



The Bottom Line Report

**Understanding Rising Special Education Costs in Massachusetts
and the Real Cost to State Taxpayers**

December 2012



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- Executive Summary –

Between 2006 and 2012, special education costs in Massachusetts increased by 56% compared to 36% for all public education. School budgets are being stretched and families of children with severe disabilities, who require intensive and costly services, are sometimes blamed for taking more than their fair share of the school budget. As the educators of students with the most severe disabilities, C766 schools are also often blamed for what appear to be high tuition prices.

This report compares the structure of special education costs in public schools, collaboratives and C766 schools, where there are substantial differences regarding the severity of student disability, staff to student ratios, the length of the school year and staff compensation. The cost comparison also includes all costs to the state taxpayer, who subsidize school districts and collaboratives by hundreds of millions a year for teacher retirement pensions and school building construction. The cost comparison demonstrates that C766 school costs are 35% lower than that of public schools and collaboratives, after the differences in staff compensation, length of the school year and hidden costs to taxpayers are considered.

Bottom Line Findings

1. Public school and educational collaboratives administrators erroneously claim that they can serve students at less cost than a C766 school can. This assertion is not based in fact and does not consider hidden costs to the taxpayer, differences in the severity of student disability, staff to student ratios and the length of the school year.
2. It would cost public school districts \$80,000 per pupil, or \$20,000 a year more, to provide the same level of services of a typical C766 day school at a cost of \$59,000.
3. The only way in which a student could be served at less total cost by a public school or collaborative is by providing less service to the student.
4. Public school and collaborative salaries are generally 44% higher than C766 school salaries.

5. Massachusetts state taxpayers pay public school and collaborative fringe benefit costs at a rate of 36.72% of wages, compared to 23.54% for C766 schools.
6. Taxpayers subsidize public school district teacher and other professional educator pension payments by \$107 million a year. This is a cost to the taxpayer which is not paid by school districts.
7. Taxpayers subsidize public school occupancy costs by \$730.5 million a year. Again, this is a cost not paid by school districts
8. Taxpayers subsidize collaborative teacher pension payments by an estimated \$8.5 million a year.
9. Collaboratives have an unfunded actuarially accrued retirement benefit liability to retirees which could be as high as \$224 million.
10. There is little meaningful public accountability or transparency for collaborative costs.
11. In addition to educating students at significantly lower costs than public schools and collaboratives, C766 schools:
 - a. Tuition rates include all costs to the taxpayer
 - b. Receive no annual subsidy from the Commonwealth's taxpayers
 - c. Contributed \$25.3 million in private funds to subsidize public education in FY '11 and over \$300 million since 1990
 - d. Have no unfunded liability for retiree benefits
12. C766 schools attract over 1,600 students from all over the U.S. and the world due to their unparalleled expertise in providing highly specialized education and treatment. The tuition payments for these students make a net contribution of \$189 million each year to the state economy – not derived from state taxpayers.

Recommendation – Lower Special Education Costs and Improve Services

Massachusetts taxpayers deserve to know the real, total cost of providing special education services to our most disabled students. This report demonstrates that C766 schools costs are 35% lower than public school and collaborative costs. At the same time, C766 schools compete successfully on a national and global basis for students, who are attracted to the advanced expertise and high quality services. C766 schools should be allowed and encouraged by the state legislature and the Department of Elementary and Secondary Education to expand their services and work in partnership with public school districts to provide in-district, substantially separate and inclusive programs to students with special needs. These new programs could improve services and lower costs and would benefit both students and state taxpayers.



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Understanding Rising Special Education Costs In Massachusetts and The Real Cost to State Taxpayers

Introduction

Every spring, too many town meetings have become battle zones over the rising cost of special education. Between 2006 and 2012, special education costs in Massachusetts increased by 56% compared to 36% for all public education.¹ School budgets are being stretched and families of children with severe disabilities, who require intensive and costly services, are sometimes blamed for taking more than their fair share of the school budget. As the educators of students with the most severe disabilities, C766 schools are also often blamed for what appear to be high tuition prices. However, a great deal is not known about how special education costs are structured in different public and private school settings and that costs are increasing due to shifts in medical care and cultural norms that are resulting in more children with severe disabilities.

While rising special education expenditures have directed considerable attention to special education costs, little has been done to do an accurate, “apples-to-apples”, comparison of costs across different types of special education settings, namely - costs in public school in-district programs, educational collaboratives and C766 school programs. Educational collaboratives have erroneously claimed that they save school districts millions of dollars in special education,² by educating students in collaborative programs instead of C766 schools. As this report will show, the opposite is true. When all factors and all costs to the taxpayer are considered, C766 schools are much more cost efficient. In fact, the only way a public school or collaborative can serve a student at less cost, is when the student receives less service.

This report will compare the structure of special education costs in public schools, collaboratives and C766 schools and will demonstrate that state taxpayers actually pay more money for less service when a student is placed in a public school or collaborative program compared to the same program in a C766 school. Understanding the significant differences in costs between C766 schools and public schools or collaboratives is also very important to understanding the real cost of special education to the taxpayer.

¹ Massachusetts Department of Elementary and Secondary Education (DESE), Special Education Direct Expenditure Trends: <http://finance1.doe.mass.edu/statistics/>

² Massachusetts Organization of Educational Collaboratives (MOEC), *Educational Service Agencies in Massachusetts*, January 2009 <http://moecnet.org/wp-content/uploads/2008/05/esasinma-moec-jan2009-1.pdf>

The specific issues addressed in this report will include:

- Trends resulting in increases in the number of children with severe disabilities
- The determination of student Individual Education Programs (IEPs) and the placement of students with disabilities in educational programs
- A comparison of costs in public schools, collaboratives and C766 schools

The Increasing Number of Children with Severe Disabilities

In 2001, the Massachusetts Association of School Superintendents was the first to bring attention to the phenomena of the increasing numbers of children with severe disabilities and the impact on special education costs.

The increases in severity in the special education population and the increases in cost may be due primarily to advances in medical technology. Over the last twenty years medical advances have enabled many children with disabilities to survive who would not have done so in the past. Many others are now to attend school rather than being cared for in institutional settings. Due to these advances, survival of children at a birth weight of less than 3.3 pounds has increased from 52% twenty years ago to 73% ten years ago to 90% today. Multiple studies have shown a close correlation between prematurity/low birth weight and subsequent developmental disorders. The actual number of children with disabilities resulting from prematurity, therefore, has increased markedly over the past twenty years. Medical advances have also impacted children who are born asphyxiated and children with epilepsy, autism, and numerous other disabilities so that these students are capable of attending public schools.³

Due to a variety of factors, there has been a dramatic increase in the numbers of infants who are surviving low birth weight and premature births, but they survive with a much higher risk of severe disability. A recent UN report, *Born Too Soon*, found that the U.S. has a higher rate of preterm births than Somalia and 130 other countries.⁴ Since 1990, preterm births increased 40% in Massachusetts compared to 17% nationally and low birth weight births increased 32% compared to 17% nationally. At the same time, however, advances in neonatal medicine reduced the infant mortality rate 30% in Massachusetts vs. 26% nationally.⁵ As a result, there are now more children who are surviving preterm birth, but with a much greater risk of significant disability.⁶

