Report of the
Lincoln Schools K-8 Task Force

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November 2002

This report is divided into two main sections. Part I provides background on the Lincoln Schools K-8 Task Force and a brief overview of the report. Part II is the body of the report with specific findings and recommendations for each area studied by the Task Force. Part II also includes a discussion for each area that provides detailed data and analysis supporting the findings and recommendations.

I. Background and Overview

A. Creation of the Task Force and its Charge

A lack of appropriate financial oversight and control in the Lincoln Schools led to a large and unanticipated budget shortfall near the end of the academic year 2000-2001. A new business manager was hired and new financial systems were put in place. The School Committee immediately implemented a series of large budget cuts and the Town Meeting approved a $263,000 supplemental appropriation in November 2001.

The vote approving the supplemental budget also confirmed the School Committee's proposal to appoint an independent group of citizens to review the schools. The goal of this review was only in part financial, as the short-term fiscal problems had already been overcome.

Late in 2001, a committee consisting of the Moderator and representatives from the Selectmen, the School Committee and the Finance Committee drafted the charge for the Lincoln Schools K-8 Task Force and conducted interviews to select its members. The charge asked the Task Force to focus on seven specific areas, and the Task Force added school administration and teacher salary and seniority structure. The charge of the Task Force appears as an appendix to this report. In the course of our discussions, certain matters of a longer term nature arose, and we comment on them at the end of this report. The objective of the Task Force has been to provide a publicly available study that will be useful to the Town, the School Committee and the school administration as they plan for the future.

The members of the Task Force are Lesley Allison, Jerry Green (Chair), Ralph Derbyshire (Secretary), Beth Lerman, Katherine McHugh, Jurrien Timmer and David Urion. As originally constituted, Patty Mostue was appointed as the representative of the School Committee. After Ms. Mostue's term on the School Committee ended, there was no permanent representative from the School Committee on the Task Force, although members of the School Committee attended all meetings on a rotating basis. At many of our meetings, a representative of the Finance Committee was in attendance. In addition, key administrators of the Lincoln Schools, including Acting Superintendent Jeanne Whitten, Administrator of Student Services Teresa Watts and later Superintendent Michael Brandmeyer, attended our meetings. The Task Force members wish to thank all these individuals for their invaluable assistance.

B. Work of the Task Force and the Peer Group Survey

The Task Force has met almost every Tuesday evening since late-January 2002 at the Town Offices. Although all of our meetings were open to the public, two meetings were specially designated as open meetings, without a pre-set agenda, so that we could hear from members of

the community about their concerns. The Task Force gave a brief report at the 2002 Town meeting where the plan for our work was described. Several members of the Task Force attended the Schools' Institute Day in the spring, where the full staff of both Lincoln and Hanscom Campuses participated in a daylong series of interactive sessions. The Task Force also held a series of meetings with the faculty in the fall. The Task Force gave two interim reports at regularly scheduled School Committee meetings in Lincoln. In addition, the Task Force gave two interim reports at School Committee meetings in Boston, for the benefit of parents of METCO students, and METCO parents were invited to meet with Task Force members prior to the start of one of the Boston School Committee meetings last spring.

The Task Force, together with other Lincoln organizations, also sponsored two public lectures related to topics in our charge:

September 23, 2002
Mr. Paul Reville, Chairman, MA Education Reform Review Commission
"Current state and future challenges of education reform in Massachusetts – what has nine years of investment yielded?"

October 15, 2002
Dr. David Rose, Co-Executive Director, CAST, Inc.
"The Classroom of the Future: Harnessing technology to address the learning needs of all students"

At our first four meetings we gathered general background information and assigned specific areas of our charge to individual Task Force members for intensive study. At that time, we decided to conduct a survey of public schools in comparable communities. We selected the following towns for this purpose: Boxborough, Carlisle, Concord, Dover, Hamilton-Wenham, Harvard, Manchester, Sherborn, Southborough, Sudbury, and Weston.

From March through May, the main work of the Task Force was to construct this survey. The completed survey is fourteen pages long. It covers every area of our charge and elicits quite a bit of background information that is not available elsewhere. We believe that the level of detailed data collected in this survey is necessary for a full understanding of the finances and educational practices of these school systems. A copy of the survey will be available electronically on the Town's website, and in paper form upon request.

Of the towns selected, Boxborough, Carlisle, Dover, Hamilton-Wenham, Weston, Sherborn and Southborough returned completed surveys. This sample of seven towns, plus Lincoln, form the main source of data we use. We received partial information from Concord and have incorporated these data to the extent possible. For each of these towns, we also obtained copies of the contract with the teachers. This gives us additional information about such issues as compensation scales in different communities.

For the towns from which we did not receive survey responses, we have supplemented our knowledge by using data from the Massachusetts Department of Education. However we did not pool these DOE data with those from our survey because we were not sure that they had been collected on precisely the same basis. Most of the results presented below are therefore based on the seven towns for which we have survey responses.

C. Overview of Report

The Task Force report attempts to answer two broad classes of questions:

- Costs: What accounts for the cost of the Lincoln Schools? How do these costs compare with those of similar communities?

- Educational Practices: How do educational practices in Lincoln compare to those in similar communities? What options are there for improvement?

Costs Overview:

The Task Force finds that there are three principal reasons for the difference between Lincoln's per student cost and that of comparable towns. First, Lincoln maintains smaller than average class sizes and utilizes a larger number of teachers and other adults to staff these classes. Second, Lincoln has a slightly higher average cost for personnel. Third, Lincoln has participated in the METCO program to a proportionally greater degree than comparable communities. The Task Force has undertaken a quantitative analysis of the cost of this program.

The Task Force does not find any significant difference between Lincoln's special education costs and the level of those costs elsewhere. The Task Force finds that Lincoln's administrative costs are comparable to other towns, perhaps even slightly lower.

In addition to the cost factors mentioned above there are numerous differences between specific educational policies in Lincoln and those elsewhere that do have cost implications. None of these differences is large. However, in the current difficult fiscal climate, all avenues for cost saving should be explored. The Task Force has developed recommendations related to all areas of our charge, including technology and use of instructional assistants, in addition to the topics mentioned above.

Educational Practices Overview

The high quality of the Lincoln Schools is due to the dedication of its staff of teachers and administrators. Lincoln benefits from the METCO program in ways that are hard to quantify but are nonetheless very important.

The Task Force finds that in the middle school grades, Lincoln provides less time in core academic subjects than its peer towns. We recognize the value of the physical, social and academic development that results from children's participation in art, music, physical education and the like and the need to strike an appropriate balance between these important activities and other parts of the curriculum. We recommend a shift in the allocation of students' time in the middle school grades toward English, Math, Science, History/Social Studies and Foreign Languages, without sacrificing a strong commitment to co-curricular subjects.

The Task Force finds that the recent budget cuts have resulted in a technology system that is outdated and difficult to use. We recommend that this situation be redressed on a one-time basis and suggest a more systematic approach to planning for technology in the future.

D. Conclusion

Each member of the Task Force is grateful for the opportunity to have served our Town and schools by participating as a member of this Task Force. We have been uniformly impressed with the quality and dedication of all the people we have met and worked with in connection with this work. Teachers and administrators have been extremely challenged by the circumstances under which they have been asked to function during the past year and have responded with grace and, above all, with commitment to our children. The volunteer citizens who serve on Town boards and committees with whom we have worked are knowledgeable and highly committed. Residents should feel gratified to have such a dedicated team working to maintain and improve the quality of the education offered to our children. We are honored to have had the opportunity to learn more about them and their work. And we complete our task with confidence that the future of the Lincoln Schools is in competent and caring hands.

