Western MA Per Pupil Expenditure Report

Executive Summary

This document contains only the Executive Summary. Full report available at: View full report on GitHub.

"What gets measured gets managed — even when it's pointless to measure and manage it, and even if it harms the purpose of the organisation to do so"
— V. F. Ridgway, 'Dysfunctional Consequences of Performance Measurements', 1956

"By the time it can be captured in numbers, it's too late."
— Peter Drucker, 'The Effective Executive', 1967

History: This 2025 edition, released October 2026, updates the 2024 edition of this report. Contact the author: Tim Shores at shorest@arps.org.

How to use this report

The report is organized from broad regional patterns down to district-level details. As a descriptive report, it makes no forecasts and offers no recommendations. One way to use it would be as a companion to discussions that depend on meaningful cost comparisons. You could read straight through to build understanding from high-level trends to selected district details. Or you could use this **quick-start guide** to answer specific questions:

- How does my school district spending compare to Western MA baselines?
- How does Chapter 70 aid compare?
- How does required and actual net school spending compare?
- How have these categories of spending and aid grown over time in comparison with Western MA baselines?

Quick-start guide:

1. Review the cohort comparison tables at the end of the Executive Summary.
2. Review the **Scatterplot of enrollment vs. per-pupil expenditure** in Section 1 to see how all districts are grouped.
3. Locate your district in **Section 3** for detailed comparison of expenses, enrollment, Chapter 70 aid, and net school spending compared to the cohort.

Understanding Per-Pupil Expenditure in Context

Per-pupil expenditure (PPE) provides a flawed lens for understanding school budgets. While this single metric obscures the complexity of school systems — shaped by student needs, facility requirements, governance structures, and historical commitments — it remains an accessible standard for state reporting and public discussion. We might as well try to understand it in full. This report examines PPE patterns across Western Massachusetts districts, organizing them into enrollment-based cohorts to identify trends and provide context for budget deliberations.

The Challenge of Interpretation

In February 2025, an Amherst Town Councilor asked why regional school spending was "increasing faster than the town's revenue, especially given the significant long-term reduction in the number of students we teach."[1] This question reflects a common assumption or hope that school budgets should track with municipal revenue and scale proportionally with enrollment. However, evidence of school budget trends suggests different dynamics at work.

Schools are not like factories, nonprofit organizations or hospitals. Schools are like schools, and we expect to fund and operate them like schools. As a social service, education is fundamentally labor-intensive. National data shows school districts dedicate 80% of budgets to staff and benefits — salaries, health insurance, and retirement contributions — double the 35-40% typical in other organizations.[2] These costs respond to regional and sectoral labor markets rather than local tax revenues, with the cost of education service historically rising faster than general inflation.[3] Fixed and semi-fixed costs — staffing minimums, transportation contracts, facility operations, utilities, debt service, insurance, legal — cannot be reduced proportionally with enrollment. Students eligible for special education have a right to services regardless of overall enrollment, with costs driven by individual needs rather than district size. Charter school transfers result in a net loss of state aid to tuition payments and often concentrate higher-need student populations in the traditional schools.

Approach

This report takes the position that before we set out to understand why we spend so much on schools, we should ask two key questions: What has our budget growth rate been, and what was our starting point? Understanding whether education costs have grown predictably or exceptionally is a question we can answer by looking at data collected by the Commonwealth. This report breaks down PPE and compares expenses by category, state aid, and local contributions across enrollment-based district cohorts. These groupings allow comparison of districts facing similar scale challenges. The goal is to support informed deliberation about education funding within the broader context of regional economic conditions and policy decisions.

Key Finding: Today's high PPE driven by legacy of high PPE and net spending above required spending — not declining enrollment

Analysis of spending patterns in Amherst-Pelham, Amherst, Leverett, Pelham, and Shutesbury reveals an important pattern: per-pupil expenditure in these districts has grown 3-6% from 2009-2024, rates that are comparable to or lower than their Western Massachusetts peers. Current high PPE and net school spending (NSS) is the result of normal growth from a high starting point. In 2009, these districts already maintained PPE significantly above regional averages. With normal growth rates applied to above-average baselines, spending will remain above average. Understanding this shifts the conversation from 'why are costs so high?' to 'how do we manage the school system that we've inherited at 3-6% annual growth?'