³ Massachusetts Association of School Superintendents, *The Impact of Special Education Reform*, March 2001 <http://www.massupt.org/policy/fileDisplay.cfm?file=327>

⁴ United Nations, Every Woman Every Child, *Born Too Soon, A Global Action Report on Premature Birth*, 2012 <http://www.everywomaneverychild.org/>

⁵ March of Dimes, Peristats <http://www.marchofdimes.com/peristats/Peristats.aspx>

⁶ Dag Moster, Rolv Terje Lie and Trond Markestad, Long-Term Medical and Social Consequences of Preterm Birth (2008) *New England Journal of Medicine*

Since 1992, there has been an increase of over 22,000 children in Massachusetts with moderate to severe disabilities enrolled in early intervention services,⁷ while the 0 - 3 population in our state declined by over 30,000. School districts are also reporting an astonishing increase in severe disabilities. From 2003 to 2012, the number of students with autism, health, communication and neurological impairments increased by 33,536 while specific learning disabilities decreased by 30,423. During the same time period, the total special education population only increased by 8,475 students.⁸

Table 1: DESE, Enrollment of Students by Disability, School Years 2003 - 2012

YEAR	TOTAL	SPED					COMMUNICATION	DEVELOP DELAY
		TOTAL	HEALTH	AUTISM	NEUROLOGICAL			
2003	993,463	155,204	4,195	4,080		3,638	20,474	12,534
2004	980,818	154,391	5,383	4,876		4,316	20,942	13,839
2005	975,911	157,108	6,632	5,467		4,562	23,416	14,753
2006	983,439	160,752	8,019	6,477		5,199	25,519	15,405
2007	979,851	163,396	9,382	7,521		5,577	27,045	15,866
2008	973,953	164,298	10,539	8,668		5,990	27,499	16,434
2009	970,059	166,037	11,525	9,793		6,481	28,701	16,809
2010	967,951	164,847	12,758	10,781		7,013	28,932	17,357
2011	966,395	164,711	13,966	12,058		7,436	29,173	17,635
2012	964,198	163,679	15,304	13,228		7,947	29,444	17,552
Inc(Dec)	-29,265	8,475	11,109	9,148		4,309	8,970	5,018
Inc(Dec)	-2.95%	5.46%	264.82%	224.22%		118.44%	43.81%	40.04%
YEAR	SENSORY VISION IMPAIRMENT	SENSORY HARD OF HEARING	PHYSICAL	EMOTIONAL	MULTIPLE DISABILITIES	INTELLECTUAL	SLD	SENSORY DEAF/ BLIND
2003	451	1,030	1,235	12,695	4,897	11,157	78,480	338
2004	473	1,127	1,199	13,304	5,193	12,493	70,862	384
2005	604	1,347	1,277	13,362	5,536	12,175	67,672	305
2006	546	1,178	1,342	13,630	5,006	12,245	65,922	264
2007	560	1,234	1,470	13,864	5,107	11,799	63,734	237
2008	555	1,286	1,547	13,724	4,912	11,228	61,697	219
2009	544	1,194	1,603	13,966	4,780	10,968	59,454	219
2010	582	1,233	1,537	13,849	4,667	10,682	55,263	193
2011	592	1,226	1,460	13,964	4,726	10,374	51,900	201
2012	591	1,221	1,390	13,932	4,694	10,155	48,057	164
Inc (Dec)	140	191	155	1,237	-203	-1,002	-30,423	-174
Inc (Dec)	31.04%	18.54%	12.55%	9.74%	-4.15%	-8.98%	-38.77%	-51.48%

⁷ Massachusetts Department of Public Health, Early Intervention Services

⁸ DESE, Enrollment of Students by Disability, <http://www.doe.mass.edu/infoservices/reports/enroll/default.html?yr=sped1112>

Obesity, diabetes, binge drinking, smoking, pregnancies at advanced age, fertility treatments and use of elective caesarean deliveries have all contributed to the problem. Unfortunately, Massachusetts leads the nation in the proportion of births to women between the ages of 35 and 50.⁹ These are all factors which can all be mitigated with changes in public health and medical practice and hospitals in Massachusetts are now trying to limit caesarean births to those that are medically necessary.¹⁰

The Determination of Student Individual Education Programs (IEPs)

As public school districts work to keep pace with the significant changes in the nature and characteristics of the disabilities of their students, it is the district's IEP (Individualized Education Program) Team that evaluates the student and determines the student's placement. Under state and federal special education laws, C766 and IDEA, public school districts have the responsibility to identify students who are unable to make effective progress in the school due to their disability. Determination of student eligibility for special education services is up to the district's IEP Team. The steps involved are outlined by the DESE *IEP Process Guide*:

*The Team has **three** important and integrated activities to manage. Each is of equal importance and interdependent on the quality of the other.*

1. *Eligibility determination: The Team must first determine whether a child is eligible for special education services. This determination starts with the careful and thorough evaluation of the child in all areas of suspected disabilities.*
2. *Development of the IEP: Next, if the Team has found the student eligible for special education, the elements of an Individualized Education Program (IEP) must be discussed, planned and then captured in a written document. Input from parents, the student, general educators and special educators is necessary to complete this service contract that sets high expectations for a student and then guides that student's special education services for the next year.*
3. *Placement decision. Once all the elements of the IEP are determined, including services and supports, a placement decision must be made. The first placement option considered for each student with a disability must be the general education classroom with the provision of needed aids and services. The law requires that students do not get placed outside of the general education classroom unless their disability requires another setting. The Team must always consider the unique needs of the student before making the final placement determination.¹¹*

There can be no mistake that it is the public school district Team which makes the decision about the types and amounts of services which should be included in the IEP based on the unique needs

⁹ Boston Globe, December 12, 2010

¹⁰ Boston Globe, October 8, 2012 <http://bostonglobe.com/lifestyle/health-wellness/2012/10/07/maternity-hospitals-push-reduce-section-rate-and-medical-interventions/ehvg1P25QopauzoVUeTlzH/story.html>

¹¹ DESE, *IEP Process Guide* <http://www.doe.mass.edu/sped/iep/proguide.pdf>

of the student. It is the unique needs of the student and the severity of their disability which determine the intensity of services that are written into the IEP.

The Placement of Students with Disabilities in Educational Programs

Prior to the enactment of Chapter 766 in 1972, children with disabilities could be excluded from public school. A child with a disability could not count on getting to go to school with friends and neighbors. As a result, both state and federal special education law now require that each student with a disability be educated in the general education classroom, unless the severity and nature of the child's disability makes it impossible to provide an appropriate education in the general education classroom.

Section 1 of Chapter 71B (Chapter 766) defines the general education classroom as the:

“Least Restrictive Environment”, the educational placement that assures that, to the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services, cannot be achieved satisfactorily.

