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**EPS Component Report of Findings:
Benefit Percentages**

**Report to
Maine Department of Education**

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Essential Programs and Services Component Review Report of Findings: School Staff Benefits Percentages

Background

This report presents the analysis and review of the school staff benefits percentages used in the Maine Essential Programs and Services (EPS) funding formula. The EPS funding formula is designed to estimate an appropriate amount of funds a school district needs to provide the programs and services necessary to ensure that all students are provided adequate opportunities to achieve the Maine Learning Results standards. The estimated amount that a district should need to spend is based on student enrollment and student-staff ratios set by the Maine DOE and include amounts for a variety of services (per pupil amounts for supplies and equipment, specialized services such as professional development, student assessment, instructional leadership support, co-curricular and extra-curricular student learning, and district services (e.g., transportation, facilities management). Adjustments are made to the allocation based on circumstances determined to increase costs, including the size of specialized student populations (e.g., students with limited English proficiency, economically disadvantaged students and students with special needs) as well as school size, geographic location and cost of living differences. The EPS formula also adjusts personnel costs for differences in staff experience and education and regional differences in the salaries and the cost of living.

School employee compensation, comprised of salaries and the cost of employee benefits, including group insurance (health, life, dental, etc.), Social Security/Medicare, unemployment compensation, and workers' compensation, make up the bulk of school district expenditures. Benefit expenditures are paid by the school administrative unit on behalf of employees, meaning they are not paid directly to the employee as part of their gross salary but are in addition to that amount. 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 differ when calculated as a percentage of salaries. The EPS model uses four categories of school staff: classroom teachers, guidance/counseling staff, school administrators, and clerical support staff. Although the benefits ratios have been reviewed several times in the past as part of the scheduled EPS Component Review process, the original EPS benefits ratios have been in place since the initial implementation of the formula in 2005 and have not been updated in the formula.

In this component review we have updated benefit percentages using data from fiscal year 2018-19. Benefit percentages include all school personnel benefits, except tuition reimbursement for

instructional staff, which are included in the Professional Development component of EPS. Note: Employee benefits costs of system personnel are included in their respective components (school administration, student transportation, operation and maintenance of plant, special education, or CTE). In addition to updating benefit percentages for EPS school staff, we examined benefit percentage changes over time and estimated the cost of updating current EPS benefit percentages. Because teacher compensation is the largest component of school district expenditures, we also took a closer look at changes over time in teacher benefit and salary expenditures and the teacher benefit percentages.

Size and scope of benefits expenditures

Employee benefits are one of the largest operating expenditure categories for Maine school districts after salaries and wages. Employee compensation, which includes both salaries and benefits, is the largest expenditure of Maine SAUs. Among regular public school districts across Maine (excluding public charters and specialized schools) employee compensation accounted for \$1.9 billion out of the total operating expenditure of \$2.6 billion, which represented 73% of SAU operating expenditures in FY 2019. Employee benefits alone were 17% of the total operating expenditure of \$2.6 billion.

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 reimbursement and retirement costs are not included as employee benefits for instructional personnel (teachers, education technicians, library staff, guidance, school administrators), as there is a separate EPS 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. Unlike salaries, benefits are not subject to the regional adjustment. The same percentages also influence other EPS components, including the calculation of the Isolated Small School Adjustment as well as the Special Education and CTE cost allocations. A detailed explanation of the places within the EPS model that Benefit Percentages are used, may be found in a previous MEPRI benefit percentages report by Johnson and Sloan (2019).¹ The Johnson and Sloan report also details how funding for benefits paid to other

¹ [EPS Reports and Presentations | Department of Education \(maine.gov\)](#)

types of staff (e.g. district-level staff and certain non-instructional staff) are included in separate calculations of other EPS model elements.

As described above, tuition reimbursement and professional development costs are not included as employee benefits for instructional personnel (teachers, education technicians, library staff, guidance, school administrators). Instead, they are funded in a separate Professional Development component as a per pupil amount (EPS 279 Sec. 1.D. line 3). Retirement expenditures for school instructional staff are also not included in the Benefit Percentage. 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. The amounts of the tuition reimbursement and retirement expenditures for FY2019 are shown below in Table 1.