Implications

This finding should shift our focus from addressing perceived runaway costs to addressing the change in local fiscal effort to fund our schools. Fiscal effort measures a community's local tax burden for schools relative to its capacity to pay. The Commonwealth calculates this as each district's required local contribution divided by its combined property values and resident income — a community spending 5% of its wealth shows lower effort than one spending 10%, regardless of absolute dollar amounts.

Two districts with identical PPE amounts and growth may differ significantly in their tax bases. This difference will show up in fiscal effort calculations. This is an objective measure of property value and income used to calculate state aid, but effort is also subjective. If fiscal effort becomes too much for local taxpayers, communities face a hard choice. In this scenario, school committees must identify educational needs and purposeful spending within available resources, but their principal concern will remain with the best interests of the district and the students. Leadership on deciding available resources falls to appropriating bodies and, ultimately, to voters.

In the end, we are likely to find that our structural funding challenges will persist until the Commonwealth finds the courage to deliver policy changes that no region, town or school district can achieve alone.

For a good start on how to advocate for meaningful change, see the July 2022 report A Sustainable Future for Rural Schools, the steadfast work of the champions at Rural Schools MA, and the Amherst-Pelham Regional School Committee's Fiscal Sustainability Subcommittee October 2025 report.[4]

References

1. Amherst Indy, "Letter: Correcting Councilor Ryan on the Regional School Budget"
https://www.amherstindy.org/2025/02/07/letter-correcting-councilor-ryan-on-the-regional-school-budget/

2. American Association of School Administrators, "School Budgets 101"
https://www.aasa.org/docs/default-source/resources/reports/school-budgets-101.pdf

3. Where's the Money Gone? Changes in the Level and Composition of Education Spending (1995) and Inflation and the Measurement of School Spending (1996)
https://www.epi.org/publication/books_wheremoneygone/
https://nces.ed.gov/pubs97/97535/97535jx1.asp

4. Rep. Blais - Rural Schools, Rural Schools Advocacy in Massachusetts, and RSC FSS Report.
https://www.repblais.org/ruralschools
https://www.ruralschoolsma.org/
https://go.boarddocs.com/ma/arps/Board.nsf/goto?open&id;=DMQPEL64432C

All data in this report comes from the Massachusetts Department of Elementary and Secondary Education (DESE). See Appendix A for detailed source information (https://github.com/timshores/schools/blob/main/ppe_report/output/fy2025/WMPPE%20Appendices%20%28FY2025%20data%29.pdf).

Executive Summary (continued)

Total PPE comparison: Western MA enrollment cohorts and selected districts

Shading vs baseline: |Δ$/pupil| ≥ 5.0%, |ΔCAGR| ≥ 0.5pp — Above baseline / Baseline / Below baseline

CAGR = (End/Start)^(1/years) – 1

Table 1

Cohort/District	2009 $/pupil	CAGR 16y	CAGR 10y	CAGR 5y	2024 $/pupil	2025 $/pupil
Western MA (all, excl. Springfield)	$12,210	+4.0%	+4.7%	+6.5%	$22,041	$22,976
Western MA Tiny (0-200 FTE)	$14,066	+4.6%	+5.1%	+7.0%	$26,578	$28,924
Western MA Small (201-800 FTE)	$12,354	+4.5%	+5.3%	+7.0%	$24,114	$25,070
Western MA Medium (801-1600 FTE)	$12,982	+4.0%	+4.6%	+6.3%	$23,382	$24,160
Western MA Large (1601-10K FTE)	$11,757	+3.9%	+4.7%	+6.5%	$20,922	$21,851
Outliers (Springfield)	$14,608	+3.7%	+5.6%	+8.7%	$26,612	$26,053

