

Defining the Gap Between DOE's Foundation Budget and Delivering a Foundational Education

Case Study -- Tyngsborough Public School District, FY07

Purpose of this Study

The purpose of this case study is to provide a clear example of how the foundation budget formula used by the Department of Education (DOE) is inadequate for public schools to deliver a “foundational education.”

Foundation Budget

In Massachusetts, the definition of an adequate spending level for a school district is called its "foundation budget". Every school district must spend at least this amount to educate its students. The formula used to determine the “foundation budget” was developed in FY94. Numerous state and federal mandates and curriculum changes, as well as more and more extensive MCAS testing have been introduced since that time.

It is important to note that recent changes to the foundation budget have simply reconstituted costs into a new set of categories for more understandable reporting. In their report (http://finance1.doe.mass.edu/chapter70/chapter_07_change_detail.doc), the DOE acknowledges that the rates have only been changed such that there is no significant change to the final foundation budgets amounts. The new foundation budget formula might be more understandable, but it is still not adequate.

What is a “Foundational Education”?

In this study we define a foundational budget as the amount of money required to comply with DOE educational frameworks as well as state and federal education standards and guidelines. For years, school committees and school superintendents, represented individually and through the Massachusetts Association of School Committees, the Massachusetts Association of School Superintendents, and coalition groups such as The Suburban Coalition, have argued that the foundation formula is not adequate to deliver a foundational education.

Why Defining the “True” Foundation Budget is Important

When the claim that foundation budget is not enough has been made to state legislators, the responses have consistently been that there is not enough money to fund the “true” foundation. While this is understandable, legislators should to consider the implication of setting the bar artificially low. A foundation budget formula that results in amounts inadequate to deliver a foundational education straps the hands of suburban school committees and municipalities. Why should residents vote to override Proposition 2 ½ to provide more funding for public education when the schools are already spending more than what the DOE has defined to be “foundation spending”? When school committee members argue that the state-defined “foundation budget” is not adequate, their arguments many times fall on deaf ears. Statewide, 948 overrides have been attempted over the past 7 years yet only half have prevailed; \$500 million has been sought, \$257 million has been added to municipalities’ property tax base since FY2000.

Tyngsborough has tried to increase revenue from its property tax base. Tyngsborough is currently taxing to the levy limit. The Board of Selectmen, upon request from and with the support of the School Committee, have requested two overrides of Proposition 2 ½ from town residents (\$1.9M in FY06, \$1.6M in FY07). Both efforts have failed. Residents see that the schools are spending above the foundation budget and do not feel compelled to increase their property taxes voluntarily in order to give the town or schools enough additional revenue to pay for the increasing cost of maintaining what we have. Health Insurance benefits for school employees increase by 12-18% every year and thus continue to eat up any additional Chapter 70 funding received from the state. Local aid has been just about flat. Municipal growth is down. The only way Tyngsborough has been able to balance its budget has been to implement cuts from level service every one of the past four budget cycles.

The other source of funding is state income taxes and fees. The state continues to under fund public education yet has not slowed down on adding educational mandates and increasing MCAS testing and graduation requirements.

Case Study – Tyngsborough Public Schools

At the Massachusetts Association of School Committees’ “Day on the Hill” last May, 2006, members of the Tyngsborough School Committee discussed this issue with their Representative, Colleen Garry. Representative Garry challenged them to define what a foundational education would be in Tyngsborough and how much that would cost. In response, the Committee asked their School

