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## Essential Programs and Services Report of Findings: System Administration Component

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## Essential Programs and Services Report of Findings: System Administration Component

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### SUMMARY

This analysis of the System Administration component of Maine's Essential Programs and Services school funding model was prepared for the Commissioner of Education as part of the ongoing review of the cost formula, as required by Maine statute. Specific elements for analysis were determined in collaboration with the Maine Department of Education.

#### *System Administration key findings*

1. System Administration expenditure was \$86.8 million in FY21 or 3.3% of the total SAU operating expenditure.
2. When EPS was implemented, the EPS per-pupil allocation for system administration was similar to expenditure. Since 2009, the statutory EPS allocation has been set to a level well below actual expenditure.
3. In Fiscal Year 2021, the EPS per-pupil allocation was \$135, which was 27% of the per-pupil expenditure of \$509.
4. System Administration expenditures were *higher* in smaller SAUs, AOSs and CSDs, and rural SAUs especially in remote areas.
5. System Administration expenditures were *lower* in larger SAUs, RSU/SADs and municipal units, and cities, towns, and suburbs.
6. The EPS allocation for system administration was well below expenditure in every Maine SAU as well as every size category, governance type, and locale code examined, and every New England state and the United States as a whole.

A reasonable conclusion is that the current EPS allocation for system administration is below adequacy and that SAUs may make up the difference either with local optional funding or with the state subsidy or local required funding associated with other EPS components. An adequacy model will not necessarily equal statewide expenditures, because actual expenditures do not account for all the scale economies available through regionalization. Regional School Units and larger municipalities, for example, may provide a good model of adequate resources for system administration.

## INTRODUCTION

**“In fulfilling its charge, the committee was guided by one fundamental principle: the purpose of developing the new approach for funding K-12 education was to **ensure that all schools have the programs and services that are essential if all students are to have equitable educational opportunities to achieve the *Learning Results*.**” (SBE, p. 6)**

*Approaches to Adequacy for EPS components.* The various EPS components were developed using different methodological approaches to determining an adequate quantity of resources. For example, the largest EPS component, classroom teachers, was determined using what is known as a *successful schools approach*. Teacher ratios in schools meeting certain success criterion were examined by the committee, which in turn judged that the EPS ratios should be slightly more favorable than those. For components where the resources were considered to have a less direct impact on student success measures, approaches using all SAUs were used. For the transportation component, a *complex cost function approach* was used, where relevant geographic cost factors such as pupil density or sparsity were applied. For other components, including supplies and equipment, operation and maintenance of plant, and originally system administration, simpler cost functions using statewide per-pupil amounts were determined to be sufficient for use in an adequacy model.

*Original EPS Approach to Adequacy for System Administration.* The EPS Committee of the State Board of Education deemed system administration an essential service and, based on the judgment that current practices were adequate, recommended setting the EPS per-pupil amount equal to actual statewide per-pupil expenditure. The following appeared in the seminal 1999 EPS report:

### “System Administration Support

Management of essential programs and services requires district wide administrative resources and services. Currently, approximately 4% of local school district expenditures are devoted to system wide administrative and management services. The Committee believes this percentage is appropriate for what is needed to support the EPS Model. Thus, the Committee recommends the current statewide average per pupil central administrative expenditures in the proposed model. This amounts to \$225 per pupil for grades K-8 and \$270 per pupil for grades 9-12.” (SBE, p.25)

The system administration component does not include any allocation for school administration. School administration is funded through other components of EPS including school personnel ratios for school administrators and clerical, salary matrices, benefits percentages, and supplies & equipment.

*Regionalization and Changes in the System Administration Component.* Subsequent to implementation of the EPS funding model, Maine underwent a regionalization process, where smaller municipal units were able to join into a Regional School Unit (RSU). The RSU statutes put in place the legal structure to facilitate creation of SAUs of sufficient size to achieve economies of scale in district-level functions such as system administration. During the regionalization period, the per-pupil allocation for some district-level EPS components were reduced to account for expected economies of scale. The reduction in the System Administration component was the proportionally largest: the allocation was reduced from \$356 in FY2008 to \$204 in FY2009. It was further reduced in subsequent years and currently stands at \$135 per pupil.