Table 1: School Staff Benefits Included in Other EPS Components (in \$ millions), FY 2018-19

	Professional Development Tuition Reimbursement	Retirement Contribution
Teachers, Guidance/Counseling, Librarians, and Health Staff	\$4.4	\$30.1
Educational Technicians and Library/Media Assistants	\$0.5	\$3.9
School Administrative Staff	\$0.3	\$2.3

*Note: Private schools, public charters and specialty schools not included.

Updated Ratios

MEPRI computed updated benefits percentages for school staff categories using Fiscal Year 2018-19 SAU expenditure data. Results are shown below in Table 2. The percentages are calculated by determining the ratio of the benefits to the total salaries.

Table 2. Salary, Benefits, and Benefits Percentages by EPS Staff Grouping, FY 2019 (\$millions)

	Salary	Benefits	Percentage
Teachers, Guidance/Counseling, Librarians, and Health Staff	\$860.9	\$225.1	26%
Educational Technicians and Library/Media Assistants	\$124.9	\$49.7	40%
Clerical Staff	\$34.0	\$13.6	40%
School Administrative Staff	\$68.5	\$14.4	21%
Total EPS School Staff (excludes system functions)	\$1,088.3	\$302.8	28%
Note: The benefits amount for clerical staff includes \$0.7 million in retirement contributions and \$17 thousand in tuition reimbursement, which are excluded for other staff types as they are funded via other EPS components (see Table 1).			

*Note: Private schools, public charters and specialty schools not included.

Table 3 includes the percentages from the original EPS model, which are also the current rates used in calculating EPS cost components each year. Also included in the table are the updated rates from previous MEPRI analyses as part of the ongoing 3-year review of EPS components, as well as the an estimate of the approximate impact on total allocations if the EPS benefits rates, established in 2005, were updated to the FY2019 ratios. The total EPS school staff difference of \$75 million is based on actual 2016 statewide school staffing levels and salaries rather than EPS recommended staffing levels, salaries, pupil weights, and adjustments. It is used as a 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.

Table 3. Comparison of EPS Benefits Percentages to FY19 Expenditure Percentages (\$millions)

	Current EPS Benefits % (2005-06)	2008-09	2015-16	2018-19	Proposed Increase (Current to FY19)	Difference (\$millions)
Teachers, Guidance/Counseling, Librarians, and Health Staff	19%	22%	25%	26%	7%	\$60.3
Educational Technicians and Library/Media Assistants	36%	33%	38%	40%	4%	\$5.0
Clerical Staff	29%	32%	39%	40%	11%	\$7.5
School Administrative Staff	14%	19%	20%	21%	7%	\$2.4
Total EPS School Staff	21%	23%	27%	28%	7%	\$75.2
<i>Total State Share</i>					<i>55% state</i>	<i>\$41.4</i>
<i>Total Local share</i>					<i>45% local</i>	<i>\$33.8</i>

*Note: Private schools, public charters and specialty schools not included.

In summary, spending on staff benefits as a percentage of salaries has continued to increase since the initial ratios were implemented in the EPS model, but the percentages in the EPS model have not changed from the original 2005-06 EPS rates. This raises concerns about the adequacy of the model allocations. 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 - \$794 million in FY2019 - were 73% of the total EPS school staff salaries of \$1,088 million. Teacher benefits (\$209 million) were 69% of total EPS school staff benefits. The benefits percentage for classroom teachers alone was 26%, the same as the group including teachers, guidance, librarians, and health staff.

The observed benefits percentage for teachers changed from 25% to 26% between FY2016 and FY2019, an increase of 1% of salaries or 4% from the FY16 updated rates. To explain the change, we analyzed changes in total salary and benefits expenditure. As shown in Table 4, total teacher benefits expenditure increased by 11% from FY16 to FY19 and total salaries increased by 7%, which yielded the 4% increase in the benefits percentage ($1.11 \div 1.07 = 1.04$).