II. Findings, Recommendations and Discussion

A. Class Size

Findings:

- Small class size is highly valued by teachers and parents.
- There is a benefit to small class sizes in the lower grades.
- Lincoln's *target* class size is consistent with the targets of our peer towns, but Lincoln's *actual* class sizes are consistently below these targets.
- The small scale of the Lincoln Schools makes it difficult to achieve targets consistently due to large relative fluctuations in the size of age cohorts from year to year.

Recommendations:

- The policy of small target class sizes should be continued.
- The current maximum class sizes should be maintained.
- The School Committee should consider strategies to achieve the target class sizes by smoothing out fluctuations due to the year-to-year variability in age cohorts. Such strategies might include combining classes across grades or increasing the flexibility of middle school teams.
- In the middle school, target class sizes might be achieved by combining classes in particular subjects, lengthening the period of instruction, reducing the number of periods per day, and other organizational ideas.

Discussion:

Small average class sizes are the most salient feature of the Lincoln Schools. Class size is the first thing mentioned in discussions with teachers and parents. It is highly valued.

In all areas of the country, class size often dominates the discussions of educational reform. Nineteen states have mandated reductions in class size. Nevada, for example, sets a target of 15 students per class, which is substantially lower than any town in Massachusetts. Most other states that have legislated target class sizes have set them very close to actual class sizes in Lincoln. In California, K-3 classrooms are capped at 20, in Texas, K-4 classes cannot average more than 22.

Despite the importance attached to small class sizes by people in Lincoln and by the political processes of many states, education researchers have reached only the most tentative and ambiguous of conclusions on this issue. However, as the education literature emphasizes, it is difficult to do a large-scale experiment without running into statistical difficulties. Ideally, a randomized trial should be conducted that can separate the effects of class size from other factors. There are very few studies that take this approach. These studies conclude that smaller class sizes do achieve better results in the early grades one, two, and three. Conclusions for later grades are weak. What seems to matter most is that a child begins school in an environment with few students per teacher. If the class size increases in higher grades, little or no deterioration in performance is observed. Despite possible methodological problems, the Task Force endorses the basic policy implication that small class sizes are particularly valuable in early grades, and are less essential in later grades.

Lincoln's average class size this year is 18.8. For the seven other towns in our sample, the average is 20.4. In the current year Lincoln has the smallest class size in the sample in grades one, two, four, seven, and eight.

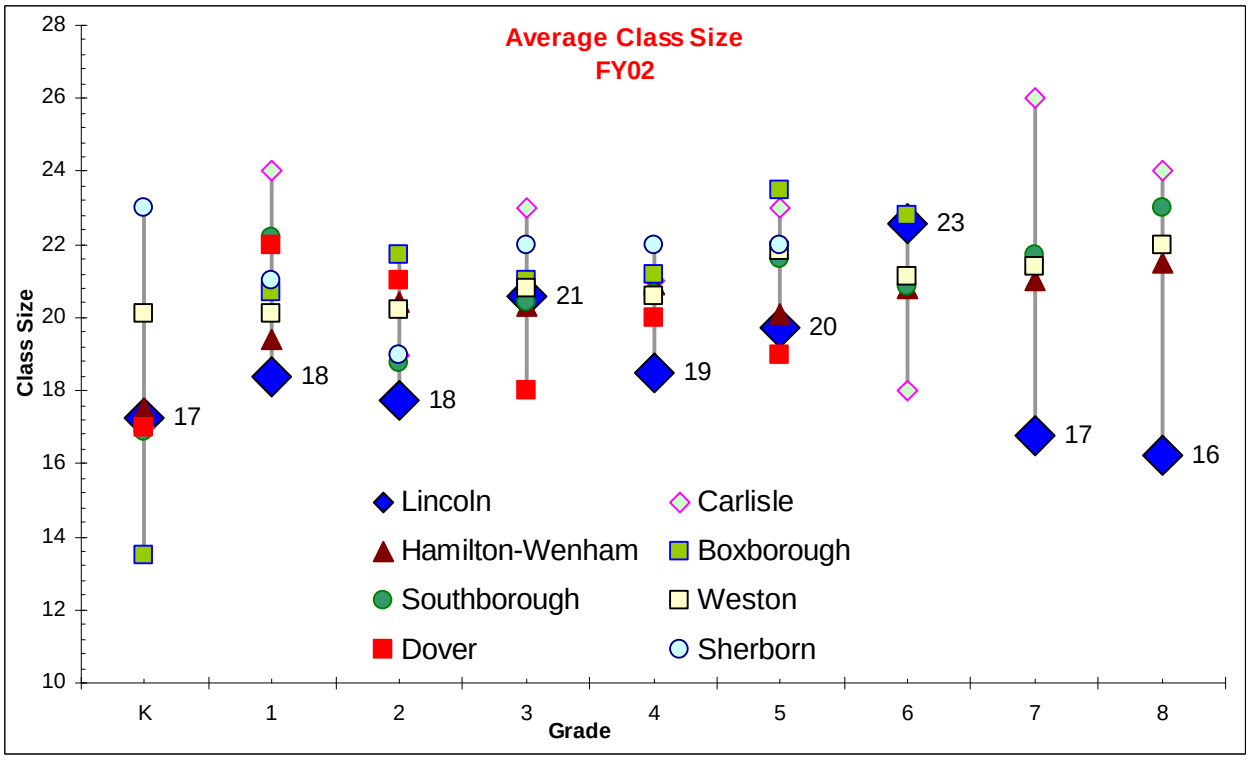
Class size is one of the most important determinants of per pupil spending because of its tendency to drive personnel costs. We estimate that the fact that Lincoln has a class size 8% lower than the seven other towns in the sample causes a 6% increase in per pupil spending, holding all other factors and policies constant.

The process by which class sizes are determined and regulated varies widely over our sample. Some towns set minimum, target and maximum class sizes, as Lincoln does. Others set a target, but do not specify bounds. Two towns specify a maximum class size and give the School Committee discretion below that level. Two towns have no written class size policy.

Because of its small scale, Lincoln is more subject to year to year variations in relative cohort sizes than a larger town would be.

Lincoln's small scale also makes it hard for the School Committee to fine tune class size. If an extra classroom is added or subtracted from a given grade, the class size will change by four or more students, and, in the current system, there is no way to make smaller increments than that. In Lincoln, an age cohort contains roughly 80 children. If there are four sections in that grade, class size is 20; if there are five, class size is 16; if there are three, class size is 26. The School Committee simply must make a choice between these three numbers. In contrast, in a large district class sizes can be adjusted to within a student or two.

The coarseness of this adjustment process may also create disparities and perceived inequities across grades. Those grades in which the School Committee has created an extra section may have noticeably smaller class sizes than adjacent grades, even though the number of students is hardly different at all.



B. Teacher Salary and Seniority Structure

Findings:

- Lincoln's teacher salaries are comparable to those of our peer towns. Any differential is largely explainable by location, with towns close to Boston/Route 128 having higher living costs and therefore needing to pay higher salaries at the same experience and education level.

- Lincoln has more young teachers than our peer towns.

- Lincoln does not provide as much incentive for our teachers to obtain advanced degrees as our peer towns.