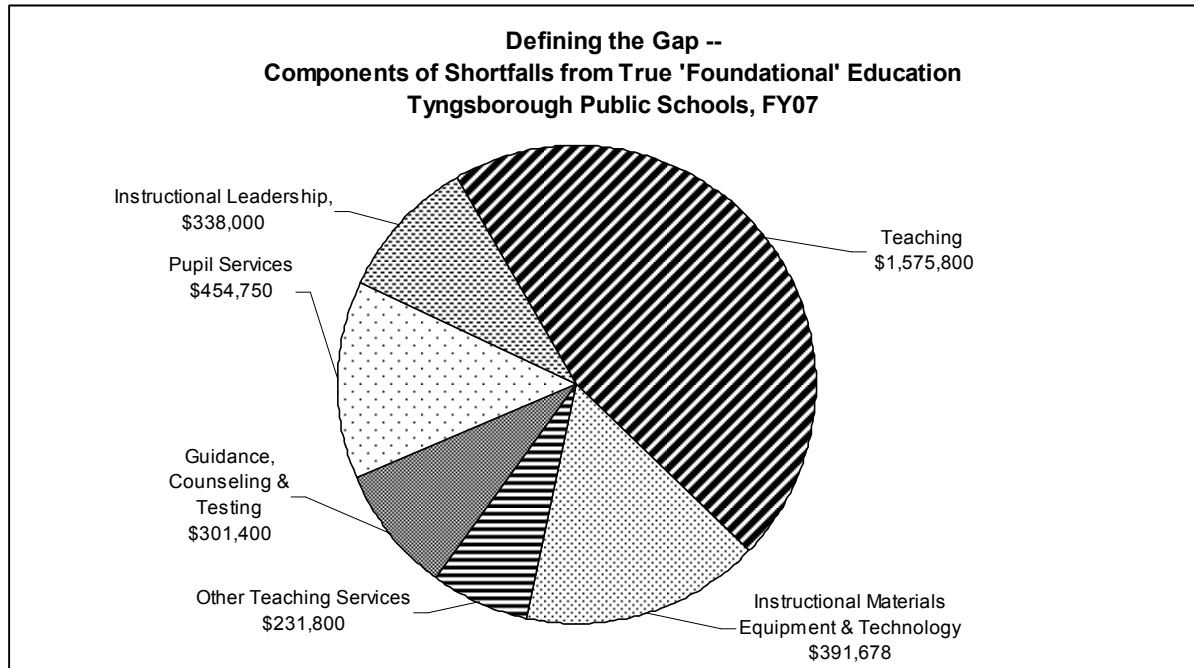
Administrators to do this type of analysis with their School Councils and to use this information to drive their School Improvement Plans. The information presented here is based on that work.

At each school, parents, teachers and administrators referred to state and federal education standards when defining what a “Foundational Education” should look like at their school and what additional resources would be required to achieve that (please see the Appendix for a description of each school and an explanation of the standards used). Their work has been synthesized into Table A. The categories of expenses in Table A and as discussed in the Appendix line up with the DOE’s new “Foundation Budget” categories.

Conclusion

Using Tyngsborough as a Case Study, the current Foundation Budget for Tyngsborough Public Schools as defined by the Department of Education is 28%, or \$4.4 million short of what it would take to deliver a foundational education in Tyngsborough. Tyngsborough is not able to deliver a foundational education to its student population. The diagram on the next page shows a breakdown of the areas of FY07 budget shortfall in delivering a foundational education.

This analysis is one of numbers. What do the numbers mean to public education in Tyngsborough? School children in Tyngsborough are receiving less and less, with class sizes growing, curriculum offerings shrinking, user fees increasing, and good teachers leaving for better pastures. What was once a school district that attracted innovative, dedicated teachers who led the state in new educational endeavors (FIRST Robotics, virtual classroom, one of the first systems to achieve full NEASC accreditation across all schools in the district, multi-age classrooms, Night Under the Stars, Harbor Program, extended day for library and computer labs, Chandler Mine, PALMS, etc.) now fights to hold onto the talent that is left; fights to keep their passion and commitment against an ever-declining morale.



Next Steps

This case study is one example of the inadequacy of the current foundation budget formula and how this inadequacy results in an under funded school system. Ideally, the next step would be a statewide analysis that looks honestly at the foundational cost of delivering a quality public education in Massachusetts that also meets the education frameworks and state and national education guidelines and laws. For each component of the foundation formula, analysis of the true cost of delivering that component in congruence with the frameworks, guidelines and laws needs to be assessed and an adequate standard cost per student determined.