Table 4: Teacher Salary and Benefit Changes (\$ millions)

	FY2016	FY2019	Change FY2016 to FY2019
Benefit expenditures	\$188	\$209	+11%
Salary Expenditures	\$744	\$794	+7%
Benefits Percentage	25%	26%	+4%

*Note: Private schools, public charters and specialty schools not included.

To further explore the changes in teacher salary and benefits expenditure, we next 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 staff 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 reported in Table 5, the number of FTE teachers in Maine decreased by 9% in the three years between FY 2016 and FY 2019, the same rate of decrease that occurred in 8 years between FY 2008 and FY 2016, as reported in the earlier MEPRI benefits percentages report (see Johnson and Sloan, 2019).

Table 5. Change in FTE Teacher Counts and Average Salaries and Benefits

	FY 2016	FY 2019	Change
FTE Teacher count	15,524	14,107	-9%
Average FT Teacher Salary	\$49,871	\$54,116	+9%
Average Teacher Benefits	\$12,121	\$14,815	+22%

Note: FTE count includes regular classroom, special education, ELL and G&T teachers as well as literacy specialists; excludes long-term substitutes. Average FT salary includes teachers who are FTE=1 and whose reported earnings are at least \$25,000. Private schools, public charters and specialty schools not included.

Declines in teacher FTE are consistent with declining enrollments and school reorganizations. However, the statewide decline in publicly funded student counts between FY2016 and FY2019 was only 0.7% (181,742 to 180,472²), significantly smaller than the 9% drop in teacher FTE counts. Given that there are approximately 16 students per teacher, it was anticipated that enrollment drops would be larger than declines in teacher FTE counts. The difference may reflect teacher retirement and recruitment shortages (Morris and Johnson, 2018).

² see <https://www.maine.gov/doe/data-reporting/reporting/warehouse/enrollment>

Meanwhile, the average teacher salary saw a 9% increase while the amount paid in benefits per FTE teacher increased by 22%. This is consistent with state and national trends for increasing benefits costs, primarily driven by rising costs of health insurance.

The 9% increase in teacher salaries is somewhat higher than inflation when compared to cumulative inflation of 6.6% between July 2016 and July 2019 according to the Consumer Price Index. This cannot be explained by an increase in teacher experience: average experience of teachers between 2016 and 2019 dropped slightly by 0.3 years (15.1 versus 14.8). If older, more experienced teachers were retiring one would expect average salaries to decline not increase. This is a similar data dynamic found by the last report by Johnson and Sloan (2019). As they explained, one potential explanation is that the decline in FTE teacher counts between FY16 and FY19 occurred disproportionately in rural areas of the state, where average teacher salaries are lower. Research conducted by Morris and Johnson (2008) showed that in addition to school closings and reorganizations, rural districts have slightly higher rates of teacher turnover.

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.

In June 2019, Maine's legislature passed L.D. 898 "An Act to Provide for a Professional Wage and Support to New Educators," which will raise the minimum teacher salary to \$40,000. The increase will be phased in over three fiscal years: the minimum salary will be \$35,000 for the school year 2020-21, \$37,500 for 2021-22, and \$40,000 for 2022-23.³ In theory, increasing teacher salaries could slow the increase in benefit percentages or even put downward pressure on benefit percentages, since benefit rates are calculated as a ratio of benefits to salary. However, the 2019 MEPRI report (Johnson and Sloan, 2019) produced a rough estimate of the effect of the \$40,000 minimum salary using conservative assumptions about the impact of the minimum salary increase (zero increase in benefit costs), and found only small changes (-0.4%) in the benefit percentage.

Based on the continuous upward trajectory observed in the actual expenditure data and the Johnson and Sloan's estimates, we speculate that while the \$40,000 increase in base pay for teachers could slow the increase in benefit percentages, it is unlikely to reduce them back to the initial EPS

³ <http://legislature.maine.gov/legis/statutes/20-A/title20-Asec13407.html>

benefit percentage (19%). Thus, it is the recommendation of MEPRI researchers that it would be appropriate to update the benefits ratios to levels that are more reflective of actual benefit costs. One way to possibly mitigate the immediate effects of the increases would be to phase in the increase over a three-year time period so that the new rates would be in effect before the next scheduled review of the benefits cost component in the EPS formula. 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.