Recommendations:

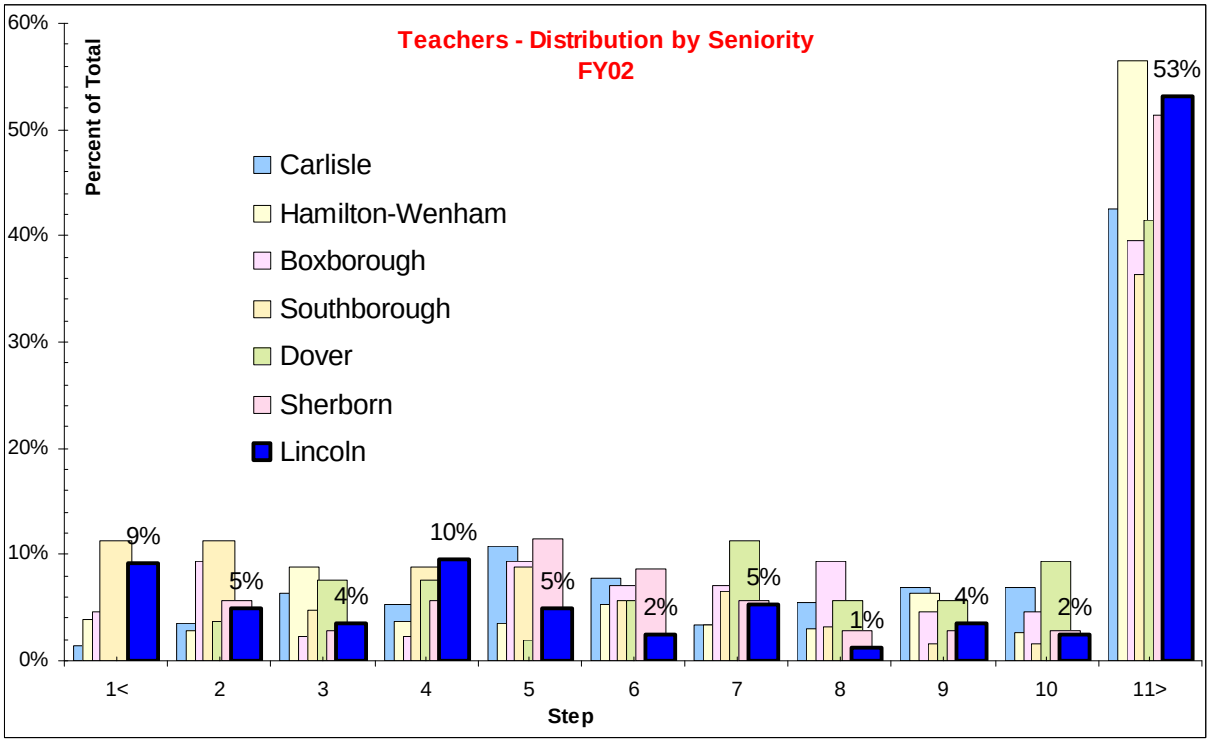
- Lincoln should increase the opportunities for the professional advancement of its teachers. These opportunities should be concentrated on the acquisition of specific new knowledge that can be brought into the classroom and specific additional skills.

- Lincoln should continue its practice of seeking out well-qualified teachers, including those at the beginning of their careers, as part of its hiring program.

Discussion:

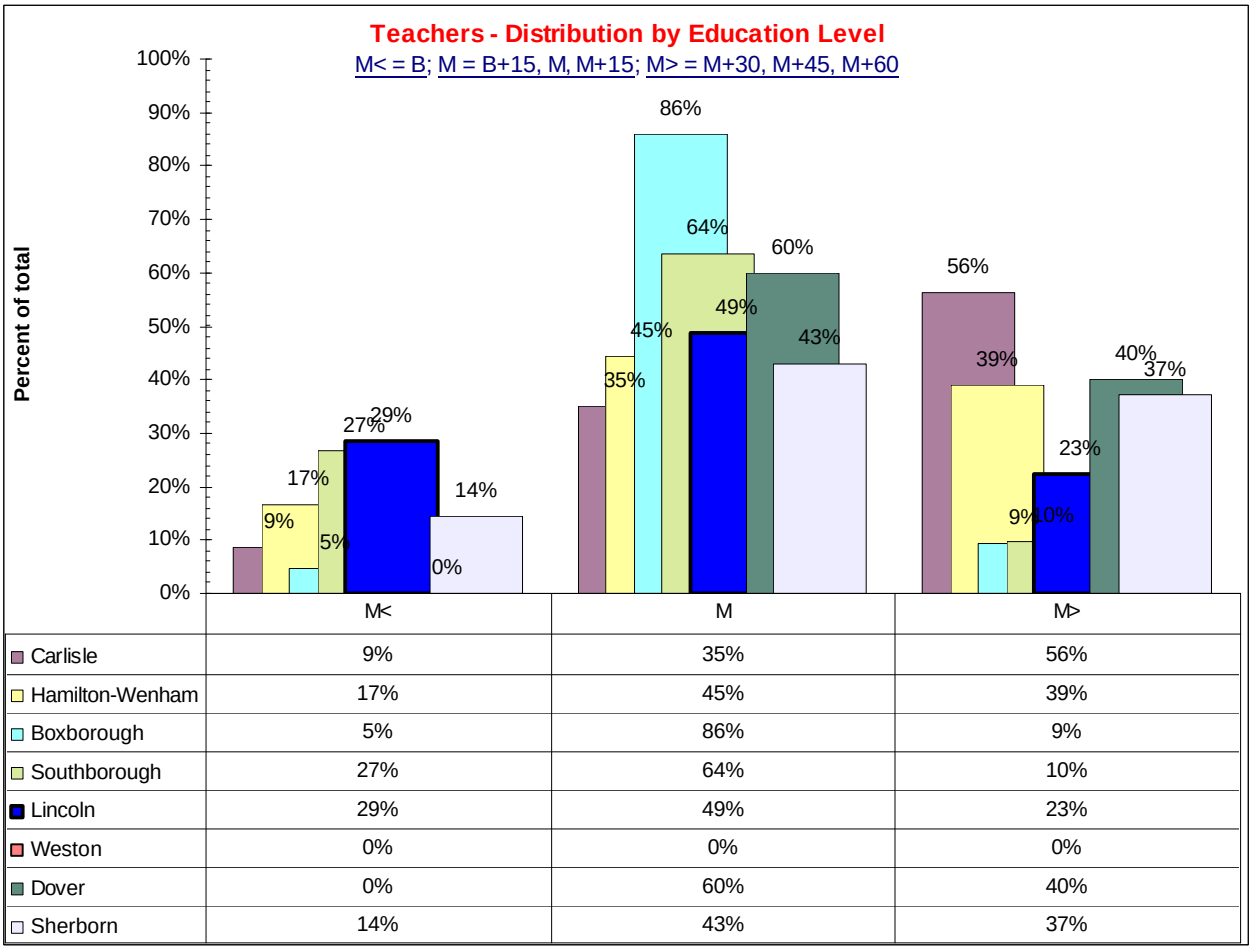
Comparison of personnel costs is difficult, and can be misleading. What is clear, however, is that the market for teachers at all levels of experience and educational attainment is highly competitive. Nationally, there is, to some degree, a well documented "teacher shortage", although most districts in Eastern Massachusetts are still able to fill their vacancies well.

Lincoln's cost for teacher salaries is somewhat higher than the average of the towns in our sample. However, one must quickly recognize that such a comparison is meaningless until it is adjusted for the experience and education of the teachers. Both the level of salaries and the way teachers' contracts recognize experience and education are outcomes of the collective bargaining process.



In looking at each of several levels of experience (steps 1 – 12) and education (Bachelor's degree, Master's degree, Master's plus 30 credits, etc.), Lincoln averages from two to 12% higher than the average of our sample. However, Lincoln's teacher's contract has only 12 steps, instead of significantly larger numbers for most of the towns in our sample. In addition, Lincoln does not have a separate salary scale for anything beyond a Master's degree plus 30 credits, whereas many of the towns in our sample recognize a Master's degree plus higher numbers of credits, and some recognize Doctorates or the equivalent with a still higher level of salary.