The fact that the State does not have adequate funds to fund a truly “foundational” public education to every student in Massachusetts should not deter legislators from wanting to know what this true cost would be. Setting the foundation bar accurately would give state and municipal leaders, as well as voters, an honest goal to work toward. It is the hope of the Tyngsborough School Committee and Tyngsborough School District Administrators that this case study will provide impetus in this direction.

Table A - Defining the Gap: Tyngsborough Public School District Case Study, FY07 -- page 1

	Teaching								
	Class Size			Course Offerings			Instructional Materials Equip. & Tech		
	Current	Found'tn	Add'tnl \$\$	Current	Foundation	Add'tnl \$\$	Current	Foundation	Add'tnl \$\$
Early Childhood Center	PreK			Half time K	Full time K	\$ 131,250	Limited C&S	+ Curric. Supplies & Mat	\$ 7,288
	K 18-20	18-20		0 Music	.4 Music	\$ 15,000	No Tech Support	.5 Tech Paraprofessional	\$ 12,500
Elementary School	G1 - 25	22	\$ 37,500	0 Health	1.5 Health	\$ 56,250	Reduced C&S	+ Curric. Supplies & Mat	\$ 24,586
	G2 - 25	22	\$ 37,500	0 Foreign Lang	1.5 Foreign Lang	\$ 56,250	Outdated texts	+ Textbooks	\$ 21,750
	G3 - 27	22	\$ 37,500	0 Inst Music	1 Inst. Music	\$ 37,500	No Tech Support	1 Tech Para.	\$ 20,000
	G4 - 29	22	\$ 75,000	1 Phys Ed	3 Phys Ed.	\$ 75,000			
	G5 - 29	22	\$ 75,000	0 Math Support	2 Math Support	\$ 76,000			
Middle School	G6 - 25	25		1 Art	1.5 Art	\$ 18,750			
	G7 - 23	25		1 Music	1.5 Music	\$ 18,750			
	G8 - 23	25		11 SPED Teach	13 SPED Teach	\$ 76,000			
				1 Computer	1.5 Computer	\$ 18,750			
High School	G6 - 25	25		0 Health	1 Health	\$ 37,500	Reduced C&S	+ Curric. Supplies & Mat	\$ 7,465
	G7 - 23	25		2 Foreign Lang	4 Foreign Lang.	\$ 75,000	Outdated texts	+ Textbooks	\$ 43,362
	G8 - 23	25		4.5 Special Ed	6 Special Ed	\$ 57,000	No Tech Support	1 Tech Paraprofessional	\$ 25,000
				1 Phys Ed	2 Phys Ed	\$ 34,000			
				.4 Math Support	2 Math Support	\$ 60,800			
District Wide	15-30	17		1 Computer	2 Computer	\$ 38,000	Outdated texts	+ Textbooks	\$ 33,828
				.2 Business Ed	1 Business Ed	\$ 30,000	No Tech Support	1 Tech Paraprofessional	\$ 25,000
				1 Art	2 Art	\$ 34,000			
				8 Science	10 Science	\$ 90,000			
				9 Math	10 Math	\$ 45,000			
				8.2 ELA	9 ELA	\$ 30,000			
				6 Foreign Lang	7 Foreign Lang.	\$ 37,500			
				7 Social Stud.	8 Social Studies	\$ 34,000			
				4.25 Wellness	5 Wellness	\$ 25,500			
				0 MCAS Suppt	1 MCAS Support	\$ 34,000			
TOTALS			\$ 262,500			\$ 1,313,300	0 Tech. Director	1 Tech Director	\$ 65,000
							0 Network Admin	1 Network Administrator	\$ 34,000
							0 Inst. Tech. Teach	1.4 Inst. Tech. Teacher	\$ 37,500
							No Comp Upgrades	Upgrade 1/4 comp/yr	\$ 150,000
							No Server Upgrades	Upgrade 2 Servers/yr	\$ 10,000
							0 Copier Replace	1/5 District Wide/Year	\$ 34,400
				TOTAL Teaching					\$ 551,678
						\$ 1,575,800			