The DESE IEP Process Guide further states:

Teams must first consider if the eligible student may be served in the school and classroom the student would attend if not disabled. Other options should be considered only when the nature and severity of the disability would prevent satisfactory achievement within the general education environment. An in-district placement should always be considered and recommended before an out-of-district placement is considered.

School district IEP Teams consider a range, or continuum, of service and placement options when determining a student's placement. The continuum includes the regular classroom with special education support services or services provided out of the classroom for portions of the school day, substantially separate programs, separate day programs or residential school programs. Both educational collaboratives and C766 schools operate separate day programs approved by DESE and C766 schools also operate DESE approved residential school programs. Children placed in separate day or residential programs, in which there are only students with disabilities, are considered to be placed in an out-of-district program, regardless of whether it is operated by a collaborative or C766 school.

Because of the presumption in state and federal law towards the inclusion of the student in general education, students in C766 schools are the most disabled and disadvantaged in the Commonwealth with disabilities such as autism, mental illness, developmental, physical and multiple disabilities. It is only when a public school district is unable to provide an appropriate

program within the school district, that the district will enroll the student in a C766 approved private special education school. C766 schools enroll approximately 5,800 students from Massachusetts cities and towns and another 1,400 from other states and countries.

The Bottom Line – A Review of the Cost Issue

The Operational Services Division (OSD) of the Executive Office of Administration and Finance oversees and regulates the financial operation of C766 schools, including the setting of school tuition rates. Due to the fact that the students in C766 schools are severely disabled, the program of services the students require can be costly. In fiscal year 2011, C766 day school tuition rates ranged from \$32,000 to \$125,000, with an average rate of \$59,000. Residential school tuition rates ranged from \$57,000 to \$295,000, with an average of \$169,000.

With the FY '11 state average public school per pupil expenditure (per pupil foundation budget) at \$9,500, it is somewhat understandable that public school officials express shock at C766 school tuition rates. It is fairly common for public school administrators to say that they can educate a student more cheaply within the public school or in a program operated by an education collaborative. This assertion is not based in fact and leads to inaccurate, anecdotal comparisons between the total cost, or tuition rate, of educating a student in a C766 school, public school or educational collaborative.

Anecdotal cost comparisons based solely on the tuition rates of C766 schools or the per student cost of a program operated by a school district or education collaborative are overly simplistic and inaccurate. No attempt is made to acknowledge the differences between programs such as the severity of student disability, the days of operation, the amount of services provided to students or differences in staff-to-student ratios. For example, public school and collaborative programs operate for 180 days, while C766 day schools operate from 180 to 220 days, with an average school year of 207 days. In addition, there are hidden costs to the taxpayer that public school and collaborative program costs do not include, such as state funded pensions, retiree health insurance and state subsidized school building costs – all funded at state taxpayer expense.

Despite the inadequacy of anecdotal cost comparisons, legislators, school committees and other policy makers across the state are lead to believe that students will be adequately served, and the taxpayer will be relieved of unnecessary costs, if students are kept in-district. In fact, C766 school costs are substantially lower than those of public school districts and more services can be purchased for fewer taxpayer dollars in a C766 school than in a public school or education collaborative. The only way that the same student might be served at less total cost in an in-district or collaborative program, is if the student is given less service. There is a clear need for an accurate analysis and comparison of the costs of public and private special education programs to provide policy makers with a factual basis on which to make their decisions.

An “Apples-to-Apples” Cost Comparison

C766 school managers have known for a long time that their costs are lower than those of public schools. They only have to compare the salaries of their teachers and other staff to those of their local school districts to see the difference. The average public school teacher salary in FY'11

was \$70,340.¹² In contrast, the average teacher salary for C766 schools for FY '11 was \$44,635¹³ – a difference of \$25,705.

To make the comparison “apples-to-apples”, however, requires an adjustment for the difference in the length of the school year. Public schools and collaboratives have a 180 day school year, while the average C766 day school year is 207. Some C766 day schools operate as long as 250 days. When the difference in the amount of time is calculated, public school teachers make over \$36,000 more than C766 school teachers.

Table 2: Comparison of Teacher Average Salaries Adjusted for Length of School Year

	FY '11 AVERAGE TEACHER SALARY	HOURS WORKED PER YEAR *	COST PER HOUR	COST DIFFERENCE PER TEACHER
PUBLIC SCHOOLS	\$70,340	1,080	\$65	
C766 SCHOOLS	\$44,635	1,242	\$36	
DIFFERENCE	\$25,705	162	\$29	\$36,256
* Public school year = 180 days x 6 hrs. per day				
C766 school year = 207 days x 6 hrs. per day				

But –what about all of the other costs that account for the high tuition rates of C766 schools? What accounts for the average FY '11 C766 school day school tuition rate of \$59,000? These are fair questions, which can be answered and another question should also be asked – what would it cost to provide the same services in a school district or educational collaborative?

maaps set out to answer these questions by creating a budget for a typical classroom in a C766 day school, with costs for salaries and benefits of teachers, therapists, classroom supplies, building costs, administration, etc. We then compared those costs to those of a public school district. This classroom cost model comparison, with the same student and the same length of school year, is a true, “apples-to- apples” comparison of costs. It demonstrates that it would cost state taxpayers over \$20,000, or 35% more, if the same services were provided a public school district.

Cost Data Sources and Method of Determining School Costs

It is important to understand the sources of the cost data used in the cost comparison and the methods used for calculating expenses such as staff salaries, classroom supplies - and those hidden costs for expenses such as pensions, retirement benefits and state subsidies for school buildings.

¹² DESE, 2010-2011 Teacher Salaries Report, http://profiles.doe.mass.edu/state_report/teachersalaries.aspx

¹³ **maaps**, FY '11 UFR Reports, 94 provider organizations operating 166 C766 approved programs

Determining costs for C766 schools was relatively easy and straightforward. The Operational Services Division (OSD) has the responsibility for overseeing and regulating the costs and tuition rates of C766 schools. Each school is required to file an extremely detailed, audited financial statement each year called the Uniform Financial Statements and Independent Auditor's Report, or UFR.¹⁴ The accounting rules and method of classifying, recording and reporting costs is standard for all C766 schools. This means that revenue and expenses are all reported in the same way by all C766 schools and that costs can be compared across schools.

Provider organizations and C766 schools also have to report all personnel in staff positions according to standard staff position definitions contained in OSD's UFR Audit and Preparation Manual.¹⁵ It is very important to note that because cost and personnel data are reported in the same document, the UFR, with standard rules and definitions across all provider organizations, it is possible to compile and compare costs across all provider organizations in a consistent and accurate manner. It is also important to note that the UFRs of all C766 school provider organizations are available for immediate review by the public on the OSD website at: <https://ufr.osd.state.ma.us/home.asp>. The standardization of financial reporting and the transparency of the UFR provide a significant level of accountability to the public, legislators and policy makers.

