

7/17/2017

The Massachusetts Foundation Budget

In Massachusetts, the definition of an adequate spending level for a school district is called its “foundation budget.” The goal of the Chapter 70 formula is to ensure that every district has sufficient resources to meet its foundation budget spending level, through an equitable combination of local property taxes and state aid. The foundation budget is perhaps the most important factor used in calculating a district’s Chapter 70 state education aid.

The foundation budget has its origins in three milestones:

- the Massachusetts Business Alliance for Education’s release of *Every Child a Winner*, an influential report that laid the groundwork for what would ultimately become the 1993 Education Reform Act. In the report, MBAE calls for “high standards, accountability for performance, and equitable distribution of resources among school districts.”¹;
- *McDuffy v. Secretary of the Executive Office of Education* (1993), where the Supreme Judicial Court held that the education clause imposes on the Commonwealth “an enforceable duty to provide an education for all students regardless of wealth through the public schools”²;
- and subsequently, the 1993 Education Reform Act, “which for the first time, established a required ‘foundation’ level of spending for each district in the Commonwealth that was to be reached by the establishment of both a state-mandated, required local contribution and a supplemental amount of state aid.”³

Foundation budgets reflect meaningful differences in enrollment, student characteristics, and geographic differences in wages.

A district’s foundation budget is updated each year. It is influenced by three factors:

- Foundation enrollment
- Inflation
- Wage adjustment factor

The FY18 foundation budget continues the [major changes to the calculations](#) first implemented in FY07. These changes directly aligned the foundation budget categories with the chart of accounts which districts use to track how they spend their money.

It is notable that since FY05, charter school tuition rates have relied upon foundation budgets calculated for each sending district’s pupils at each charter school.

Foundation enrollment is a key factor in determining a school district’s foundation budget and Chapter 70 state education aid.

Foundation enrollment relies on a count of the students for whom a school district is financially responsible on October 1st of any given year. Those who leave in September or arrive after October 1st are not counted. A student who happens to be absent on October 1st is included nonetheless; this is a measure of enrollment, not attendance. Enrollment plays an important role not just because of the total

¹ *Every Child a Winner*, Massachusetts Business Alliance for Education (MBAE), 1991.
<http://www.mbae.org/every-child-a-winner/>

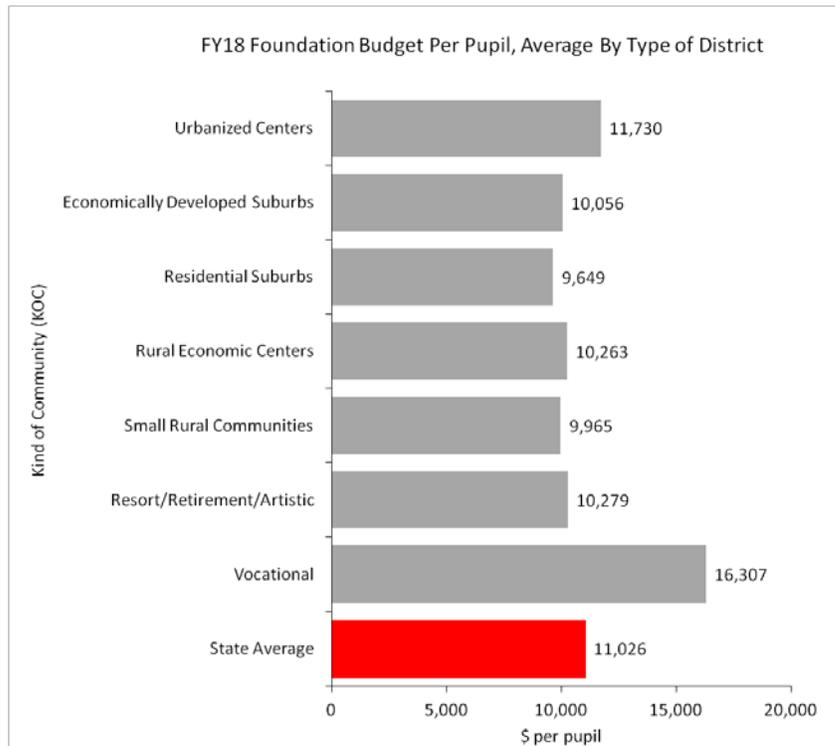
² The State Constitutional Mandate for Education: The McDuffy and Hancock Decisions
http://www.doe.mass.edu/lawsregs/litigation/mcduffy_hancock.html

³ Building on 20 Years of Massachusetts Education Reform
<http://www.doe.mass.edu/commissioner/BuildingOnReform.pdf>

number of pupils, but also because there are differences in the costs associated with various educational programs, grade levels, and student needs. Districts differ greatly in the percentages of their student population that fall into these enrollment categories.