## METHODOLOGY

### *Data*

*Per-Pupil Expenditure.* Per-pupil expenditure for system administration was examined on both resident pupil and attending pupil basis. Attending students are those that enroll in and attend the schools operated by an SAU. Resident students are those whose education the SAU is responsible for funding either by enrolling them in SAU operated schools or by paying the tuition at other schools. Expenditure data by SAU was provided by the Maine Department of Education in the “Resident Expenditures by Budget Category - FY 2020-21” report, including total system administration expenditure, expenditure per resident pupil, and resident pupil counts. The expenditures include general fund overhead expenditures for general administration and central services, which cover the school board, the office of the superintendent, and activities such as human resources, payroll, accounting, planning, and administrative information technology. Attending enrollment data by SAU for Fiscal Year 2020-21 was downloaded from the Maine Department of Education website. System administration

expenditure per attending pupil was computed by SAU using the total system administration expenditure and attending enrollment data.

*Historical Maine Data.* Expenditure per resident pupil for years beginning at EPS implementation in 2005-06 through 2020-21 was from the “Resident Expenditures by Budget Category” reports on the Maine Department of Education website. The EPS per-pupil amounts from 2005-06 through 2022-23 were taken from the ED279 reports on the MDOE website.

*System Administration Expenditure in Other States and Nationwide.* Data on system administration expenditure in the United States was from the National Center for Education Statistics (NCES) report, *Revenues and Expenditures for Public Elementary and Secondary Education: FY 20*, ([NCES, 2022](#))

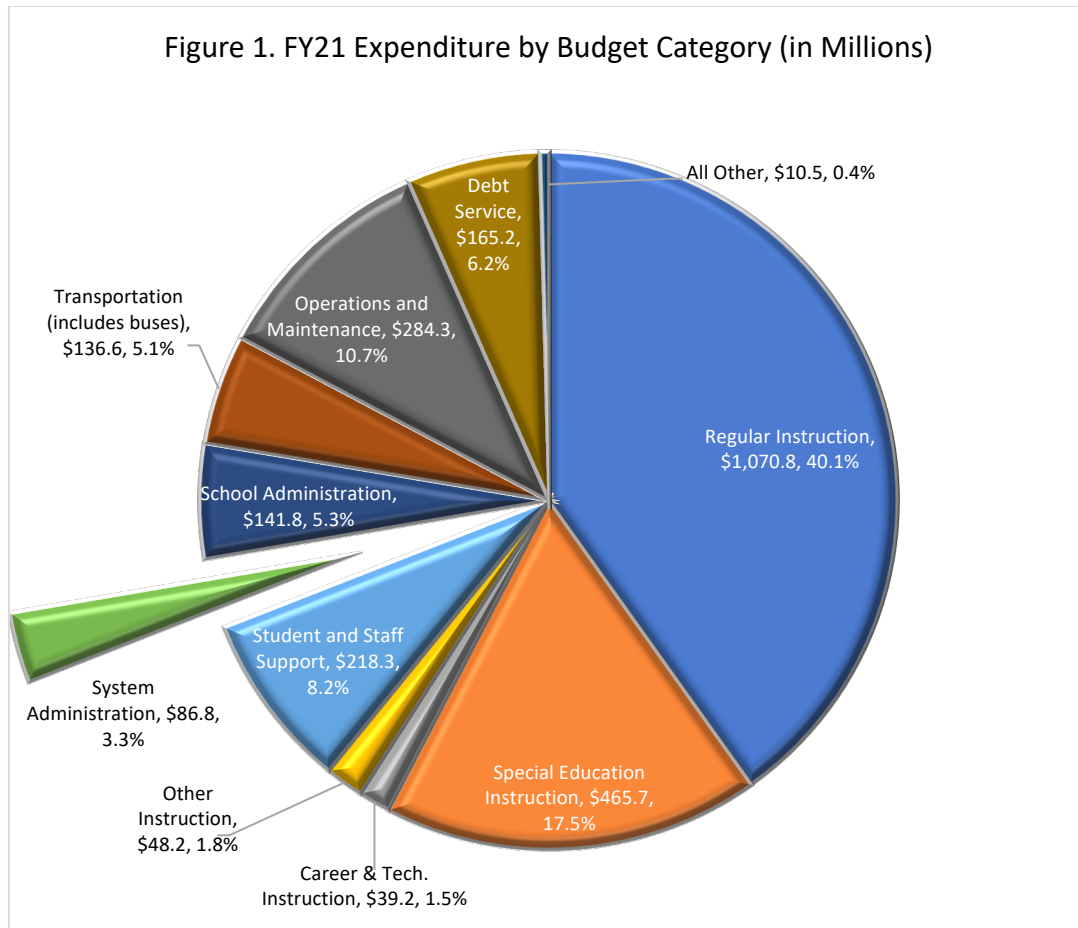
*SAU Characteristics Data.* SAU size categories were determined using both resident and attending enrollments. SAUs that do not operate schools have zero attending enrollment and were therefore excluded from any analyses based on attending enrollment or expenditure per attending pupil. Data on governance type and AOS membership was downloaded from the MDOE website in the workbook titled “School Administrative Units for SY 2020-2021.”