Each year, **maaps** works with KDSA Consulting, LLC, which downloads and compiles the UFR of each provider organization approved by DESE to operate a C766 school. For FY '11, the fiscal year used for the cost comparison, the UFRs of 94 provider organizations were available, containing cost data on 166 C766 school programs. The UFRs of four provider organizations were not available. The UFRs were used to determine average salaries and benefits for all staff, classroom material costs, occupancy costs, teacher to student ratios, administrative expense and all other cost components in the budget for the classroom model.

Determining costs for public school districts was not as easy or straightforward. **maaps** worked with consultant Thomas Collins, previous DESE Director of School Finance, to understand the available DESE data and calculate public school costs. Public school districts report cost data to DESE each year in the End of Year Report (EOYR). Districts are required to use a standard chart of accounts and the same rules for accounting and cost allocation.¹⁶ The EOYRs for each school district are available for viewing on the DESE website. DESE uses the cost data reported on the EOYRs to produce the very informational and instructive Per Pupil Expenditure Report¹⁷ which compares per pupil, or per student, expenditures across all school districts. Unfortunately, school districts report personnel data on a completely different report called the Education Personnel Information Management System (EPIMS).¹⁸ The two different data reporting systems, EOYRs and EPIMS, do not correspond to each other and it is not possible to

¹⁴ Operational Services Division, Information and Resources on Uniform Financial Reports, <http://www.mass.gov/anf/budget-taxes-and-procurement/procurement-info-and-res/conduct-a-procurement/human-soc-serv-policies/information-and-resources-on-the-uniform.html>

¹⁵ OSD, UFR & Audit Preparation Manual, <http://www.mass.gov/anf/docs/osd/ufr/ufr2012.pdf>

¹⁶ DESE, End of Year Financial Report, <http://www.doe.mass.edu/finance/accounting/eoyr/>

¹⁷ DESE, Per Pupil Expenditure Report, <http://finance1.doe.mass.edu/statistics/>

¹⁸ DESE, Education Personnel Information Management System, <http://www.doe.mass.edu/info/services/data/epims/>

calculate average salaries for various staff positions across the state. An exception to this problem has been provided by DESE for teacher salaries and personnel data and is published on the Department's website.¹⁹ However, the same cannot be said for any of the other personnel positions in public school districts across the state. DESE is unable to calculate exact statewide average salary data for any staff position other than teachers. DESE also does not have data available on the per pupil or per classroom costs paid by taxpayers for pensions, other post-retirement benefits such as health insurance or school building assistance.

To estimate average salaries for staff positions other than teachers, **maaps** first gathered the data on full time equivalent staff from each school district in categories pertinent to special education from the DESE web site.²⁰ Then school committee expenditures for staff salaries were extracted from the FY'11 End of Year Report. Since the report isn't posted on the DESE website, a special request was made for the data. The staff and salary data for each district were then matched in each category. This match was made by consulting the DESE Chart of Accounts.²¹ DESE provided assistance for some of the staff categories.

The next step was important to assuring as much integrity to the calculation of average salaries as possible given the limitations of the two different DESE databases. Each school district's data were eliminated where either the full time equivalent (FTE) staff or the salary was absent. Then, the average salary for each category in each district was calculated and eliminated in the cases where the average salary was implausibly high or low. Finally, the total of the salary and staff in each category for the remaining district was summed and used to calculate the average salaries. The elimination of those districts that did not have both salary and personnel information, or for which average salaries were implausibly high or low, means that the number of school districts for which average salaries could be calculated varied for each position. Appendix A provides a summary of the number of districts and full time equivalent (FTE) staff that could be used to calculate the average salaries for each staff position included in the classroom cost model.

It should be noted that the calculation of salary averages were not possible for every staff position in special education. For example, staff salaries for occupation therapists, physical therapists, audiologists, speech pathologists, recreations specialists, rehabilitation counselors and peripatologists are all reported by school districts under one EOYR cost code, 2320-01. Therefore, it was only possible to calculate one average salary, \$68,636, for all of these staff positions as a group.

It is important to state that every step was taken to ensure the accuracy of the salary averages; however, the salary averages are estimates. **maaps** would welcome any suggestions for alternative methodologies. We believe that it is important for the public and taxpayers to have access to complete and accurate information about the real cost of special education services.

The next step in the cost comparison was to estimate the total cost to the taxpayer for school district employee fringe benefits: pension, health and other employee insurance and other post-employment benefits, such as health insurance. Many of these costs are not paid directly by

¹⁹ DESE, Teacher Salaries Report, http://profiles.doe.mass.edu/state_report/teachersalaries.aspx

²⁰ DESE, Staffing Age Report by Full-time Equivalents, http://profiles.doe.mass.edu/state_report/agestaffing.aspx

²¹ DESE, Chart of Accounts – Criteria for Financial Reporting, <http://www.doe.mass.edu/finance/accounting/eoy/>

school districts, but are paid by Massachusetts taxpayers. For example, it is estimated that the Commonwealth contributes \$107 million a year directly to the MTRS. Appendix B provides a step-by-step description of the method used to determine the estimated fringe benefit percentage of 36.72%. It is instructive to note that a national study of public school district employee fringe benefits estimates the percentage nationally at 32%.²²

School district occupancy expense is another cost area which is subsidized extensively by the state taxpayer and is not paid directly by school districts. Appendix C provides a step-by-step description of the method used to estimate per teacher, which is a good proxy for per classroom, costs for school construction and school maintenance. The Massachusetts School Building Authority (MSBA) provided \$730.5 million in FY '11 to school districts in the form of local aid to offset school construction costs. This information was obtained from MSBA in a special information request.

The Bottom Line – A Comparison of Classroom Costs

The cost comparison illustrated in Table 3 is based on a typical classroom in a C766 day school. The object of the comparison is to show what the costs are that comprise an intensive, therapeutic array of services and compare the differences in cost between C766 schools and public schools.

The comparison is based on the follow premises:

1. The FY '11 average tuition rate for all C766 day schools, which equals \$59,135
2. The FY'11 average C766 day school year of 207 days vs. 180 public school year
3. The length of the school day of 6 hours in both C766 schools and public schools
4. The C766 school average teacher to student ratio of 1 teacher to 4 students in a classroom

The cost comparison clearly demonstrates that total classroom expenses in C766 schools are significantly lower than in public school districts, with the primary cost differences in staff salaries and fringe benefits and the length of the school year. As can be seen, public school salaries are 44% higher. Another way to consider the difference in staff compensation would be to imagine that public school teachers were all asked to take a \$25,700 cut in pay and work a month longer. The difference in employee benefits is even more striking. When all of the costs to the taxpayer are considered, including the costs paid directly by the Commonwealth on behalf of school districts, fringe benefit costs are 125% higher.