When districts' foundation budgets are presented in per pupil terms, there is considerable variation.

The FY18 statewide average is \$11,026 per pupil. After separating out vocational districts as a separate category, urbanized centers are higher than other types of districts by more than \$1,400 per pupil.



A [listing by district](#) shows each district's per pupil amount, with some of the key factors that can contribute to higher foundation budgets.

Foundation enrollment is comprised primarily of local resident students attending their community's local or regional school district.⁴

While Massachusetts cities and towns serve their resident students through a number of different governance structures, the most common structure is for a community to operate its own K-12 system, and to belong to a vocational regional school district. About 94 percent of publicly-funded schoolchildren enroll in the school district directly associated with their cities and towns of residence.

Foundation enrollment also includes students for whom the district is paying tuition.

About 6 percent of public schoolchildren attend in settings other than their home districts, including:

- Students attending charter schools;

⁴ For foundation enrollment, resident students also include Horace Mann charter students, and foreign exchange students (who do not pay tuition).

- Students attending another public school district through interdistrict school choice;
- Special education students for whom their home district pays tuition to a private special education school or another public school district with an appropriate program; and
- Vocational students attending a school to which their town is not a member, when the home vocational district does not offer the program they are seeking (Chapter 74 non-resident tuition program).

Foundation enrollment does not include students tuitioned-in from other districts, because their home districts are paying for those students’ costs.

There are two exceptions to the general rule that the home district pays tuition for out-of-district placements.

- Students participating in the METCO racial imbalance program count in the district where they are educated. Home districts such as Boston, and Springfield do not pay tuition for these pupils.
- Children of non-resident teachers, where the district’s collective bargaining agreements allow them to attend at no cost. Again, home districts do not pay tuition; the districts where the teachers work have chosen to take on the fiscal responsibility, and the Commonwealth shares in the cost.

The Massachusetts Department of Elementary and Secondary Education (DESE) computes foundation enrollment using student-specific data submitted by each Massachusetts school district through the Student Information Management System (SIMS).

Because of the timing involved in the state budget process, foundation enrollment lags by one year. For example, FY18 Chapter 70 relies upon October 1st, 2016 pupil counts, which were the latest available when the Governor and Legislature were making their FY18 budget proposals during the winter and spring of 2017.

A district's foundation budget is derived by multiplying the number of pupils in thirteen enrollment categories by cost rates in eleven functional areas. In computing the foundation budget, each pupil must first be assigned to one of the following 10 discrete categories.

Based upon the pupil-specific information submitted by each school district to DESE, a student is classified as being in one of the following categories, which appear in columns 1 through 10 of a district’s foundation budget.

Column	Description
1	regular education or special education pre-kindergarten
2	regular or special education half-day kindergarten
3	regular or special education full-day kindergarten
4	regular or special education elementary (grades 1-5)
5	regular or special education junior high/middle (grades 6-8)
6	regular or special education senior high (grades 9-13) ⁵
7	limited English pre-kindergarten
8	limited English half-day kindergarten
9	limited English (grades 1-12)
10	vocational education (grades 9-12) ⁶

⁵ Special education pupils in life-skills and similar programs beyond the 9-12 curriculum are listed as being in grade 13 and counted as high-schoolers.

The following rules apply in cases where it may not be clear which category is appropriate, or whether a pupil should be included in foundation enrollment at all.

- If parents/guardians pay tuition for kindergartners to attend the optional second half of a full-day kindergarten program, they are counted as half-day pupils.
- Home-schooled children are not counted in foundation enrollment even if they receive district services or participate in school activities.
- Students in vocational education must be in approved Chapter 74 programs. Otherwise they are placed in the regular education senior high category.
- Students falling into both the English language learner (ELL) and vocational education categories are assigned to the vocational category, which has the higher rate.

These headcounts are applied to specific cost rates to determine foundation budgets. A district's **total foundation enrollment** equals the sum the above full day headcounts plus the students in pre-kindergarten and half-day kindergarten divided by two (to reflect their relative full-time equivalency.)

Any district's FY18 calculations can be seen on the "foundation budget" report available in the [FY18 Chapter 70 formula spreadsheet](#). Here we use the [Marshfield school district's calculations](#) as an example. The columns going across the page are the fourteen enrollment categories used in the foundation budget calculation.