The districts are fairly similar in the distribution of teachers across the seniority spectrum with all the surveyed towns having a very senior and experienced staff. Lincoln has 53% of the teachers at step 11 or higher, which is only very slightly higher than the average of the towns in our sample. Comparisons above this level are not meaningful, as Lincoln's last step is 12. What this means, however, is that Lincoln's highest step teachers are considerably more experienced than "step 12" teachers in other districts. To the extent that this is true, the higher than average salaries in Lincoln are not as high as they might seem. The salary at this step implicitly recognizes the seniority and experience of these teachers, even though this is not directly incorporated into the contract. The Task Force also found that several districts in our sample do not hire teachers at the lower educational levels. For example, Dover and Weston have no teachers with less than a Bachelors degree plus 30 credits; Boxborough and Carlisle have only 5% and 9% respectively of their teachers in this category. Lincoln has 29% in this category and is the highest in the entire sample.



	M<	M	M>
Carlisle	9%	35%	56%
Hamilton-Wenham	17%	45%	39%
Boxborough	5%	86%	9%
Southborough	27%	64%	10%
Lincoln	29%	49%	23%
Weston	0%	0%	0%
Dover	0%	60%	40%
Sherborn	14%	43%	37%

Taking all these adjustments into account is very difficult. It seems, on average, that teachers in Lincoln are paid, over their careers, at approximately the same level as those in the "closer in" suburbs, (Weston, Concord, Dover, Carlisle), and somewhat more than teachers in the "farther out" suburbs (Hamilton, Boxborough, Southborough). As we said above, this is a competitive market. Housing costs and the general costs of living are higher the closer one comes to Boston. Lower teacher salaries in the outlying districts in our sample, and the correspondingly higher salaries in Lincoln, are fully consistent with the idea that teachers salaries in any one district are largely beyond that district's control. Through the collective bargaining process they will be set in line with living costs and salaries in nearby towns.

For our cost comparison, this analysis means two things: Lincoln's slightly higher personnel cost is largely a function of our location. Since personnel is by far the greatest cost to our school system, cost savings can likely be achieved through a strategy of seeking out high quality teachers at all levels of education and experience and insuring that they are used effectively and efficiently within the system.

C. Allocation of Teachers' and Students' Time

Findings:

- Lincoln provides its teachers with more planning time during the school day, both by contract and in practice, than our peer towns. This differential with our peer systems is largest in the middle school grades.

- Teachers in the four-person teams in the middle school grades have fewer contact minutes with children than comparable teachers in our peer towns.

Recommendation:

- The School Committee and administration should take a close look at the schedule of the core teaching team in the middle school grades, to insure that scheduling and organization of the school program make best use of time, allowing sufficient but not excessive planning time, and insuring a rigorous academic program, balanced with children's other educational and developmental needs.

Discussion:
A quality education requires a balance between the time teachers spend in the classroom and on other related activities, as well as between student engagement in a strong mix of core academic pursuits and other co-curricular opportunities for exploration and development. In order to be effective, teachers need time away from students, both individually to plan lessons and correct papers and collectively to look at student work, plan curriculum and insure consistency with other teachers in the same grade or academic discipline. Add time for teachers to meet with parents and students, to write reports and to participate in professional development, and the administrative balancing act of scheduling the student's and the teacher's day between actual teaching time and time for other activities important to a quality educational program is readily apparent. Teacher planning time is often cobbled from periods when students are with teachers of other subjects. Our study examines the various components of this time balance of both students and teachers and seeks to compare Lincoln to other districts.

Teacher planning time in Lincoln is governed by the labor contract, guaranteeing teachers a certain minimum amount of planning time during their work week, while time for team planning and other non-teaching activities is governed by administrative initiative. In Lincoln, the teacher contract provides in Article 4 for a minimum of 225 minutes per week for a full-time teacher for individual planning and preparation, with an effort to apportion it in blocks of 30 minutes per day minimum. In fact, the typical specialist period is 45 minutes, making one period per day de facto of contractual individual planning time. These provisions exceed the contractual provisions in most of the districts in our sample. One period per day seems to be the norm in practice, but in

some communities surveyed, that time is not guaranteed by contract. In Hamilton-Wenham, the teachers' contract makes this provision not guaranteed, not grievable and subject to budget considerations. In addition, Lincoln teachers remain at school until 2:30 p.m. every Wednesday while the students are dismissed at 12:30. These Wednesday afternoons are allocated as follows by the teachers' contract: one to be scheduled at the teacher's discretion, two for team and departmental meetings, and one for campus collaboration. In addition, teachers may be required to attend two afternoon meetings per week that go until 4 PM and four evening meetings per year. Note: A side agreement that is not binding encourages provision of an additional 35 minutes for team planning time in addition to the 225 minutes provided in the contract.

We look at how the school schedule impacts both teacher planning time and student time in academic pursuits, and compare Lincoln with other districts. First, we look at how much time students spend on core academic subjects (English, Math, History/Social Studies, and Science) versus co-curricular subjects (Physical Education, Art, Music, Health). Second we look at how much time teachers of core subjects, as defined above, spend with students during the school week and how much time away from students they have available for their other related responsibilities. These two analyses produce identical results at the elementary level, but foreign language turns out to be a "swing" subject at the middle school level. According to Lincoln administrative leadership, foreign language should be considered a core academic subject, once students study it more than twice a week. Since foreign language is taught by specialists, not the core team, it will be included in our middle school analysis among non-team taught classes for purposes of understanding teacher planning time but included among core subjects in seventh and eighth grade (when students study foreign language more than twice a week), for purposes of understanding how much time students spend in core academic instruction.

At the elementary level, the table below indicates that of the 30.25 hours (1,815 minutes) Lincoln elementary students spend in school each week, 1,330 minutes are spent on core academic instruction, and 485 minutes are occupied with co-curricular subjects and other activities (physical education, art, music, technology, lunch and recess). Student activities with specialists leaves elementary teachers with roughly five periods per week of approximately 45 minutes each free for teacher planning time. Although time on core academic subjects seems to be somewhat lower than other communities surveyed, our finding of available teacher planning time is consistent with the Lincoln teachers' contract provisions and with the practices in other communities.

Elementary School Time Analysis:
Grade Four Example
(Minutes per week)

	Length of week	Time spent with core teachers	Time students spend in other activities
Lincoln	1,815[1]	1,330	485
Boxborough	NA	1,500	205
Carlisle	1,950	1,435	235
Southborough	1,860	1,125	525
Ham-Wenham	NA[1]	1,260	470[2]
Dover	[3]	[3]	[3]