²² Costrell, Robert, "Teacher Retirement Benefits", *Education Next*, Spring 2009 <http://educationnext.org/teacher-retirement-benefits/>

Table 3: Comparison of Costs for Separate Day School Classroom

C766 FY '11 Day SCHOOL CLASSROOM			Annual Cost - 207 Day School Year					
FY '11 C766 School Average Day School Year = 207 days								
C766 Day School Year HRs = 6 HR a day x 207 days = 1,242 HRs								
Public School Year HRs = 6 HR a day x 180 = 1,080 HRs								
Pub School Teacher to Student Ratio = 1:14								
FY '11 C766 Teacher to Student Ratio = 1:4 (1,644 Teachers to 7,305 Students)								
FY '11 C766 Average Day School Tuition Rate = \$59,135								
EXPENSE	EXPENSE		C766					
CATEGORY	COMPONENT	DESCRIPTION	FTE	Salary	Cost	Cost	Cost	Percent
				Annual	207 Day	Public	Public	Difference
				School	School	School	School	Over
				Annual	Year	Salary/	207 Day	Pub School
						Cost	Year	
Instruction	Teacher	SpedTeacher	1.00	44,552	44,552	66,818	76,841	72.47%
		Assitant Teacher	1.00	29,689	29,689	23,548	27,080	-8.79%
Related Services	Medical/Therpeutic Services	OT 3 HR WK Per Student	0.40	54,683	21,873	68,636	31,573	44.34%
		Speech 2 HR WK Per Student	0.27	52,980	14,305	68,636	21,311	48.98%
	Guidance	Counselor/social worker						
		Social Worker, LICSW 2 HR WK Per Student	0.27	48,765	13,167	66,234	20,566	56.20%
	Psychological Services	Psychologist, Mental Health Prof.						
		School Psychologist 2 HR WK Per Student	0.27	51,941	14,024	68,914	21,398	52.58%
Health Services	School Nurse	School Nurse 1 HR WK Per Student	0.13	57,859	7,522	67,207	10,047	33.58%
	TOTAL SALARIES		3.34		145,131		208,816	43.88%
Fringe	HR, Finge Benefits	C766 School @23.54%, Pub School @36.72%			34,164		76,677	124.44%
	TOTAL SALARIES AND FRINGE BENEFITS				179,295		285,493	59.23%
Instruct Leadership		C766 in admin costs, Pub Sch, DESE PPE \$830			0	3,320	3,818	100.00%
Instruct Supplies	Classroom supplies	C766, \$4,590,808/4,703 Students= \$976			3,904	1,696	1,950	-50.04%
& IT		Pub School, DESE PPE \$424						
Pupil Services	Meals, Medical, Student	C766-\$4,631,095/4,703 Students= \$985			3,904	2,920	3,358	-13.99%
	Activities, Security	Pub School, DESE PPE \$730						
Prof Develop	Staff training/travel	C766-\$1,317,562/4,703 Students=\$280			1,120	952	1,095	-2.25%
	Travel	Pub School, DESE PPE \$238						
Occupancy/	Facility, maintenace costs	C766-\$30,012,438/4,703= \$6,382			25,528	14,250	17,512	-31.40%
Operations &	Debt retirement and service	Pub School maintenance = \$14,250 per teacher						
Maintenance		Pub Sch debt service = \$1,124 per teacher no addition for 207 school year						
	Total Direct Classroom Costs				213,751		313,226	46.54%
Administration	General Admin	C766 School @11.84%			25,308		9,835	-61.14%
	Superintendent and office	Pub School, DESE PPE Admin 3.14%						
	Instructional Leadership							
	Finance and Business							
	Legal Services							
	Legal Settlements							
	Information Management							
	TOTAL CLASSROOM COSTS				239,059		323,062	35.14%
	PER PUPIL COST @ 4 STUDENTS				59,765		80,765	35.14%

The Bottom Line is - that the real cost of special education to the taxpayer provided in public schools is 35% higher than in C766 schools. It would cost the taxpayer \$20,000 more per student for public schools to provide the level of services offered in the typical C766 day school.

There are, of course, certain types of expenses for which public schools have lower costs. It can be seen in Table 3 that the assistant teachers employed by public schools are paid less than those in C766 schools. This is because the role of assistant teachers in C766 schools is substantially different than in public schools, which use “paraprofessionals” as assistant teachers. The assistant teacher in a C766 schools has a critical role of managing very difficult behavior in students who are aggressive, assaultive and who can pose a danger to themselves and others. If a student is assaulting other students or staff, the assistant teacher must intervene to redirect the student and prevent the assault. If the student poses a direct and immediate danger to themselves or others the assistant teacher might have to restrain the student. The use of physical restraints is a last resort procedure when positive behavior supports have been insufficient and restraints cannot be used as a form of punishment for the student. Staff, like the assistant teacher, who are authorized to use physical restraints, must receive periodic training in nationally recognized restraint training programs.

Another expense area in which public schools have lower costs is administration. According to the DESE per pupil expenditure report, public school administrative costs are 3.14% statewide compared to 11.84% for C766 schools. The difference is due in part due to way in which supervisory staff are classified. For example, the DESE Per Pupil Expenditure report classifies “Instructional Leadership”, which includes Curriculum Director Supervisors and Building Technology as a non-administrative expense. In C766 schools, comparable expenses are classified as administrative. The difference in the administrative expense percentage is also due to the vast difference in economies of scale between the two school systems. The FY ’11 total expenditure of public school districts in Massachusetts was \$13.2 billion compared to total reimbursable expenditures of \$715 million for C766 schools. The reality is that public school administrative costs are spread over a cost base that is enormously larger than that of C766 schools and will, therefore, represent a smaller percentage of total costs. The same can be said for the lower facility, or occupancy costs, in public schools.

A Word About Transportation Costs

It should be noted that the cost of transporting students to C766 schools, public schools and collaboratives is not included in the cost comparison – and for good reason. Under state law, public school districts are responsible for providing student transportation to and from school. Districts can provide transportation as a direct service of the district or under contract with a transportation provider. Transportation costs are incurred and managed by public school districts, not by C766 schools, which have no control over potential cost efficiency measures that could be applied to transportation costs.

The cost of transporting students with disabilities to “out-of-district” placements in C766 schools and collaboratives can be costly, approximately \$215 per day per vehicle.²³ Prior to 2006, little was done by school districts to coordinate and consolidate transportation routes to out-of-district placements. It was not unusual to have students from neighboring towns arriving at the same school, but all in separate vehicles. The lack of coordination by districts cost taxpayers for unnecessary, duplicate transportation routes. Since 2006, **maaps** has worked with a coalition of

²³ Massachusetts Organization of Educational Collaboratives, *Special Education Transportation Report*, 2011-2012

other state organizations in the Special Education Transportation Pilot Project to try to help school districts control transportation costs. For several years, the state legislature funded a demonstration pilot project to test the idea of using educational collaboratives to provide centralized planning and contracting for student transportation routes to reduce unnecessary, duplicate routes. The transportation project has been successful in saving school districts millions of dollars each year - \$7,345,000 in 2010 alone.²⁴ However, school district participation in the transportation project is voluntary and some districts still do not participate. It makes little sense to include transportation costs in a comparison of cost efficiency between C766 schools, public schools and collaboratives, when C766 schools have no control over transportation costs and school districts do not all engage in efforts to control their costs.