Table A (cont) - Defining the Gap: Tyngsborough Public School District Case Study, FY07 -- page 2

	Other Teaching Services			Guidance, Counseling & Testing		
	Current	Foundation	Add'tnl \$	Current	Foundation	Add'tnl \$\$
Early Childhood Center	0 Media Specialist 0 Lunch Aides	1 Media Specialist 2 Lunch Aides	\$ 19,000 \$ 15,200	0 Social Worker 0.5 Guidance 0 Psychologist	0.5 Social Worker 1 Guidance 0.4 Psychologist	\$ 19,000 \$ 19,000 \$ 26,400
Elementary School	0 Media Specialist 1 Media Para. 0 Lunch Aides	2 Media Specialists 2 Media Para. 6 Lunch Aides	\$ 76,000 \$ 19,000 \$ 45,600	1.8 Nurses 1 Guidance 0 Social Worker 1 Psychologist	2 Nurses 3 Guidance Couns 1 Social Worker 2 Psychologist	\$ 76,000 \$ 38,000 \$ 66,000
Middle School	0 Media Specialist 0 Media Para.	1 Media Specialist 1 Media Para.	\$ 38,000 \$ 19,000	0 Social Worker 1 Guidance	.5 Social Worker 1.5 Guidance	\$ 19,000 \$ 19,000
High School				0 Social Worker	.5 Social Worker	\$ 19,000
District Wide						
TOTALS			\$ 231,800			\$ 301,400

Table A (cont) - Defining the Gap: Tyngsborough Public School District Case Study, FY07 -- page 3						
	Pupil Services			Instructional Leadership + Administration		
	Current	Foundation	Add'tnl \$\$	Current	Foundation	Add'tnl \$
Early Childhood Center						
Elementary School	No MCAS Aft	MCAS Aftersch.	\$8,000	1 Assist. Principal 2 Secretaries	2 Assist. Principal 3 Secretaries	\$ 75,000 \$ 23,000
Middle School	Sports - \$150 Clubs - \$75 No MCAS Aft	No Fees No Fees MCAS Aftersch.	\$40,000 \$10,000 \$8,000	.5 Asst. Princ.	1 Principal	\$ 35,000
High School	Sports - \$380 Clubs - \$75 No MCAS Aft	No Fees No Fees MCAS Aftersch.	\$340,000 \$30,000 \$5,000			
District Wide	.75 Athletic Dir.	1 Athletic Direct.	\$13,750	0 Prof. Dev. Coord 1 Curriculum Coord 0 Assist. Superint	1 Prof. Dev. Coord 2 Curriculum Coord 1 Assist. Superint.	\$ 75,000 \$ 45,000 \$ 85,000
TOTALS			\$ 454,750			\$ 338,000

Table A (cont) - Defining the Gap: Tyngsborough Public School District Case Study, FY07 -- page 4	
Foundation Budget Category	Additional \$ Needed
Teaching	\$ 1,575,800
Instructional Materials Equip. & Tech	\$ 551,678
Other Teaching Services	\$ 231,800
Guidance, Counseling & Testing	\$ 301,400
Pupil Services	\$ 454,750
Instructional Leadership + Administration	\$ 338,000
Total Additional \$ needed to Reach "Foundational Education"	\$ 3,453,428
FY07 Tyngsborough School Budget (no transportation)	\$ 14,435,696
FY06* Tyngs. Health Care Insurance Costs -- School Employees	\$ 2,041,285
FY06* Other Allowable Costs	\$ 397,377
FY07 "Foundation" (est.)	\$ 16,476,981
Total Additional \$ needed to Reach "Foundational Education"	\$ 3,453,428
"Foundational Education" Budget	\$ 19,930,409
DOE Specified Foundation (FY07)	\$ 15,541,437
The Gap: Foundation Budget Shortfall from "Foundational Education" (FY07)	\$ 4,388,972
The Gap: Foundation Budget shortfall as percent of DOE Foundation (FY07)	28%
<i>* FY07 numbers not available until 9/07 so FY06 amounts used</i>	