Figure 1

	Base Foundation Components										Incremental Costs Above The Base			TOTAL*
	(1) Pre-School	(2) ----- Kindergarten Half-Day	(3) ----- Full-Day	(4) Elementary	(5) Jr High/ Middle	(6) High School	(7) ELL PK	(8) ELL K Half	(9) ELL KF - 12	(10) Voca- tional	(11) Special Ed In District	(12) Special Ed Out of Dist	(13) Economically Disadvantaged	
Foundation Enrollment	130	272	6	1,436	1,022	1,356	0	1	39	67	153	40	573	4,128
1 Administration	24,642	51,558	2,274	544,361	387,421	514,034	0	190	14,784	25,398	400,302	104,654	0	2,069,618
2 Instructional Leadership	44,504	93,117	4,108	983,174	699,724	928,401	0	342	26,702	45,872	0	0	0	2,825,945
3 Classroom and Specialist Teachers	204,062	426,961	18,836	4,508,132	2,823,445	5,509,051	0	2,364	184,394	482,747	1,320,896	0	1,800,080	17,260,967
4 Other Teaching Services	52,336	109,503	4,831	1,156,256	592,363	654,317	0	322	25,109	32,330	1,233,302	1,599	0	3,862,269
5 Professional Development	8,070	16,885	745	178,407	137,646	177,071	0	84	6,558	14,465	63,720	0	39,619	643,271
6 Instructional Equipment & Tech	28,675	59,998	2,647	633,491	450,855	957,133	0	221	17,205	82,760	53,997	0	0	2,286,981
7 Guidance and Psychological	14,847	31,064	1,371	328,045	310,777	516,888	0	152	11,859	25,539	0	0	0	1,240,538
8 Pupil Services	5,905	12,355	545	195,756	227,564	696,245	0	68	5,316	34,401	0	0	0	1,178,157
9 Operations and Maintenance	56,666	118,564	5,231	1,251,884	965,910	1,242,626	0	590	46,027	114,909	447,157	0	278,009	4,527,533
10 Employee Benefits/Fixed Charges	56,191	117,569	5,187	1,241,417	873,488	1,079,272	0	520	40,006	82,516	503,207	0	177,401	4,176,773
11 Special Ed Tuition	0	0	0	0	0	0	0	0	0	0	0	964,695	0	964,695
12 Total	495,899	1,037,574	45,776	11,020,903	7,469,193	12,275,032	0	4,853	377,961	920,937	4,022,581	1,070,948	2,295,109	41,036,767
13 Wage Adjustment Factor	103.0%													
14 Economically Disadvantaged Decile	3													
											Foundation Budget per Pupil			9,941

These headcounts are used to compute total foundation enrollment at the far right of the report. Note that for the purpose of computing this total, pre-school and half-day kindergarten categories count as .5 full-time equivalent pupils because they typically attend for half the school day. For example, Marshfield's total foundation enrollment of 4,128 (shown in the last column on the right) counts its 130 pre-schoolers (columns 1 and 7) as 65 pupils; and its 273 half-day kindergartners (columns 2 and 8) count as 137 pupils.

⁶ If a town is a member of a regional vocational district, its resident pupils at that district are not counted in local district enrollment. The vocational district reports those pupils and Chapter 70 aid goes directly to the vocational district. Post-graduate and post-secondary pupils in programs run by vocational districts may be counted if they pay less than the state-approved tuition rate.

Special education and low income costs are treated as costs above the base. There are three cost increment categories that are intended to reflect the additional resources needed to educate these populations.

- Assumed in-district special education enrollment (column 11) is set at 3.75 percent of foundation enrollment (not including pre-kindergarten and vocational pupils) and 4.75 percent of vocational enrollment. These headcounts are “assumed” rather than actual counts of pupils, an approach which is practiced in eight other states around the country.⁷ This method is in place to prevent over identification of special education students for the purpose of fiscal gain.
- Assumed out-of-district special education enrollment (column 12) is set at one percent of total foundation enrollment (again not including pre-kindergarten and vocational pupils).
- Economically disadvantaged status (column 13) is contingent on a student’s participation in one or more of the following state-administered programs: Supplemental Nutrition Assistance Program (SNAP); Transitional Assistance for Families with Dependent Children (TAFDC); Department of Children and Families’ (DCF) foster care program; or MassHealth (Medicaid) up to 133% of the federal poverty level (FPL). Unlike foundation enrollment, economically disadvantaged headcounts are assigned to the district where the pupils are actually enrolled (and where the extra costs occur), even if they are tuitioned-in from another district.