The other reason for not including transportation in the cost comparison is that school districts would have to incur the costs to transport students to out-of-district, low incidence, intensive programs designed to serve the students' needs, even if the student wasn't going to a C766 school. As mentioned, the students in C766 schools are the most disabled students in the Commonwealth and require highly specialized education and treatment services. These students require intensive services that could not reasonably be provided in a cost effective manner in every school district or by every educational collaborative. Therefore – public school districts would still have to incur transportation costs to low incidence, intensive programs throughout the state, regardless of who provides the program.

Costs in Educational Collaboratives

So far, this paper has not directly considered costs in education collaboratives and with good reason – no standardized financial data on collaboratives is available to anyone. Until legislation recently enacted by the state legislature in response to the financial mismanagement of the Merrimack Education Collaborative, collaboratives have been largely free of any external financial oversight or accountability. Collaboratives have not been required to provide standard financial reporting to any external regulatory authority. Collaboratives were required to have annual audited financial statements prepared, but these were submitted only to their Boards of Directors. The audited statements of collaboratives do have to comply with Governmental Auditing Standards; however, the form and format of the audited statements were not required to follow a standard form and are left to the devices of the collaborative and their audit firm. There was also no provision for public availability of collaborative financial statements. The lack of public availability and standard reporting format for collaborative financial statements has meant that there is virtually no transparency or accountability for the financial management of collaboratives.

Despite the recent enactment of legislation by the state legislature to require public accountability for collaboratives, DESE proposed regulations to implement the new statute still do not require standard financial reporting.²⁵ Collaboratives will be required to post their financial statements on their respective websites, but the lack of a standard form and format will make it impossible to compare collaborative costs and will not provide for needed public

²⁴ Massachusetts Organization of Educational Collaboratives, Special Education Transportation Task Force Report http://moecnet.org/wp-content/uploads/2009/01/Special_Education_Transportation_Task_Force_Report_2010.pdf

²⁵ DESE, Proposed Educational Collaborative Regulations, <http://www.doe.mass.edu/boe/docs/2012-09/item5.html>

accountability. Additionally, collaborative financial statements will not be available to the public in one, on-line location, as are the UFRs of all C766 schools. The decentralized availability of the collaborative financial statements on each of the collaborative websites will make it very difficult for the public to find, download and analyze financial data.

In an effort to gain an understanding of collaborative financial information, **maaps** reviewed the websites of all 28 educational collaboratives during August of this year. The financial statements of ten collaboratives were found (see Table 4), representing 36% of all collaboratives. However, the statements were in different locations on each website and required extensive searching through multiple layers of the website each time. Two of the financial statements were for fiscal year 2010 and eight reported for fiscal year 2011.

maaps was initially reviewing the financial statements in the hope of being able to gather financial data similar to that found on C766 school UFRs or the DESE End of Year Reports (EOYR). However, the form and format of each financial statement was different, making it impossible to obtain consistent information on staff salaries or costs that could be used in the classroom model cost comparison.

Table 4: Collaborative Costs for Staff Salaries and Benefits

Educational Collaborative	
#	Financial Statements FY '10 – '11
1	Assabet Valley Collaborative
2	Cape Cod Collaborative
3	CAPS Collaborative
4	EDCO Collaborative
5	Greater Lawrence Collaborative
6	Hampshire County Collaborative
7	LABBB Collaborative
8	Lower Pioneer Valley Collaborative
9	Merrimack Collaborative
10	Southern Worcester County Collaborative

maaps was able to find minutes of meetings of collaborative Boards of Directors meetings, in addition to the financial statements, which provided information that revealed some of the nature of collaborative financial management and costs. C766 school managers have often heard that it is common practice for collaboratives to pay staff salaries equal to that of their member school districts. **maaps** was able to verify this practice in the minutes of Board meetings of the Hampshire County Collaborative held on March 24, 2012, the Lower Pioneer Valley Collaborative held on October 21, 2009 and again on January 18, 2012, the READS Collaborative held on November 17, 2011 and the FLLAC Collaborative held on January 12, 2012. In the case of the Lower Pioneer Valley Collaborative Board meeting of January 18, 2012,

the minutes state that the Board voted to increase staff salaries retroactively to the previous July 1st, because some member school districts had increased salaries, thereby changing the salary that should be paid to collaborative employees due to the practice of averaging. If the practice of matching the staff salaries to the average of their member districts is true of all or most collaboratives, then it can be assumed that collaborative personnel costs are very similar to that of public school districts.

It is also known that employees of collaboratives enjoy the same level of fringe benefits as public school teachers. Collaborative teachers participate in the Massachusetts Teachers Retirement System (MTRS) and other employees are able to participate in the Massachusetts State Employee Retirement System. As demonstrated previously in the classroom cost model, personnel salaries and fringe benefits comprise 84% of costs for public school districts. Additionally, collaboratives all operate on the same, public school year length of 180 days, compared to the average 207 day school year of C766 schools. It is also known that it is not uncommon for collaboratives to be allowed to use free or low-cost space in public school buildings. While this practice might lower occupancy costs directly to the collaborative, it should be kept in mind that it does not lower the cost to the taxpayer and that there is still an occupancy cost associated with the physical space occupied by the collaborative program. Given the similarities between public school and collaborative cost structures and components, such as personnel and fringe benefits, it is fair to conclude that it would cost educational collaboratives significantly more to provide the same level and intensity of services included in the classroom model cost comparison.

While reviewing the financial statements of the collaboratives, another aspect of collaborative costs was discovered that should have some bearing on the comparison of costs between C766 schools, school districts and collaboratives. As stated earlier, collaborative teachers participate in the Massachusetts Teacher Retirement System (MTRS). In the financial statements of seven of the collaboratives listed above (Assabet Valley, CAPS, EDCO, LABB, Lower Pioneer Valley, Merrimack and Southern Worcester County) it was found that the Commonwealth is making the pension payments for collaborative teachers. The total payments equaled over \$2.4 million, with an average of \$302,816. If this average is accurate for all 28 collaboratives, it means that the taxpayers of the Commonwealth are paying an estimated \$8.5 million each year, which does not get included in the collaborative tuition costs for students. (See Table 4 below)

Another collaborative cost component found as a result of the review of the financial statements was the cost of funding collaborative retiree health insurance, termed Other Post Employment Retirement Benefit (OPEB). References were found in the statements that collaboratives pay 50% of the retiree health insurance premiums.

Fairly recent changes in the Governmental Auditing Standards have required the collaboratives to begin stating the cost of the employees' OPEB and the unfunded actuarially accrued liability of the collaborative to its retirees. In the financial statements of four of the collaboratives (Cape Cod, LABB, Lower Pioneer Valley and Southern Worcester County), an unfunded total liability of \$40,057,405 was stated, for an average of \$8 million per collaborative. If the financial statements of the four collaboratives are representative of all educational collaboratives, the total unfunded liability is over \$224 million. This raises questions about the potential unfunded

liability exposure to the collaborative member school districts and eventually, the taxpayers of the Commonwealth.