Poverty and Locale data were downloaded from NCES. Poverty rates were the child poverty rate from the U.S. Census. Poverty categories were determined by setting cut points at the median, first and third quartile, and first and ninth decile. Locale data was also downloaded from the NCES. Local Education Agencies (LEAs) such as Maine SAUs are categorized as city, suburb, town, or rural based on urban and rural designations in the US Census. Furthermore, cities and suburbs are classified by size, and town and rural LEAs are classified as fringe, distant, or remote, depending on how far they are from the nearest urbanized area or urban cluster. Because of the small numbers of SAUs and similarity in results, the further breakdowns were presented only for rural SAUs, and not for cities, suburbs and towns.

## FINDINGS

### *System Administration Expenditure in Relation to Other Budget Categories*

System Administration expenditure was \$86.8 million in FY21 or 3.3% of the total SAU operating expenditure as shown in Figure 1.



*System Administration Expenditure Per Resident Pupil and EPS Allocation Over Time (Figure 2 and Table 1)*

There is a substantial gap between actual expenditure and EPS allocation for system administration which has widened over time, as shown below in Figure 2 and Table 1. System administration *expenditure* per pupil decreased slightly from Fiscal Year 2006 to 2011 and has increased since. When EPS was implemented in 2006, the EPS per-pupil *allocation* for system administration was similar to expenditures. It was reduced in 2009 to a level well below actual expenditure and amid further cuts and other adjustments has been well below actual expenditure ever since. Funding declined from 2017 through 2020, when it reached a low of \$47, or 10% of per-pupil expenditure. In Fiscal Year 2021, the EPS per-pupil allocation was \$135, which was 27% of the per-pupil expenditure of \$509.

