% for teachers vs. 29.6% for the category as a whole including guidance, librarians, and health staff). This is because teachers comprise the majority of their category and thus heavily influence the group. Secondly, the impact on the benefits ratio is small (0.4%) even using the conservative assumptions of zero change in benefits and only a \$10.5 million increase in salaries (using methodology described in the salary matrix review).

Thus it is the conclusion of MEPRI researchers that it would be appropriate to update the benefits ratios to levels that are more reflective of actual benefit costs, using either the initial analysis based on FY2016 data or the revised figures from FY2018. Subsequent reviews of the EPS formula will capture the impacts of increasing the minimum teacher salary using actual data rather than simulated estimates, and will inform further refinements to the model.