Table 4: Collaborative Pension and Fringe Benefit Costs

Educational Collaborative Employee Pension and Fringe Benefits			
	MTRS Payment by Commonwealth	Annual OPEB Costs	Unfunded Actuarially Accrued OPEB Liability
Total	\$2,422,530	\$1,892,204	\$40,057,405
Average	\$302,816	\$378,441	\$8,011,481
Projected Total Cost for All 28 Collaboratives	\$8,478,848	\$10,596,348	\$224,321,468

One final note on collaborative finances is that the review of financial statements revealed a total of \$33,827 in private fund raising revenue, for an average of \$3,827 for each of the ten collaboratives. Again, if these collaboratives are representative of all 28 collaboratives, the total fund raising revenue would be estimated at \$107,156, or less than enough to fund two teachers per year. As will be discussed in the next section, this is quite a contrast to the annual contribution of over \$25 million a year by C766 schools.

Costs in C766 Schools

As recipients of taxpayer funds in the form of tuition payments for publicly funded students, C766 schools should be accountable to the public. C766 school finances are regulated, monitored and transparent to the public. Almost every aspect of C766 schools is regulated and monitored by both state and federal government, including compensation for top executives. The private, nonprofit sector is also involved in making sure that nonprofit finances and executive compensation are completely transparent to the general public. The Commonwealth also sets strict limits on the amount of executive compensation that taxpayers will reimburse, which is not the case for educational collaborative executive compensation.

The budgets, expenses and costs of C766 schools are subject to intensive oversight and approval by the following state and federal agencies:

1. Massachusetts Department of Elementary and Secondary Education (DESE)
2. Massachusetts Operational Services Division (OSD)
3. Massachusetts Attorney General's Office (AG)
4. U.S. Internal Revenue Service (IRS)

C766 schools must file annual, independently audited, financial reports with OSD, the AG and the IRS. Each report requires exact reporting on compensation and benefits for all top executives. If the annual reports are not filed on time and correctly, the state and federal agencies may impose financial and other penalties.

OSD limits the amount of executive compensation that will be included in the C766 school tuition rate to be paid by taxpayers. For the current fiscal year, the amount is \$153,497.²⁶ The IRS has also established strict rules for the way in which executive compensation may be set by nonprofit organizations:

1. Executives may not be involved in compensation determination.
2. Compensation must be reviewed and approved by the full nonprofit Board of Directors.
3. Compensation must be based on compensation of other comparable nonprofit organizations.
4. The compensation determination process must provide contemporaneous documentation and record keeping.

If the IRS rules are not met, the nonprofit executives are subject to automatic sanctions by the IRS which result in substantial, personal fines and penalties to the organization Executive Director.

The complete finances of C766 schools, including federal tax forms, the Massachusetts Uniform Financial Statement and Independent Auditor's Report (UFR) and executive compensation, are instantly available at no cost to the public through several governmental and private websites:

1. The Massachusetts Operational Services Division: <https://ufr.osd.state.ma.us/home.asp>
2. The Massachusetts Attorney General's Office: <http://www.charities.ago.state.ma.us/>
3. Guidestar.org: <http://www2.guidestar.org/>

In FY '11, C766 schools collected over \$164 million in the form of tuition payments for approximately 1,000 students from other states and countries. Another 673 students also accounted for another \$25 million in the form of private tuition payments from families. Private pay students and publicly funded students from other states and countries frequently pay a higher tuition rate than publicly funded Massachusetts students. The total of \$189 million is a substantial, net contribution to the state's economy and job market, which is not derived from Massachusetts taxpayers. It is also important to note that children from other states and countries choose to attend C766 schools because of the highly specialized education and treatment services that they can find nowhere else.

As mentioned previously, OSD sets the tuition rates that C766 schools may charge local school districts, but has always set rates below the real cost of providing the intensive services required by the students. Each year, C766 schools must find the private funds needed to close the gap

²⁶ OSD, UFR Audit & Preparation Manual, <http://www.mass.gov/anf/docs/osd/ufr/ufr2012.pdf>

between the cost of providing services and tuition payments by public school districts. In FY '11, C766 schools provided over \$25 million in private donations to subsidize public education in Massachusetts. Since 1990, C766 schools have provided over \$300 million in private funds to public education in the Commonwealth.

Conclusion

C766 schools, educational collaboratives and public school districts all have important roles to play in the critical task of providing special education services. Increases in the numbers of students with severe disabilities have increased special education costs due to the need for intensive, costly services. It is the school district IEP Team which determines student eligibility for special education and the IEP determines the types and amounts of services the student is to receive. The increasing costs associated with these IEPs have placed greater scrutiny on how to pay for special education services and school district and collaborative representatives have erroneously asserted that they can provide special education services at a lower cost than C766 schools. These assertions have relied on the fact that there are significant hidden costs to the taxpayer which are not included in public school or collaborative expenses.

Once these hidden costs to the taxpayer are accounted for, however, the classroom cost model demonstrates that C766 school costs are 35% lower than that of public schools and collaboratives. A search for cost data for educational collaboratives has demonstrated that there is a dramatic lack of public accountability and transparency. An analysis of the financial statements of collaboratives that could be found revealed that collaboratives are also subsidized by millions of dollars each year by state taxpayers and collaboratives could have millions in unfunded liability for retiree benefits.

Bottom Line Findings

1. Public school and educational collaboratives administrators erroneously claim that they can serve students at less cost than a C766 school can. This assertion is not based in fact and does not consider hidden costs to the taxpayer, differences in the severity of student disability, staff to student ratios and the length of the school year.
2. It would cost public school districts \$85,000 per pupil, or \$26,000 a year more, to provide the same level of services of a typical C766 day school cost of \$59,000.
3. The only way in which a student could be served at less total cost by a public school or collaborative is by providing less service to the student.
4. Public school, and probably collaborative, salaries are generally 42% higher than C766 school salaries.
5. Massachusetts state taxpayers pay public school and probably collaborative fringe benefits costs at a rate of 36.72% of wages, compared to 23.54% for C766 schools.

6. Taxpayers subsidize public school district teacher and other professional educator pension payments by \$107 million a year. This is a cost to the taxpayer which is not paid by school districts.
7. Taxpayers subsidize public school occupancy costs by \$730.5 million a year. Again, this is a cost not paid by school districts.
8. Taxpayers subsidize collaborative teacher pension payments by an estimated \$8.5 million a year.
9. Collaboratives have an unfunded actuarially accrued retirement benefit liability which could be as high as \$224 million.
10. There is little meaningful public accountability or transparency for collaborative costs.
11. In addition to educating students at significantly lower costs than public schools and collaboratives, C766 schools:
 - a. Tuition rates include all costs to state taxpayers
 - b. Receive no annual subsidy from the Commonwealth's taxpayers
 - c. Contributed \$25.3 million in private funds to subsidize public education in FY '11 and over \$300 million since 1990
 - d. Have no unfunded liability for retiree benefits
12. C766 schools attract over 1,600 students from all over the U.S. and the world due to their unparalleled expertise in providing highly specialized education and treatment. The tuition payments for these students make a net contribution of \$189 million each year to the state economy – not derived from state taxpayers.