Figure 2. System Administration Expenditure and EPS Allocation, FY06 to FY23

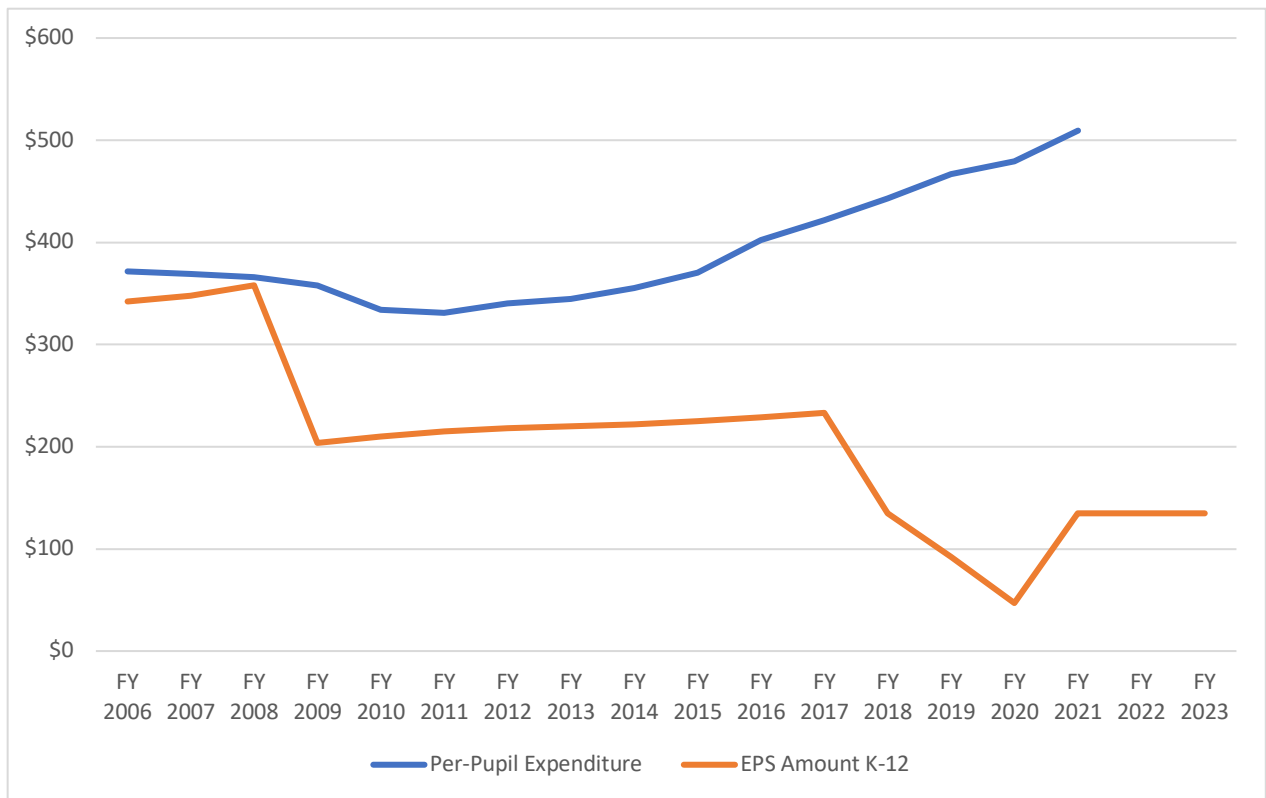




Table 1. System Administration Expenditure Per Resident Pupil and EPS Allocation Over Time

| Fiscal Year | System Administration Per-pupil Expenditure | System Administration EPS Allocation | EPS Allocation as Percentage of Expenditure |
|-------------|---|--------------------------------------|---|
| FY2023      | n.a.  | \$135                                | n.a.  |
| FY2022      | n.a.  | \$135                                | n.a.  |
| FY2021      | \$509                                       | \$135                                | 27%   |
| FY2020      | \$479                                       | \$47                                 | 10%   |
| FY2019      | \$467                                       | \$92                                 | 20%   |
| FY2018      | \$443                                       | \$135                                | 31%   |
| FY2017      | \$422                                       | \$233                                | 55%   |
| FY2016      | \$402                                       | \$229                                | 57%   |
| FY2015      | \$370                                       | \$225                                | 61%   |
| FY2014      | \$355                                       | \$222                                | 63%   |
| FY2013      | \$345                                       | \$220                                | 64%   |
| FY2012      | \$340                                       | \$218                                | 64%   |
| FY2011      | \$331                                       | \$215                                | 65%   |
| FY2010      | \$334                                       | \$210                                | 63%   |
| FY2009      | \$358                                       | \$204                                | 57%   |
| FY2008      | \$366                                       | \$356                                | 97%   |
| FY2007      | n.a.  | \$346                                | n.a.  |
| FY2006      | \$372                                       | \$338                                | 91%   |

*System Administration Expenditure in Maine and Other States (See Table 2)*

While Maine had the lowest total per-pupil operating expenditure of the New England states, its System Administration per-pupil expenditure was the second highest, with New Hampshire being the highest. In terms of a percentage of operating expenditure, Maine and New Hampshire had the highest System Administration expenditure percentage at 4%. The other states in the comparison reported 2% of their total operating expenditures in System Administration.