Columns 11 through 13 reflect these incremental costs above the base. These students have already been counted in columns 1 through 10, and are therefore not added to total enrollment.

After a district’s foundation enrollment is calculated, it is applied to specific cost rates in eleven functional areas to arrive at the upcoming year’s foundation budget.

These cost rates are based upon a “model school budget”, developed by a group of superintendents and an economist in the early 1990s. They reflect the major cost centers of school spending:

Administration
Instructional Leadership
Classroom and Specialist Teachers
Other Teaching Services
Professional Development
Instructional Equipment & Technology
Guidance and Psychological Services
Pupil Services
Operations and Maintenance
Employee Benefits & Fixed Charges
Special Education Tuition

Foundation budget rates reflect differences in the cost of educating different types of students. Each pupil generates a specific cost in each functional category. The costs are higher at the upper grades. They

⁷ Verstegen, D. A. (2014) “Policy Brief: How Do States Pay for Schools? An Update of a 50-State Survey of Finance Policies and Programs”. Association for Education Finance and Policy Annual Conference. Retrieved 6/8/2016, from <https://schoolfinancesdav.files.wordpress.com/2014/04/aefp-50-stateaidsystems.pdf>. As of 2014, eight other states used a “census-based approach” similar to Massachusetts.

are also higher in the English language learner (ELL) and vocational programs. Special education and low-income increments add substantial costs as well.

A summary of the [assumptions underlying foundation rates](#) describes how all eleven categories are derived. The largest dollar amount is represented by the class size and salary assumptions for teachers. The statutory class sizes of 22 for elementary, 25 for junior high/middle, and 17 for high school remain in effect. The FY94 teacher salary of \$38,000 has been factored up by inflation so that in FY18 it stands at \$67,885.

Foundation budget rates are adjusted each year by a statutorily defined inflationary factor. It affects all districts in the same way.

Chapter 70 statute stipulates usage of the ratio of the current year's third-quarter inflation index to the prior year's third-quarter index.⁸

The “wage adjustment factor” gives a district credit for having higher school costs if it is located in a geographic area where average wages are higher than in other areas of the state.

In theory it is more expensive for them to attract teachers and other staff to come to work there, because the cost of living is higher. Massachusetts is one of the few states in the country to use such a factor.

The wage factor is calculated using the latest available average wage data supplied by the state’s Department of Employment. The factor reflects a town’s own average, but is much more heavily weighted to the average of the “labor market area” the town is located in. There are 23 labor market areas used. There are real differences in these averages, which represent the combined total for all industries both private and public.

Labor Market Area (LMA)	CY15 Wages	CY15 Employment	CY15 LMA Avg
Nantucket County/town MA	377,798,971	7,067	53,460
Athol MA Micropolitan NECTA	235,427,701	6,401	36,780
Barnstable Town MA Metropolitan NECTA	4,665,650,516	106,068	43,987
Boston-Cambridge-Newton MA NECTA Division	138,703,272,903	1,744,568	79,506
Brockton-Bridgewater-Easton MA NECTA Division	3,717,751,906	77,317	48,085
Framingham MA NECTA Division	12,711,032,355	171,528	74,105
Greenfield Town MA Micropolitan NECTA	603,929,873	15,072	40,070
Haverhill-Newburyport-Amesbury Town MA-NH NECTA Division	2,161,549,016	45,349	47,665
Lawrence-Methuen Town-Salem MA-NH NECTA Division	2,938,175,287	59,065	49,745
Leominster-Gardner MA Metropolitan NECTA	2,128,692,820	49,661	42,864
Lowell-Billerica-Chelmsford MA-NH NECTA Division	9,537,210,563	144,078	66,195
Lynn-Saugus-Marblehead MA NECTA Division	2,053,878,187	44,136	46,535
Nashua NH-MA NECTA Division	82,565,921	1,897	43,524
New Bedford MA Metropolitan NECTA	2,992,337,589	66,086	45,279
North Adams MA-VT Micropolitan NECTA	425,906,464	9,905	42,999
Peabody-Salem-Beverly MA NECTA Division	5,039,382,256	93,453	53,924
Pittsfield MA Metropolitan NECTA	1,875,065,232	42,010	44,634

⁸ Line 26, Table 1.1.9. Implicit Price Deflators for Gross Domestic Product, Bureau of Economic Analysis. <http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1#reqid=9&step=3&isuri=1&903=13>.