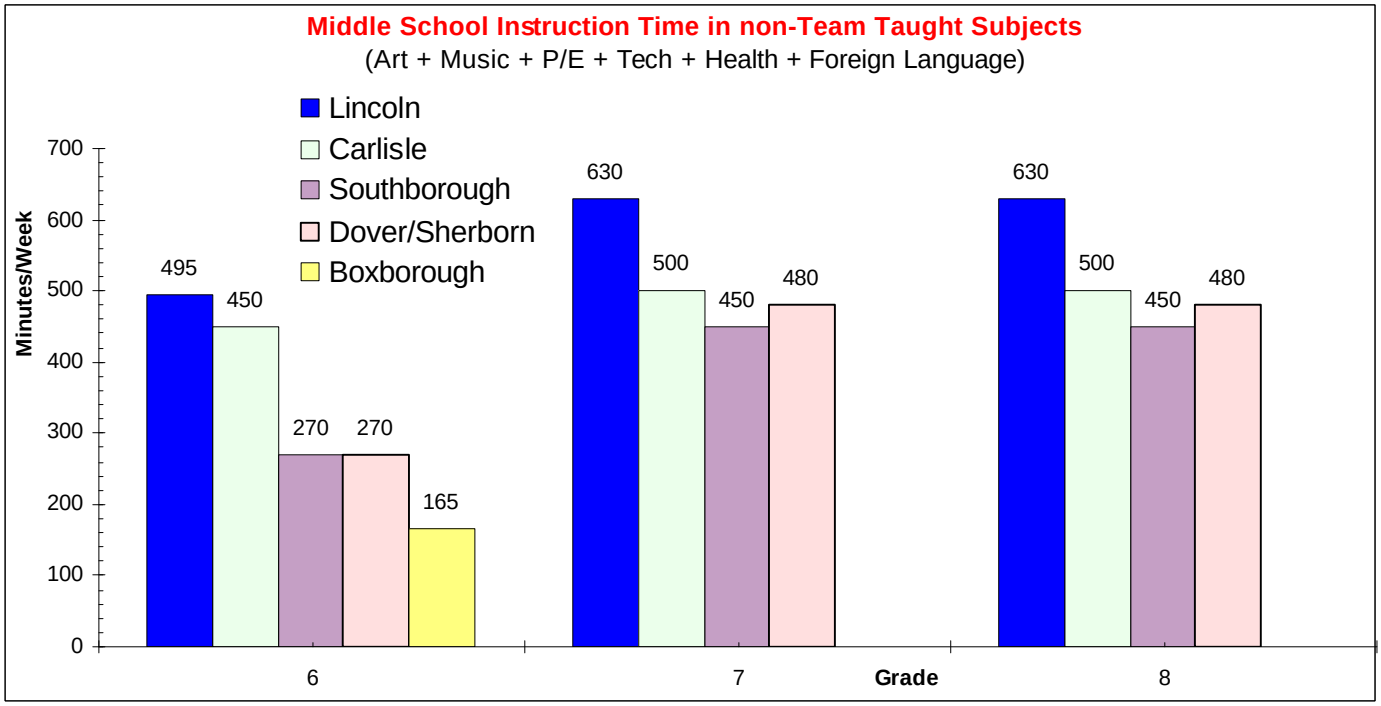
1 - One early release day

2 - In 4th and 5th grades, 135 minutes of foreign language is added with no change to other numbers, indicating possibly unreliable data.

3 - Length of school day seems to fluctuate from grade to grade, indicating unreliable data.

At the middle school level, when foreign language is factored out of core academic time and included in non-team time, for purposes of looking at teacher time available for other related activities, the chart below shows that teachers at the middle school level have considerably more time available for their non-teaching activities than is required by contract, than do their

elementary counterparts, and than middle school teachers in most other systems surveyed. Middle schoolers spend 30.25 hours in school each week (1,815 minutes), of which between 840 and 1,060 minutes are spent with their core teaching team, and between 755 and 975 minutes are spent in other activities. This amounts to between 11 and 12 periods per week of time when the core teaching team is not teaching classes, far exceeding the roughly one period per day for individual planning time provided in the teachers' contract. Even taking into account the added team planning time necessary as part of the middle school model, it is worth the School Committee and administration taking a closer look at more efficient use of the time of middle



school teachers of core subjects.

D. Middle School Model

Findings:

- Some form of team teaching approach for middle school grades is an educationally advantageous system. All our comparable towns with middle schools use a team teaching model.

- Lincoln's small scale and four-person teams make it difficult to manage class sizes and maintain them at target levels.

- Some of our peer towns use smaller teams. This method requires the use of teachers who work in more than one content area.

Recommendations:

- The School Committee should consider modifying the current single-grade four-member team approach where small class sizes create inefficiencies.

- The School Committee should explore a variety of means to increase the time allocated to Math, Science, English, History/Social Studies and Foreign Languages in the curriculum of the middle school grades.

Discussion:
Although the Lincoln School is a single K-8 institution, the teaching model for students in grades six through eight differs from the single-teacher, multi-disciplinary teaching model used in the primary grades. In these "middle school" years, four-member teams teach students in each grade. Each member of the team teaches a single core subject area (English, Mathematics, Science and History/Social Studies) with students in each grade divided into classes that attend all of their core subjects together. Although some educators argue for inclusion of grade five in the middle school, we did not find this to be the case for the towns included in our survey. (Note that students in grade five in the Lincoln Schools do engage in switching of classes for certain subjects.)

The four-member team teaching model for grades six through eight was implemented in the Lincoln Schools in response to strong community demand for improved performance in the middle school. From an educational and developmental perspective, the model has been very successful. The model is designed to address the developmental needs of adolescents while providing a rigorous academic program. Under the team approach, teachers share the same students and have common planning time so that they are able to respond more quickly to the needs of individual students through collaboration. The team seeks to integrate the curriculum across subject areas. Another important benefit of the model is that it makes available a higher level of instructional expertise in each subject than is possible in a single-teacher model. The model also provides a smooth transition from the "nurturing" single classroom environment of elementary school to the open curriculum of a high school.

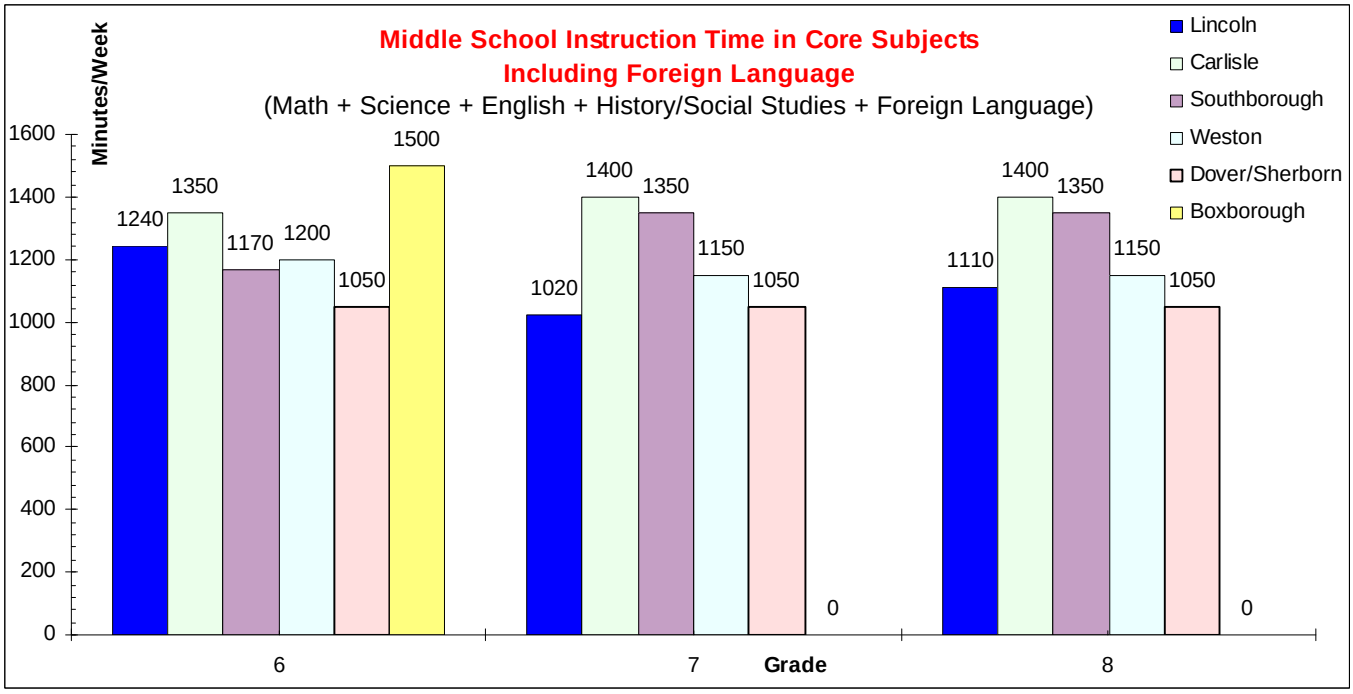
However, two aspects of Lincoln's middle school model may lead to higher costs. First, the team needs planning time to work on curriculum and to discuss student needs, reducing time spent teaching. Team meetings currently occupy 92 minutes of each week, which is in addition to teachers' individual planning time. During these periods, students attend classes in non-core subjects and foreign languages. Second, the team approach makes it difficult to scale the number of teachers to the number of students in any particular grade, particularly in a small system like Lincoln's. For example, last year in grades seven and eight there were 67 and 65 students per grade respectively, resulting in an average of fewer than 17 students per class. In a single-teacher model, three teachers could adequately staff these grades with a class size at the target of 22 students.