Table 2

Cohort/District	2009 $/pupil	CAGR 16y	CAGR 10y	CAGR 5y	2024 $/pupil	2025 $/pupil
Western MA Medium (801-1600 FTE)	$12,982	+4.0%	+4.6%	+6.3%	$23,382	$24,160
Amherst-Pelham Regional	$16,211	+3.5%	+3.5%	+5.1%	$28,233	$27,899
Amherst	$16,029	+4.0%	+3.8%	+4.7%	$31,267	$29,984

Table 3

Cohort/District	2009 $/pupil	CAGR 16y	CAGR 10y	CAGR 5y	2024 $/pupil	2025 $/pupil
Western MA Tiny (0-200 FTE)	$14,066	+4.6%	+5.1%	+7.0%	$26,578	$28,924
Leverett	$15,156	+2.8%	+2.1%	+4.5%	$21,910	$23,732
Pelham	$14,733	+2.4%	+2.0%	+2.7%	$23,040	$21,573
Shutesbury	$14,011	+4.3%	+5.8%	+3.4%	$27,383	$27,389

Table 1 compares PPE and cost growth of Western MA school district cohorts with the benchmark of all Western MA districts. **Tables 2 and 3** benchmark districts against their cohort averages. The 2024 column is recomputed from DESE's current data with the same cohort membership as 2025, so it can differ from the first edition where DESE has since revised its figures.

Cohorts are organized by enrollment size. Grouping districts by enrollment size enables more meaningful cost comparisons — districts of similar size face similar challenges with administration, staffing, facilities, and program requirements. Detailed information about cohorts follow in **sections 1 and 2**. Detailed comparisons of individual districts to cohorts follow in **sections 2 and 3**.

Why the CAGR threshold is more sensitive

Small differences in growth rates compound over time. A 0.5pp difference may seem modest, but:

- $20,000 PPE growing at 4.0% → $36,019 after 15 years
- $20,000 PPE growing at 4.5% → $38,706 after 15 years
- Gap: $2,687/pupil (7.5% more total growth)

For a 100-student district, that's $268,700 in additional annual spending by year 15. The 0.5pp threshold helps identify districts on meaningfully different long-term trajectories.

Executive Summary (continued)

Chapter 70 Aid (per foundation pupil): Western MA enrollment cohorts and selected districts

Shading vs baseline: |Δ$/pupil| ≥ 5.0%, |ΔCAGR| ≥ 0.5pp — Above baseline / Baseline / Below baseline

CAGR = (End/Start)^(1/years) – 1

Table 4

Cohort/District	2009 $/pupil	CAGR 16y	CAGR 10y	CAGR 5y	2024 $/pupil	2025 $/pupil
Western MA (all, excl. Springfield)	$5,069	+3.7%	+4.7%	+6.2%	$8,565	$8,997
Western MA Tiny (0-200 FTE)	$3,311	+3.3%	+4.5%	+5.6%	$5,340	$5,560
Western MA Small (201-800 FTE)	$4,060	+3.1%	+3.8%	+4.3%	$6,228	$6,596
Western MA Medium (801-1600 FTE)	$5,542	+2.9%	+3.6%	+5.2%	$8,402	$8,718
Western MA Large (1601-10K FTE)	$5,125	+4.0%	+5.1%	+6.7%	$9,122	$9,574
Outliers (Springfield)	$9,305	+4.1%	+5.4%	+7.3%	$16,866	$17,825

Table 5

Cohort/District	2009 $/pupil	CAGR 16y	CAGR 10y	CAGR 5y	2024 $/pupil	2025 $/pupil
Western MA Medium (801-1600 FTE)	$5,542	+2.9%	+3.6%	+5.2%	$8,402	$8,718
Amherst-Pelham Regional	$5,488	+2.4%	+2.7%	+3.1%	$7,658	$7,966
Amherst	$4,483	+2.3%	+2.8%	+3.7%	$5,953	$6,487

Table 6

Cohort/District	2009 $/pupil	CAGR 16y	CAGR 10y	CAGR 5y	2024 $/pupil	2025 $/pupil
Western MA Tiny (0-200 FTE)	$3,311	+3.3%	+4.5%	+5.6%	$5,340	$5,560
Leverett	$2,303	+3.3%	+3.4%	+8.0%	$3,930	$3,885
Pelham	$2,743	+2.5%	+2.5%	+7.1%	$3,941	$4,045
Shutesbury	$3,952	+3.3%	+4.6%	+4.2%	$5,820	$6,629

Tables 4-6 compare Chapter 70 aid (per foundation pupil) across Western MA school districts organized by enrollment size.