Table 2. System Administration Expenditure in Maine and Other New England States FY20

|                      | Per-Pupil Operating Expenditure | Per-Pupil System Administration Expenditure |           |
|----------------------|---------------------------------|---|-----------|
| <i>United States</i> | \$13,489                        | \$263                                       | 2%        |
| <b>Maine</b>         | <b>\$16,067</b>                 | <b>\$583</b>                                | <b>4%</b> |
| Connecticut          | \$20,889                        | \$484                                       | 2%        |
| Massachusetts        | \$19,747                        | \$386                                       | 2%        |
| New Hampshire        | \$17,825                        | \$647                                       | 4%        |
| Rhode Island         | \$17,725                        | \$273                                       | 2%        |
| Vermont              | \$22,124                        | \$421                                       | 2%        |

Data Source: NCES

*System Administration Per-Pupil Expenditure Percentiles*

While the median attending per-pupil expenditure for FY2021 was \$627, there was a broad range of per-pupil expenditure amounts among Maine SAUs. The range from the 10<sup>th</sup> to the 90<sup>th</sup> percentile, a measure intended to exclude outliers or extremely high or low amounts, ranges from \$354 to \$1,326 per resident pupil. The FY 2021 *EPS allocation* for system administration was \$135, well below even the 10<sup>th</sup> percentile of the expenditures.

Table 3. System Administration Per-Pupil Expenditure Percentiles FY21

| Statistic    | Percentile       | Resident Per-Pupil Expenditure | Attending Per-Pupil Expenditure |
|--------------|------------------|--------------------------------|---------------------------------|
| 9th decile   | 90 <sup>th</sup> | \$1,326                        | \$1,494                         |
| 3rd quartile | 75 <sup>th</sup> | \$937                          | \$1,004                         |
| Median       | 50 <sup>th</sup> | \$613                          | \$627                           |
| 1st quartile | 25 <sup>th</sup> | \$439                          | \$445                           |
| 1st decile   | 10 <sup>th</sup> | \$354                          | \$359                           |

Excludes zero values

*System Administration Per-Pupil Expenditure by Size (Attending Enrollment)*

Total system administration expenditure in SAUs operating schools in FY21 was \$81,395,728 or \$495 per pupil. System Administration expenditures were *higher* in smaller SAUs, especially those with fewer than 100 students at \$1,451 per pupil. Smaller SAUs also had a wider range of spending per pupil. System Administration expenditures were *lower* in larger SAUs, especially those with 3,000 or more students at \$396 per pupil. The *EPS allocation* for System Administration of \$135 was well below the expenditure in every enrollment category.

Table 4. System Administration Expenditure by Attending Enrollment FY21

| Attending Enrollment | Number of SAUs | Attending Enrollment | Mean Attending | Expenditure  | Per-pupil Spending | Range            |
|----------------------|----------------|----------------------|----------------|--------------|--------------------|------------------|
| 1-99                 | 39             | 1,875                | 48             | \$2,720,583  | \$1,451            | \$432 to \$9,426 |
| 100-499              | 65             | 15,492               | 238            | \$12,241,931 | \$790              | \$220 to \$1,824 |
| 500-999              | 26             | 18,353               | 706            | \$10,901,354 | \$603              | \$382 to \$922   |
| 1,000-2,999          | 53             | 97,340               | 1,837          | \$43,214,515 | \$451              | \$274 to \$822   |
| 3,000 or more        | 8              | 31,407               | 3,926          | \$12,317,345 | \$396              | \$276 to \$575   |
| Total                | 191            | 164,467              | 861            | \$81,395,728 | \$495              | \$220 to \$9,426 |