Appendix

Explanation of Table A – Defining the Gap

Between FY07 Tyngsborough Public Schools Budget and Foundation Education

The State of Tyngsborough Public Schools -- FY07

- 2,255 students, including:
 - 287 students on IEP plans
 - 16 out of district placements
 - 45 students on 504 plans
 - Students from other towns:
 - 14 students in Merrimack Education Coalition’s Special Ed. Collaborative, housed in Tyngsborough’s Schools
 - 27 students from out of town (School Choice)
- One of the first school districts in Massachusetts to be fully accredited across all four schools (budget cuts have forced us to drop our accreditation in all but high school).
- Four school buildings
 - Early Childhood Center (Early Intervention, Preschool, Kindergarten)
 - 238 students
 - Instructional Leadership and Administration
 - One Principal
 - 1.4 Secretaries
 - Teaching Staff
 - 5.5 Preschool Teachers;
 - 5 Kindergarten Teachers;

- 3.4 Special Education Teachers;
- 13.8 Special Education paraprofessionals;
- .5 Title I Teacher;
- 1.1 Speech/Language Pathologist;
- .4 Enrichment Teacher
- Guidance, Counseling and Testing Staff
 - .6 Special Education Team Chairperson;
 - .8 Guidance Counselor/School Psychologist
- Other Teaching Services
 - 1 Nurse
 - .6 Library Paraprofessional
- Items of note:
 - Four half day kindergarten classes, plus three tuition-based (\$280/month) full day classes;
 - Integrated, tuition-based preschool program;
 - Qualifying kindergarten students receive Title I services for ½ of year;
 - Limited music, physical education and art (one teacher delivers a combined music/movement/art program to all 238 students).
- Elementary School
 - Grades 1 thru 5
 - 890 students
 - Instructional Leadership and Administration
 - One Principal;
 - Two .5 Assistant Principals;
 - 2 Secretaries;
 - 1 Receptionist.

- Teaching Staff
 - 33 Classroom Teachers;
 - 11 Special Education Teachers;
 - 1 Art teacher;
 - 1 Music teacher;
 - 1 Computer teacher;
 - 1 Physical Education teacher;
 - 20.8 Special Education Paraprofessionals;
 - 2.5 Reading Recovery/Title I;
 - 2 Speech Teachers.
- Guidance, Counseling and Testing Staff
 - 1 Guidance Counselor;
 - 1 School Psychologist;
 - 1 Special Education Team Chairperson;
 - .7 Behavior Analyst.
- Other Teaching Services
 - 1.7 Nurses;
 - 1 Library Paraprofessional.
- Other Items of Note:
 - Class sizes from 23 in 1st grade to 29 in 4th and 5th grades
 - Students get music, art, physical education, computers, library one time every 6 days
 - Health classes eliminated; DARE program eliminated
 - Library Media Specialist eliminated; two libraries are run by one paraprofessional
 - No music instrument teacher; program currently delivered on voluntary basis by high school band instructor
- Middle School
 - Grades 6 thru 8