Note about enrollment denominators

Chapter 70 aid and net school spending calculations use foundation enrollment for per-pupil figures, while PPE totals and expense categories use in-district FTE enrollment. These metrics come from different DESE reporting touchpoints:

• **Foundation enrollment** (Chapter 70 profile): All students residing in the district on October 1st of the prior year for whom the district is financially responsible.
• **In-district FTE** (End-of-year-report (EOYR)): Full-year enrollment calculated from total membership days for students either residing in the district, or choiced or tuitioned into the district.

This difference complicates direct comparison between Chapter 70 and expense analyses, but remains valid since each district uses the same denominator type within each metric. The comparison is not apples-to-oranges, but a picture of apples in the morning compared with a picture of apples in the evening. For more information, see the DESE Researcher's Guide: https://www.doe.mass.edu/research/researchers.html

Executive Summary (continued)

Actual NSS above Required NSS (per foundation pupil): Western MA enrollment cohorts and selected districts

Shading vs baseline: |Δ$/pupil| ≥ 5.0%, |ΔCAGR| ≥ 0.5pp	Above baseline
	Baseline
CAGR = (End/Start)^(1/years) – 1	Below baseline

Table 7

Cohort/District	2009 $/pupil	CAGR 16y	CAGR 10y	CAGR 5y	2024 $/pupil	2025 $/pupil
Western MA (all, excl. Springfield)	$1,436	+5.9%	+7.0%	+4.6%	$3,365	$3,581
Western MA Tiny (0-200 FTE)	$4,200	+6.7%	+7.5%	+5.2%	$11,205	$11,843
Western MA Small (201-800 FTE)	$2,279	+7.3%	+9.0%	+7.2%	$6,376	$7,063
Western MA Medium (801-1600 FTE)	$1,920	+5.0%	+7.8%	+5.6%	$3,819	$4,201
Western MA Large (1601-10K FTE)	$930	+6.4%	+6.2%	+3.5%	$2,380	$2,527
Outliers (Springfield)	-$150	+6.5%	+15.1%	+20.3%	-$0	$7

Table 8

Cohort/District	2009 $/pupil	CAGR 16y	CAGR 10y	CAGR 5y	2024 $/pupil	2025 $/pupil
Western MA Medium (801-1600 FTE)	$1,920	+5.0%	+7.8%	+5.6%	$3,819	$4,201
Amherst-Pelham Regional	$3,407	+4.2%	+4.2%	+4.0%	$6,059	$6,545
Amherst	$6,169	+4.6%	+5.9%	+6.6%	$11,078	$12,699

Table 9

Cohort/District	2009 $/pupil	CAGR 16y	CAGR 10y	CAGR 5y	2024 $/pupil	2025 $/pupil
Western MA Tiny (0-200 FTE)	$4,200	+6.7%	+7.5%	+5.2%	$11,205	$11,843
Leverett	$7,014	+2.7%	+1.0%	-0.9%	$10,957	$10,788
Pelham	$7,694	+6.2%	+7.9%	+11.9%	$20,252	$20,171
Shutesbury	$4,331	+8.2%	+7.8%	+5.7%	$10,450	$15,220

Tables 7-9 compare Actual NSS above Required NSS (per foundation pupil) - showing local funding effort beyond state requirements.

How this report was made

Tim Shores designed this analysis and is responsible for its content. Claude Code, Anthropic's AI coding assistant, helped write the Python code that builds the report and helped draft its text, working from his direction; he reviewed and revised both. Appendix A, section 7, has the details. The code, data and full history of changes are public at github.com/timshores/schools.