Labor Market Area (LMA)	CY15 Wages	CY15 Employment	CY15 LMA Avg
Providence-Warwick RI-MA Metropolitan NECTA	4,193,392,940	100,326	41,798
Springfield MA-CT Metropolitan NECTA	12,819,557,566	272,876	46,979
Taunton-Middleborough-Norton MA NECTA Division	2,971,809,943	58,061	51,184
Vineyard Haven MA Micropolitan NECTA	413,100,643	8,665	47,675
Worcester MA-CT Metropolitan NECTA	12,770,995,874	244,918	52,144
Buckland MA LMA	49,383,753	1,708	28,913
Great Barrington MA LMA	386,128,323	9,884	39,066
State total	223,853,996,602	3,380,099	66,227

A district's wage factor is a percentage that is applied to the eight salary-related functional categories in the foundation budget⁹. The labor market area for a district is compared to the state average and weighted at 80 percent. The town's own factor is weighted at 20 percent. The distance above or below the state average is then divided by three to determine the wage adjustment factor.

Prior to FY2000, districts in lower-wage areas saw significant reductions in their foundation budgets, by as much as ten percent. Since then, annual budget language has cushioned districts from these reductions, to the point where beginning in FY04, only those with above-average wages have been affected by the wage adjustment factor. Those below the average are set to 100 percent. In FY18, 110 municipalities in just three labor market areas are affected:

- Boston-Cambridge-Newton MA NECTA Division
- Framingham MA NECTA Division
- Lowell-Billerica-Chelmsford MA-NH NECTA Division

A district's wage factor appears at the bottom left of its foundation budget report. Marshfield's wage factor is 103 percent.

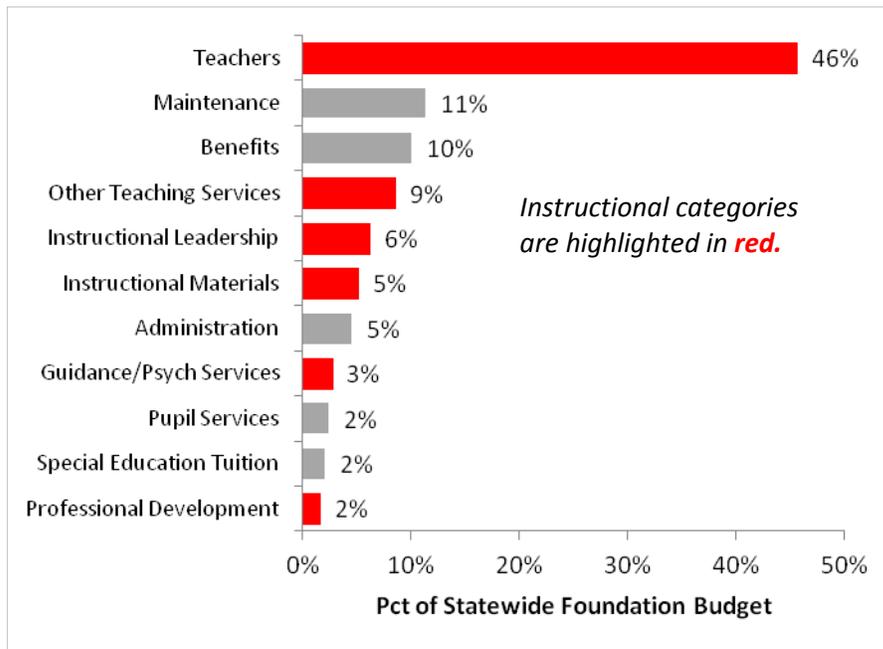
⁹ The wage factor is not applied to instructional equipment, employee benefits, or special education tuition.

FY18 Foundation Budget: Massachusetts State Totals

After applying the wage factor, the statewide total for all school districts in FY18 is \$10,379,173,843. Teaching makes up 46 percent. The six instructional categories (instructional leadership, teachers, other teaching services, professional development, instructional materials/technology, and guidance/psychological) account for a combined 70 percent.

FY18 Foundation Budget by Category

		Pct of Total
Administration	469,429,414	5%
Pupil Services	247,795,730	2%
Maintenance	1,170,510,982	11%
Benefits	1,046,746,500	10%
Special Education Tuition	212,281,179	2%
Instructional Leadership	640,552,127	6%
Teachers	4,732,621,675	46%
Other Teaching Services	887,194,829	9%
Professional Development	165,409,638	2%
Instructional Materials	528,421,238	5%
Guidance/Psych Services	278,210,530	3%
Total	10,379,173,843	100%



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