- 495 students
- Instructional Leadership and Administration
 - 1 Principal;
 - .5 Assistant Principal;
 - 1.75 Secretaries.
- Teachers
 - 23 Classroom Teachers;
 - 4.5 Special Education Teachers;
 - 13 Special Education Paraprofessionals;
 - 1 Speech Teacher;
 - 1 Computer Teacher;
 - 1 Art Teacher;
 - .4 Band Teacher;
 - 1 Theater Teacher;
 - 1 Physical Education Teacher.
- Guidance, Counseling and Testing Staff
 - 1 Guidance Counselor;
 - .5 School Psychologist;
 - .5 Special Education Team Chair.
- Other Teaching Services
 - 1 Nurse
- Other Items of Note
 - Foreign Language limited to grade 8;
 - No team leaders (part of middle school model);
 - No library media specialist; library locked (opened by teachers when they want to bring class in for research work);

- No health classes;
 - Students must pay \$150 per sport; \$75 per co-curricular activity;
 - Limited stipends for coaches and advisors;
- High School
 - Grades 9 thru 12
 - 609 students
 - Instructional Leadership and Administration
 - 1 Principal;
 - 2 Assistant Principals;
 - 3.5 Secretaries.
 - Teachers
 - 8 English Teachers;
 - 6 Foreign Language Teachers;
 - 9 Math Teachers;
 - 8 Science Teachers;
 - 7 Social Studies Teachers;
 - 5.4 Unified Arts Teachers (Art, Music, Business, Drama, Computer);
 - 4.25 Wellness Teachers;
 - 4 Special Education Teachers;
 - 6.4 Special Education Paraprofessionals;
 - 2 Other Teachers (Work Coop., Alternative School).
 - Guidance, Counseling and Testing Staff
 - 3 Guidance Counselors;
 - .5 School Psychologist;
 - .5 Special Education Team Chair.

- Other Teaching Services
 - 1 Library Media Specialist;
 - .9 Library Paraprofessional;
 - 1 School Nurse.
- Other Items of Note
 - Modified block scheduling used due to teacher shortage;
 - Work internships for grades 11 and 12 (another great solution to teacher shortage);
 - Students must pay \$380 per sport; \$75 per co-curricular activity;
 - Students must pay \$225 per year to park.
- Administrative Office
 - 1 Superintendent
 - 1 Administrative Assistant
 - 1 Superintendent's Secretary
 - 1 Business Manager
 - 1 Assistant to the Business Manager
 - 1 Special Education Director
 - 1 Special Education Secretary
 - 2 Occupational Therapists
 - Contracted Behavior and Physical Therapists
 - 1 Supervisor of Buildings and Grounds
 - 1 Curriculum Coordinator
 - 1 Grant Writer

- .4 Athletic Director
 - 1 Athletic Trainer
- 1 Tech Administrator
- Other Items of Note
 - No Assistant Superintendent
 - No Professional Development Coordinator
 - No Technology Director
 - No Network Administrator

Explanation of Foundational Yardsticks Used

To determine the educational components that must be added so that Tyngsborough Public Schools can deliver a “Foundational Education” in Massachusetts, educational yardsticks were used and compared to the District’s offerings. These yardsticks are based on DOE Frameworks and DOE and national education guidelines. The categories align with the categories in the foundation budget formula.

1. Teaching

- a. Class Size: DOE guidelines for class size are 22 for elementary, 25 for middle school and 17 for high school classrooms.
- b. Course Offerings
 - Health Classes throughout K-12: This follows DOE recommendations for Health and Wellness
 - Increased Physical Education classes: This follows DOE recommendations to increase offering to two physical education classes per week;
 - Foreign Language: DOE recommends starting foreign language at elementary level and throughout K-12, increasing to two languages in high school;

- Math Support in Elementary and Middle School: Supports DOE recommendations for increased math focus at all levels, enabling higher level mathematics at the high school.
- Special Education: Inclusion of students on IEP and 504 plans is emphasized in Tyngsborough Public School, as it is the District's belief that learning alongside typically learning students provides the best academic and social environment for these students. The number of SPED teachers and paraprofessionals is dependent upon the number, type and severity of the learning, social or physical development issues faced by students on IEP and 504 plans.
- Music and Art: Supports DOE curriculum frameworks state that "an effective arts curriculum provides a sequential program of instruction in dance, music, theatre, and visual arts for all students beginning in preschool and continuing through high school."