Recommendation

Massachusetts taxpayers deserve to know the real, total cost of providing special education services to our most disabled students. This report demonstrates that C766 schools costs are 35% lower than public school and collaborative costs. At the same time, C766 schools compete successfully on a national and global basis for students, who are attracted to the advanced expertise and high quality services. C766 schools should be allowed and encouraged by the state legislature and the Department of Elementary and Secondary Education to expand their services and work in partnership with public school districts to provide in-district, substantially separate and inclusive programs to students with special needs. These new programs could improve services and lower costs and would benefit both students and state taxpayers.

Appendix A

Special Education Classroom Cost Model Staff Positions Calculation of Public School District Average Salaries FY '11

Staff Category	EOYR Cost Code	Reported FY 11 FTE	Reported FY 11 Salary	Calculated FY 11 FTE	Calculated FY 11 Salary	Calculated FY 11 Average	Calculated FY 11 Districts	Calculated FY 11 Lower Limit	Calculated FY 11 Upper Limit
SPED Teachers	2310-01	9,143	730,704,831	5,972	399,008,549	66,818	178	50,000	90,000
Audiologist	2320-01	9							
Occupational Therapist	2320-01	743							
Peripatologist	2320-01	30							
Physical Therapist	2320-01	217							
Recreation Specialist	2320-01	17							
Rehab Counselor	2320-01	6							
Speech Pathologist	2320-01	1,738							
Total 2320-01		2,758	125,928,794	1,299	89,172,211	68,636	114	50,000	90,000
Educational Interpreters	2330-03	46							
Para- Professional	2330-03	22,117							
Total 2330-03	2330-03	22,163	374,174,168	4,466	105,155,429	23,548	68	20,000	35,000
SPEDSchool Adjustment	2710-01	384							
SPEDSchool Social Worker	2710-01	164							
Total 2710-01 SPED		2,087	39,302,702	96	6,371,674	66,234	21	50,000	90,000
SPEDSchool Psychologist	2800-01	688	61,677,991	311	21,439,035	68,914	86	50,000	90,000
Psychiatrist	3200-01	5							
SPED School Nurse	3200-01	124							
Physician	3200-01	7							
Non-SPEDSchool Nurse	3200-01	1,680							
Total 3200-01		1,815	111,166,782	1,613	108,418,611	67,207	287	40,000	100,000

Appendix B

Special Education Classroom Cost Model Calculation of Public School Employee Fringe Benefit Percentage (See Appendix B Table below)

Calculating the Cost of Retirement

Step 1: Extract the summary data from the Massachusetts Teacher Retirement System on January 1, 2011.

MTRS Annual Report	01-Jan-11	% of Normal Cost
Total Normal Cost	650,796,000	83.56%
Expected Employee Contribution	543,832,000	16.44%
Net Normal Cost	106,964,000	

The net normal cost is the amount that the state must appropriate to fund the total cost of pensions, less the employee contributions.

Step 2: Calculate the percentage of net cost to the total cost or 16.44%

Step 3: Apply this percentage to the average salaries in the various staff categories as an estimate of the employee benefits for both professional staff (those covered by the MTRS) and non-professional staff covered by local or county retirement systems.

Calculating Cost of Insurance

Step 1: Collect the expenditures for employee insurance, retired employee insurance and non-employee insurance from the FY 11 End-of-Year Report and from the FY 11 Cherry Sheet (in cases where municipalities are assessed for the cost for retirees). <http://finance1.doe.mass.edu/statistics/>

Step 2: Estimate the fte staff for school maintenance by dividing the FY 11 expenditures for Custodial Services by \$30,000.

Step 3: Combine the estimate from Step 2 with the total staff reported on http://profiles.doe.mass.edu/state_report/agestaffing.aspx

Step 4: Divide the expenditures by the reported and estimated fte staff. http://profiles.doe.mass.edu/state_report/agestaffing.aspx

Calculating Total Cost of Benefits (Retirement and Insurance)

Step 1: Add cost of total benefits (Step 3, retirement cost and Step 4, insurance cost) for each DESE staff category included in classroom model and total for all staff categories.

Step 2: Divide total benefit cost by total average salary for each DESE staff position in classroom model to determine benefit percentage, or 36.72%

Special Education Classroom Cost Model
Calculation of Public School Employee Fringe Benefit Percentage
Appendix B Table

Staff Category	EoY Rpt Cost Code	Average Salary	Retirement Teacher 16.44%	Retirement Other 16.44%	Employee Insurance	Retired Employee Insurance	Annual Days	Total Benefits	% Benefits to Salary
SPED Teachers	2310-01	66,818	10,982		9,584	2,940	180	23,506	35.18%
Audiologist	2320-01								
Occupational Therapist	2320-01								
Peripatologist	2320-01								
Physical Therapist	2320-01								
Recreation Specialist	2320-01								
Rehab Counselor	2320-01								
Speech Pathologist	2320-01								
Total 2320-01		68,636	11,281		9,584	2,940	180	23,805	34.68%
Educational Interpreters	2330-03								
Para- Professional	2330-03								
Total 2330-03	2330-03	23,548		3,870	9,584		180	13,454	57.13%
SPEDSchool Adjustment	2710-01								
SPEDSchool Social Worker	2710-01								
Total 2710-01 SPED		66,234	10,886		9,584	2,940	180	23,410	35.34%
SPEDSchool Psychologist	2800-01	68,914	11,327		9,584	2,940	180	23,851	34.61%
TOTALS		294,150	44,476	3,870	47,920	11,760		108,026	36.72%

Appendix C

Special Education Classroom Cost Model Calculation of Public School Occupancy Costs

Calculating Net Cost of School Construction

Step 1: Collect the expenditures for School Construction Debt Service (Principal and Interest) from the FY 11 End-of-Year Report. <http://finance1.doe.mass.edu/statistics/>

Step 2: Collect the FY 11 local aid payments from the Massachusetts School Building Authority.

Step 3: Calculate the net cost by subtracting the local aid from the debt service expenditure.

Step 4: Calculate the average net cost by dividing the amount from Step 3 by the total fte teachers reported on http://profiles.doe.mass.edu/state_report/programareastaffing.aspx.

Calculating Cost of School Maintenance

Step 1: Collect the expenditures for Operations and Maintenance from the FY 11 End-of-Year Report. <http://finance1.doe.mass.edu/statistics/>

Step 2: Calculate the average cost by dividing the amount from Step 1 by the total fte teachers reported on http://profiles.doe.mass.edu/state_report/programareastaffing.aspx.