*Note: The 52 SAUs with no attending students (do not operate schools) reported system administration expenditures of \$822,978.*

### *System Administration Per-Pupil Expenditure by Governance*

Compared to other governance types, RSU/MSADs and Municipalities had the lowest per-pupil expenditures of \$470 and \$511 respectively. AOSs and Community School Districts had the highest per-pupil amounts of \$595 and \$671 respectively. The *EPS allocation* for System Administration, \$135, was well below the expenditure of every governance type.

Table 5: Attending Per-pupil System Administration Expenditure by Governance Type

| SAU Type                  | Number of SAUs | Attending Enrollment | Mean Enrollment | Expenditure  | Per-Pupil Expenditure | Range            |
|---------------------------|----------------|----------------------|-----------------|--------------|-----------------------|------------------|
| RSU/MSAD                  | 73             | 89,191               | 1,222           | \$41,927,455 | \$470                 | \$274 to \$4,015 |
| Municipality              | 72             | 65,411               | 908             | \$33,403,056 | \$511                 | \$276 to \$9,426 |
| AOS Members               | 41             | 7,402                | 181             | \$4,405,498  | \$595                 | \$255 to \$4,815 |
| Community School District | 5              | 2,473                | 495             | \$1,659,719  | \$671                 | \$566 to \$1,328 |
| All Types                 | 191            | 164,467              | 861             | 81,395,728   | \$495                 | \$255 to \$9,426 |

*\* Number of SAUs that do not operate schools was 52 and consisted of 51 municipal school units and one MSAD. Of the 51 municipal school units, 19 were members of an AOS. The total System Administration expenditure of SAUs not operating schools was \$822,978.*

### *System Administration Per-Pupil Expenditure by Locale*

System administration expenditure was lowest in towns (\$405) and cities (\$438). System administration expenditure was highest in rural locales, especially in remote areas, \$758. The *EPS allocation* for System Administration, \$135, was well below the expenditure in every locale.

**Table 6: Per-Pupil System Administration Expenditure by Locale Code**

| Locale Code    | N   | System Administration Expenditure | Attending Enrollment | Per-Pupil Expenditure | Range            |
|----------------|-----|-----------------------------------|----------------------|-----------------------|------------------|
| City           | 5   | \$9,394,091                       | 21,464               | \$438                 | \$278 to \$579   |
| Suburb         | 19  | \$15,925,225                      | 32,364               | \$492                 | \$312 to \$824   |
| Town           | 18  | \$11,629,180                      | 28,732               | \$405                 | \$328 to \$686   |
| Rural: Fringe  | 22  | \$13,655,838                      | 28,989               | \$471                 | \$307 to \$1,829 |
| Rural: Distant | 64  | \$20,434,370                      | 39,175               | \$522                 | \$263 to \$4,176 |
| Rural: Remote  | 53  | \$8,911,229                       | 11,761               | \$758                 | \$350 to \$9,426 |
| Total          | 181 | \$79,949,933                      | 162,485              | \$492                 | \$263 to \$9,426 |

*\*There were ten SAUs with an attending count of 1,982, but no locale code designation. The system administration expenditure for those SAUs was \$1,240,293. There were 52 SAUs that did not operate schools. The System Administration expenditure of those SAUs was \$1,028,479. The total system administration expenditure for the 62 SAUs with missing or no locale code designation was \$2,268,772.*

*System Administration Per-Pupil Expenditure by Child Poverty Rate*

Per pupil spending was lower in SAUs with relatively low child poverty rates and higher in SAUs with higher poverty rates. Per-pupil spending was highest in SAUs with rates above 16.7% with average per-pupil spending of \$549 and \$529 in the two categories.