2. Instructional Materials Equipment and Technology

- a. Curriculum Supplies & Materials and Textbooks: There are no guidelines for this. This line item has been cut every year for each of the schools as part of the annual budget cuts that have been made. The FY01 budget amount was used as the "foundation" amount and the additional money required is the difference between FY07 budget and FY01 budget plus 2% inflation per year, or 10.4% total over 6 years.
- b. Technology Support: According to the "Local Technology Plan Guidelines for School Year 2007/2008-2010/2011 – DRAFT", school districts shall have:
 - a district-level technology director – Tyngsborough currently does not have this position – cut for FY07 budget;
 - one full time equivalent instructional technology teacher per 60-120 instructional staff – for Tyngsborough (153 teachers) – this would mean 1.4 instructional technology teachers;
 - staff dedicated to data management and assessment – Tyngsborough has one person filling this function (Technology Administrator) ;
 - a network administrator – Tyngsborough currently does not have this position;
 - at least one full time equivalent person to support 200 computers – with around 675 computers available for student use across the school district, this would mean 3.5 technical support personnel
- c. Technology Upgrades: According to the "Local Technology Plan Guidelines for School Year 2007/2008-2010/2011 – DRAFT", school districts shall have an average ratio of fewer than five students per high capacity, Internet-connected computer.

- The Department defines a high-capacity computer as a computer that has at least 256 RAM and either a Pentium 4 processor or a Macintosh G4 processor. The Department also refers to these as “Type A” computers.
- The Tyngsborough Public School District has a very limited number of “Type A” computers – none at its Early Childhood Center; none at its Elementary School; 12 at the Middle School; and two labs at the high school. Over 600 personal computers need to be upgraded throughout the school district in order to comply with the Department’s guidelines. This foundation plan puts an annual budget in place that upgrades 1/3 of all computers every year so that the District can progress toward compliance and maintain that compliance on an ongoing basis.

3. Other Teaching Services

- a. Library Media Specialists: Successive budget cuts have left Tyngsborough Public Schools with only one librarian/media specialist at the high school (required to maintain accreditation). According to the DOE Document, “Standard for School Library Media Centers of the Commonwealth of Massachusetts, there should be one full time certified media specialist at every school; schools with fewer than 400 students shall have one full time certified media specialist and one full time support staff with broad based skills to support the library media specialist; schools with over 400 students, up to 800 students shall have one full time certified media specialist and two full time support staff; schools with over 800 students shall have 2 full time certified media specialists and two full time support staff.

4. Guidance, Counseling and Testing

- a. Social Workers: No guidelines found for the number of social workers needed in public schools. The need is clearly there. Numbers we used were conservative, adding up to 2.5 social workers across four schools and 2,250+ students;
- b. Guidance Counselors: The Massachusetts Model for Comprehensive School Counseling Programs (10/06) specifies one guidance counselor for every 250 students.

- 5. Pupil Services – five years of successive budget cuts have reduced budget allocation for pupil services including middle and high school athletics and co-curricular activities as well as after school MCAS remediation services and late busses. Participation in co-curricular sports and clubs is as important to students’ development as academics. In recognition of this fact, public school districts cannot force students to pay for extra-curricular activities. Tyngsborough Public Schools continue to rely on the voluntary payment of athletic and co-curricular fees in order to continue to deliver these important aspects of public education. What was once considered a temporary solution has now been in place for four years. Initial high school athletic fees of \$150 per sport have now evolved to \$380 per sport. The foundational education budget on Table A restores extra-curricular activities to a true part of public education.

6. Instructional Leadership and Administration: No guidelines found here either, but a look at FY06 per pupil expenditures by function shows Tyngsborough at \$553.93 per pupil while the state average is \$738.10. Table A restores only the most necessary leadership and administration elements.