Assuming that the system continues to use single-grade four-member teams, the system cannot reduce the number of teachers by combining classes since that would simply reduce the number of classes taught by each teacher. There are only two ways to reduce the staffing requirements with the team approach. One is to reduce the team size with a single teacher covering more than one core subject. This has the potential for diluting the benefit of a higher degree of each teacher's subject area expertise. The other is to have teachers on a team teach more than one grade.

The Task Force believes that the team teaching model is optimal for grades 6 through 8 at the Lincoln Schools. All of the towns included in our survey use some form of team teaching model for grades six though eight and educational literature uniformly supports this approach. The only drawback appears to be the additional cost of the model. As with other areas such as class size, this is particularly challenging in a small system where there are significant variations in the number of students from grade to grade. In addition, it appears that the amount of time spent by Lincoln students in core subject areas is less than that spent by students in other systems included in the survey, by around 200 minutes per week.

The bar graph below illustrates the amount of time Lincoln students spend on core academic subjects at the middle school level, compared to other communities we surveyed. While Lincoln is fairly comparable to other communities at the sixth grade level, it appears that Lincoln students spend less time on core academic subjects than do students in most other communities surveyed in the seventh and eighth grades. Note: the comparative results seem generally valid, but any

more refined analysis must be viewed with some caution, as some towns did not complete these sections, and others indicated their numbers were approximate. In several instances, the numbers did not correlate across different parts of the survey.



E. Instructional Assistants

Findings:

- Lincoln uses instructional assistants more extensively than any of our peer towns, with the difference being largest in grades four and five.
- There is no research-based evidence that the presence of instructional assistants in the classroom is positively associated with student achievement.
- There is some evidence that instructional assistants help classroom teachers maintain a better learning environment in the early grades.

Recommendation:

- The School Committee should review the use of instructional assistants in grades three and higher.

Discussion:
Historically, Lincoln has had a commitment to the use of aides in the classroom. Due to the inclusion model, aides are employed primarily as Instructional Assistants who help reinforce material presented, allowing the teacher to maximize the students' time on task and cutting down on busy work. In Lincoln there were 19 Instructional Assistants in 2001-2002. There were also 12 Student Teachers and many Parent Volunteers. As a result of the inclusion model, there are also Special Education Tutors and Special Education Teachers in the classrooms. At a given point in time, some classrooms have as many as four adults.

Why use Instructional Assistants? Instructional Assistants reduce the adult / student ratio in the classroom. They reduce distraction and help with social and emotional issues, so less teacher

time is spent on disciplining students. In addition to their classroom duties, Instructional Assistants also help with non-teaching duties such as lunch, recess and walkers room duties, freeing up teachers for professional duties. Instructional Assistants earn $10.46 per hour (2001-2002) and $10.75 per hour (2002-2003).

How effective are Instructional Assistants? Research done with early reading programs (K-3) suggests that one-to-one tutoring models improve student achievement. However, according to a well know study done in the 1980's in Tennessee (Project: STAR) on class size and the use of Instructional Assistants, there was no defensible data to support Instructional Assistants having a positive impact on student achievement. This research showed that a smaller class size of 15 leads to marked improvements in a child's reading achievement, but the addition of another adult in the classroom has no effect on achievement.

Among the surveyed towns that responded, Hamilton-Wenham Public School is the only other town that demonstrates a similar investment in the use of Instructional Assistants. Hamilton-Wenham has one Assistant for every 42 children, as compared to the Lincoln Public Schools ratio of one Assistant per 37 children. Boxborough, Carlisle, Dover and Sherborn have lower numbers of Instructional Assistants. Southborough does not utilize Instructional Assistants in its system.

In the academic year 2001-2002, Lincoln's cost for Instructional Assistants was $125,788.. In the current academic year the cost of Instructional Assistants increased to $162,540.. During this time the Kindergarten went to a full day. The Instructional Assistants within the Kindergarten, who previously worked part-time became full-time. A state grant to schools with full-day kindergarten covers the Kindergarten Instructional Assistants' salaries ($54,180) for 2002-2003. This additional money allowed the school to increase the number of Instructional Assistants system wide from 19 to 22.

In the towns that were surveyed there was no correlation between class size and the use of Instructional Assistants. Lincoln has the smallest class sizes with the most extensive use of Instructional Assistants.

F. Technology

Findings:

- Technology has suffered as a result of the disruptive budget situation of the past several years.

- While each of the towns in our peer group manages technology differently, Lincoln seems to have fallen behind on the acquisition of, staffing for, and utilization of technology.

Recommendations:

- The School Committee should develop a multi-year plan to standardize the computers in use in the schools, not necessarily to incorporate the latest technology.

- The School Committee should examine the uses of technology to achieve economies of scale in special education, and thereby provide differentiated instruction suitable for many students.

- The Town should consider a Warrant Article that would allow the Schools to upgrade its computer systems on a one-time basis, and that following this upgrade, future expenses for computers and related systems be incorporated into the School's annual operating budget, instead of the capital budget.

Discussion:
The survey instrument asked our peer towns about their planning for and use of technology. Few of the other towns report a regular plan for up-grading and replacing computer and network hardware. Like Lincoln, almost all of them put such expenditures in a capital budget and attend to it irregularly, when funds are available.

Every town surveyed reports the use of computer-based programs for the teaching of basic subjects. The particular software packages used vary widely. No attempts have been made to engage in collaborative efforts with other districts.

The survey also asked about the grade level at which various stages of computer literacy was expected of students – from basic tasks such as writing composition assignments to the more sophisticated uses such as spreadsheets and web-authoring. Lincoln seems to ask as much or more of our students in all these task areas as the comparison towns. There is no evidence that Lincoln students are at a disadvantage in the depth of their computer literacy or in the ways in which they are required to use computers at school.

However, when the Task Force met with the Lincoln teachers, a somewhat different picture emerged. Although Lincoln may not be requiring any less of its students, everyone in the Lincoln Schools – students, teachers and administrators – suffers from an antiquated stock of computers and software. This lowers productivity by slow responses, lack of compatibility and portability of programs, and frequent downtime.

Lincoln is surely not unique in this respect. Nevertheless, the Task Force is sufficiently worried about the poor state of computing in the Schools that it is recommending an overhaul in the process through which technology is planned and purchased. The Task Force believes that the initial expense required will be more than amply repaid by improvements in productivity at all levels.

G. Special Education

Findings:

- The percentage of Lincoln resident children requiring special education is slightly lower than in our peer towns.

- Lincoln has a slightly lower ratio of students to special education teachers than other towns.

- There is no evidence that Lincoln is a magnet for families seeking special education services.

- Lincoln's out-placement rate for special education-eligible students is significantly lower than that in any of our peer towns. This is due to Lincoln's strategies of early evaluation, intervention and inclusiveness, which results in lower overall costs.