Table 7. Attending Student System Administration Expenditures by Child Poverty Rate

| Child Poverty Rate | Number of SAUs | Attending Enrollment | Avg # Attending | Expenditure  | Per- pupil spending | Range            |
|--------------------|----------------|----------------------|-----------------|--------------|---------------------|------------------|
| 2.2 to 5.9         | 11             | 16,851               | 1,532           | \$8,434,828  | \$501               | \$363 to \$1,301 |
| 5.9 to 8.8         | 35             | 39,284               | 11,122          | \$18,492,301 | \$471               | \$316 to \$5,237 |
| 8.8 to 13.5        | 49             | 33,787               | 690             | \$15,979,864 | \$473               | \$220 to \$2,060 |
| 13.5 to 16.7       | 50             | 48,017               | 960             | \$24,111,315 | \$502               | \$304 to \$4,814 |
| 16.7 to 21.8       | 32             | 20,466               | 640             | \$11,230,837 | \$549               | \$319 to \$9,426 |
| 21.8 and higher    | 12             | 5,521                | 460             | \$2,921,375  | \$529               | \$340 to \$1,700 |
| Total              | 189            | 163,926              | 867             | \$81,170,520 | \$495               | \$220 to \$9,426 |

*Note: Child Poverty rate not available for Mt Desert Isle, Isle Haut School Dept, total expenditure \$225,208.*

## DISCUSSION & POLICY IMPLICATIONS

The EPS allocation of \$135 per pupil for system administration is well below actual expenditure in every Maine SAU. This was the case for every size category, governance type, and locale code examined. The allocation is also below the average spending level in every New England state, and for the United States as a whole. It is thus reasonable to conclude that the EPS system administration component is currently funding these services at a below-adequate level.

When SAUs spend above the EPS allocation in system administration, they have two choices: they can raise additional local funds to make up the difference, or they can underspend in another EPS funding component area to redirect to system administration. This is because system administration expenditures are from the General Fund rather than grants or other special revenue sources, and General Fund revenues come from a combination of state subsidy, local required funding, and local optional funding. Once combined, these three revenue sources are no longer able to be tracked independently; a General Fund expenditure can come from any one (or more) of them. This design is intentional: the EPS model provides merely an estimate of the minimum adequate level of resources as a basis for determining state aid. SAUs are expected to spend somewhat below the model in some areas to make up for higher spending in others; EPS is not expected to accurately predict (or direct) individual SAU budgets. Thus the additional expenditures for system administration that are happening beyond the EPS system administration allocation may mean that the SAU is choosing to raise additional local option funding to afford its staff and services, but it equally could be using state subsidy or required local dollars that were intended in the EPS allocation for more direct student support.

If the current per-pupil allocation is determined to be inadequate, what amount is adequate? There are multiple potential approaches. The original EPS Committee decided that the adequate amount was the statewide per-pupil amount for all SAUs. Post-regionalization, it may now be reasonable to determine an adequate amount based on a subset of SAUs that exemplify “models” of efficient and effective system administration practices. For example, smaller municipal units have been authorized and empowered to organize into RSUs of larger sizes to promote economies of scale in districtwide services, including system administration. The expenditures in such districts could be used in computing a per-pupil EPS allocation for essential system administration services.

Another policy implication to consider if a higher per-pupil amount for the system administration component is adopted is how to implement it. Currently, system administration appears on Page 1 of each SAU's ED279 subsidy calculation report. As such, it becomes part of the EPS rate, an amount that is multiplied by the *weighted* pupil count for each SAU. If the per-pupil allocation is increased to an amount that is adequate on its own, multiplied by the unweighted pupil count, then there is no need to multiply it by pupil weights. Multiplying by pupil weights would then yield a total amount that is more than the minimum necessary. In this case, it may be preferable to move System Administration to page 3 of the ED279 subsidy calculation instead, where other district-level cost allocations appear. Page 3 amounts are not affected by weighted counts. On the other hand, if the types of additional programs and expenditures that are funded through weighted pupil counts do also require additional system-level administration support, then the current approach may be appropriate.



# Appendix

## Scatterplots: System Administration Expenditure by Enrollment (Resident & Attending)