Recommendations:

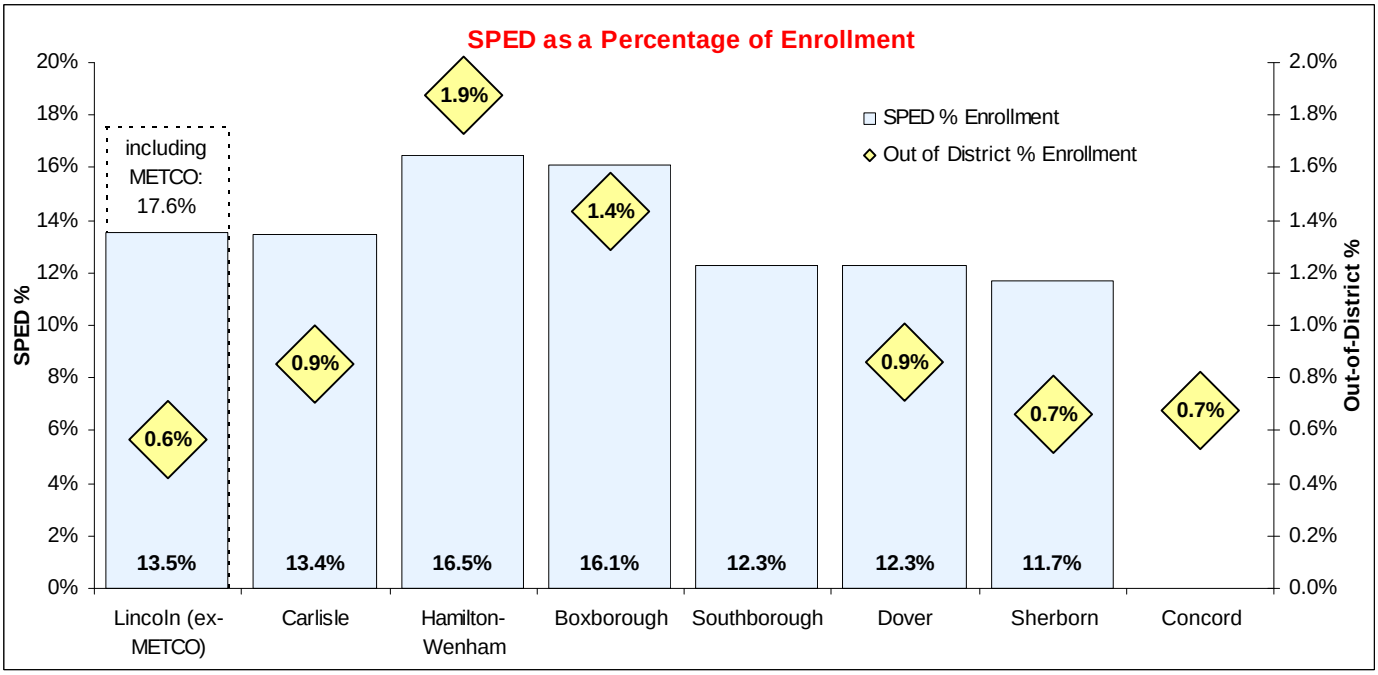
- The School system should continue its practice of intensive early identification and service provision of children with special needs.

- The Lincoln Schools should continue to investigate innovative ways of adapting the standard curricula for a variety of learning styles. Special education services are mandated not by a child's diagnosis, but by the child's inability to make progress through the curriculum. If the standard curriculum moves increasingly away from "one size fits all" to a variety of learning styles being accommodated, the need for traditional special education services declines.

Discussion:
Special education is an initiative to improve the education of children between the ages of three and twenty-two years who are not making adequate progress through the standard curriculum, and hence require some form of adaptation in their educational setting or approach. Special education services are mandated by federal law, and are understood in general as part of the larger legal movement to insure the rights of the disabled.

Despite decades of federal mandates, the program has never been fully funded at the federal level. In addition, states have chosen to fund special education in a bewildering variety of ways. For years, Massachusetts has been among the two or three states that provide the lowest percentage of funding to local school districts for the costs of special education. Hence, it is important to realize that special education in the Lincoln Schools represents a severely underfunded federal mandate, the costs of which are transferred to the Lincoln Schools and hence to the Town. This is a responsibility to our neighbors that we cannot shirk nor avoid; we can, however, choose to manage this in creative and satisfying ways.

It is also important to realize that the apparent growth in special education budgets, both statewide as well as locally, represents a growth in the expense and complexity of the problems which children bring to schools, and not a growth in absolute numbers. Between 1992 and 2002, the percentage of children enrolled in special education declined (from 17.4% to 16.7%), whereas the percentage of local school budgets expended on special education grew (17.2% to 19.5%). Corrected for inflation, special education budgets statewide grew by 20% over these past ten years, whereas overall school budgets grew by 4.5%



This discrepancy is due in large part to factors outside the control of educators and town budgeting processes. It represents a transfer of many medically driven costs into the education sector. Over this ten year period, advances in medical technology have led to the birth of increasing numbers of premature infants and have simultaneously permitted increasing numbers of premature infants to survive to school age. There has been an overall three-fold increase in the number of premature infants who now survive to school age, which all bring substantially higher risks for educational problems and hence special education needs. Over this period of time, the

number of children with medical diagnoses that lead to special education services has grown from 2% of the school-age population to 8.5% of the school-age population.

It is equally important to note that the risk for these medical issues is not equally distributed across demographically defined groups. These risks are substantially higher for urban populations, which is the probable best explanation for the higher incidence of special needs services among Boston students enrolled in the Lincoln Schools. These risks also increase as maternal age at time of the child's birth increases, which is a demographic trend in affluent suburbs such as Lincoln.

In light of the above, we make several observations about special education in Lincoln.

1) The incidence of children of Lincoln residents requiring special education services is 13.5%, lower than the statewide average. There are no demographic data to support the notion that Lincoln serves as a magnet for families of children with special needs.

2) The increased incidence of children with special needs in the Boston population in the Lincoln Schools is probably best explained by the above-noted demographic features. It is an incidence of special education services comparable to those noted in the Boston Public Schools.

3) Lincoln has several practices characteristic of the way larger systems approach special education :

   -intensive evaluation services available within the system

   -a variety of intensive placements within the district, that permit many children to be educated in-district and lead to fewer outplacements

   -highly trained special education personnel at the early primary school levels

These approaches, while apparently not official policy, are noteworthy for several reasons. In the long run, they contain costs within the Town to a greater degree than do approaches typical of most small systems, which depend more heavily on outside consultants. Thus, they make the Town less vulnerable to radical shifts in outside consultant costs. The average cost of an outside evaluation over the last ten years has risen 275%, corrected for inflation. The annual rise in school personnel salaries has been substantially below this.

These approaches have also led to higher user satisfaction; Lincoln is substantially below the average for cohort school systems in terms of number of outside independent evaluations requested by families (which by law must be funded by the school system), and in terms of outside placements and hearings before the Board of Special Education Appeals, both of which are costly and time-consuming for the system.

H. METCO Program

Findings:

- Lincoln's METCO program has been successful for many years and is highly valued by both the Boston and Lincoln communities.

- The Task Force has developed a marginal cost methodology that estimates the cost of adding additional students to the Lincoln system. Applying this methodology to the case of the 12% of our school population from Boston, we estimate that the additional annual cost is approximately 5% of the Schools' operating budget.

Recommendations:

- The Task Force makes no specific recommendation with respect to prospective changes in the METCO program itself. We have heard from all quarters about the value of the program to Lincoln children and to Boston children. We present an analysis of the dollar cost of this program so that the program's benefits can be evaluated and publicly discussed in light of these costs.

- The Task Force recommends that the School Committee utilize this marginal cost methodology to evaluate the financial impact of any contemplated changes in enrollment policy.

Discussion:
The METCO program was established in the 1960's as a voluntary busing system in which inner-city minority children enrolled in participating suburban school districts. The purpose of the program has been two-fold: for the Boston families, it would provide a better education, and for the predominately white suburban towns it would provide a level of racial diversity that otherwise did not exist. It is generally believed that the program has been a success on both counts.

Currently, about 3,100 Boston children are selected each year from a waiting list of about 15,000 and get placed into the 34 participating districts. The actual placement of these students into the districts is done through the local METCO Directors. According to the METCO central office, students are selected by their application date, with siblings of currently enrolled METCO students receiving priority. Boston families tend to place their children on the waiting list when they are born. Currently, out of every ten students selected, six are African-American, three are Latino, and one is Asian. This is more or less consistent with the current non-white demographics in Boston (55% African-American, 29% Latino, 16% Asian). In Lincoln, the METCO population contains a higher proportion of African-American children. This is attributable to the preference to keep siblings of current students in the same district. Some districts (including Lincoln and Weston) enroll METCO students at the Kindergarten level, while others enroll them at later grades. On average, METCO students comprise 2.8% of the participating districts' total enrollment. Lincoln is the largest participant on a percentage basis, with 12.5% of the student body consisting of METCO students. Weston ranks second with 8.7%.

Lincoln has a long history as an active participant in the METCO program, and is widely considered a pioneer in promoting racial diversity. While the overall commitment of the Town to the METCO program has never wavered, the actual enrollment policy has undergone some changes through the years. At one point, the policy was to enroll four METCO students per section, which was done in part to achieve critical mass at a time of low overall enrollments. Then following the report of a Lincoln METCO task force in 1990, the policy was changed to two students per section if space permitted. This remains the official policy. No new Kindergarten sections have been added as a result of METCO enrollment; thus the "space permitting" qualification has not been relevant up to the present time.

When the METCO program was first started, the State funded a large part of the cost to the districts through an annual grant. Over the years, however, state funding has not kept up with the cost of education, and for over a decade the program has been level-funded at $12 million per year. In 2001, through aggressive lobbying by State Representative Jay Kaufman, the state METCO budget was increased to $15.3 million. Another $3 million increase was slated for passage this year, but the recession and resulting state budget problems have eliminated that possibility. There is little prospect for an improvement in state funding in the near future.

Since 2001, the state funding formula has been $2,880 per METCO student plus transportation costs (capped at $104,000). Hence, for Lincoln, the state grant is $256,320 (89 x 2,880), plus transportation costs of $104,000 for a total of $366,080. There used to be a separate METCO special education grant as well, but that is now no longer available.

There are various ways to calculate the cost of the METCO program to Lincoln. Two approaches that are sometimes mentioned but that the Task Force deems as incorrect are the "empty seat" approach and the "full tuition" approach. The third (and in our opinion correct) approach is the marginal cost approach. All three approaches are described below.

The empty seat approach assumes that, since the METCO program only fills seats that would otherwise have been empty, the cost is minimal. The Task Force believes that this is an incorrect approach, because it is unrealistic to assume that at one point or another in the K-8 cycle, one or more new sections will not have to be added as a result of having added two METCO students per section in Kindergarten. As a result, the empty seat approach likely understates the true cost to the Town.

The tuition approach, on the other hand, overstates the cost of the METCO program to the Town. This approach allocates a fraction of the entire Lincoln Schools budget (including central administration) to the cost of the METCO program in proportion to the METCO enrollment. The task force believes this is an incorrect approach as well, since many system-wide costs would be incurred with or without the METCO program.

In our opinion, the correct approach is to estimate the costs that would not have been incurred if enrollment had been lower. We call this the "variable cost" or "marginal cost" methodology. Thus this method is applicable to any change in the school population, whether it is due to Lincoln's participation in a voluntary program such as METCO or to a change in the Lincoln Schools population due to other factors.

To determine variable costs we forecast whether an additional section would have to be added in a later grade, on account of the additional kindergarten enrollment. Then, if such a section is required, we estimate the additional costs – most importantly, the additional teachers that are required. In addition to these costs, which are fixed once a section has been added, there are additional costs that are proportionate to enrollment. These per-student costs include supplies and special education services.

A number of quantitative assumptions are necessary in order to implement this marginal cost methodology. For each year in the future and for each grade we make a forecast of the additional costs needed as a result of the number of Boston children in that grade. We need to make assumptions about attrition of Lincoln children in later grades in order to forecast the evolution of cohort sizes. We need to make precise assumptions as to when a new section will be created. Is it when the maximum class size is exceeded, when the target class size is reached, or somewhere in between?

"Variable Cost" Approach	FY03 Cost	% Bdgt
Cost of Additional Sections	$268,330	
Cost of Supplies & SPED Services	$229,194	
+ Cost of METCO Salaries	$154,371	
- State METCO Grant	-$256,320	
Total Cost of METCO Program	**$395,576**	5.3%

Assuming for a moment that no new section is created unless the maximum class size would be exceeded, the cost of running the METCO program in FY03 is $381,989, or 5.0 % of the school budget. Given the age distribution of our students in FY03, there are three additional sections that would not have existed but for the METCO program. The table to the left shows how this variable cost of the METCO program breaks down across the cost of the additional sections, the extra per-student costs and the cost of special education services, minus the per-student METCO grant that Lincoln receives.

As mentioned above, one cost that we do include in the variable cost of the METCO program is the cost of special education students within the METCO student body in Lincoln. The Task Force finds the following aspects of this issue worthy of note: While METCO students comprise 12.5% of the overall K-8 student body, they comprise 23% of the overall special education population. It should be pointed out that, by definition, there are no METCO out-of-district

placements, which incur by far the highest cost within the special education budget. Nevertheless, a review by the school administration shows that the level of special education services (by level of severity) required by METCO special education students is more or less the same as those required by Lincoln students. The Task Force recommends that the school administration compile longitudinal data of the special education needs of METCO students and that our variable cost model be recomputed on the best available data once this study is complete.

If the approximate cost of educating the current 89 METCO students is 5% of the school budget, can savings be incurred by reducing the current enrollment? The answer is yes. If fewer sections were required, the teaching staff could be smaller. However, each of these sections would have more students in them than if the METCO enrollment had been maintained. Moreover, meaningful savings would not be realized in the near future, but only after three to five years. This is because any hypothetical reduction scenario would have to assume that the current commitments made to METCO students will be upheld. Therefore, any policy to reduce METCO enrollment should not be seen as a short term cost reduction strategy.

One possible method for mitigating the cost of METCO while maintaining the program in its current form would be to admit students in Kindergarten only to the extent that no new Kindergarten section is required. Indeed, this has been the officially stated policy to date. Under such a policy there could be years in which one section would not have METCO children in it because it would already be at the maximum class size for Kindergarten. The Task Force calculated that such an enrollment change would reduce the annual operating cost of the Schools by 2 percentage points. The implications of such a policy for total METCO enrollment would be a gradual reduction from the current 12% of the school population to 8%. Historically, however, the resident Lincoln population drops off after grade 3. It is difficult, therefore, to calculate precisely the cost of the METCO program in the future.

Cost Projections for Variable Enrollment (Space Permitting)

Average of Next Nine Years (tgt+1)	$Cost	% Bdgt
Cost of Additional Sections, Supplies, & SPED	$306,681	
+ Cost of METCO Salaries	$110,662	
- State METCO Grant	-$183,744	
Total Cost of METCO Program	**$233,599**	3.1%
Metco Enrollment	**8.7%**	

The spreadsheet with details of the METCO cost model appears as an appendix to this report.

I. Administration

Findings:

- Lincoln's administrative costs are comparable to those in our peer towns.
- Small districts tend to share administrative costs. In Lincoln's case, our contract with the federal government to operate the Hanscom Schools serves this purpose.

Recommendation:

- The Task Force does not have any specific recommendations with regard to changes in the School's administration.

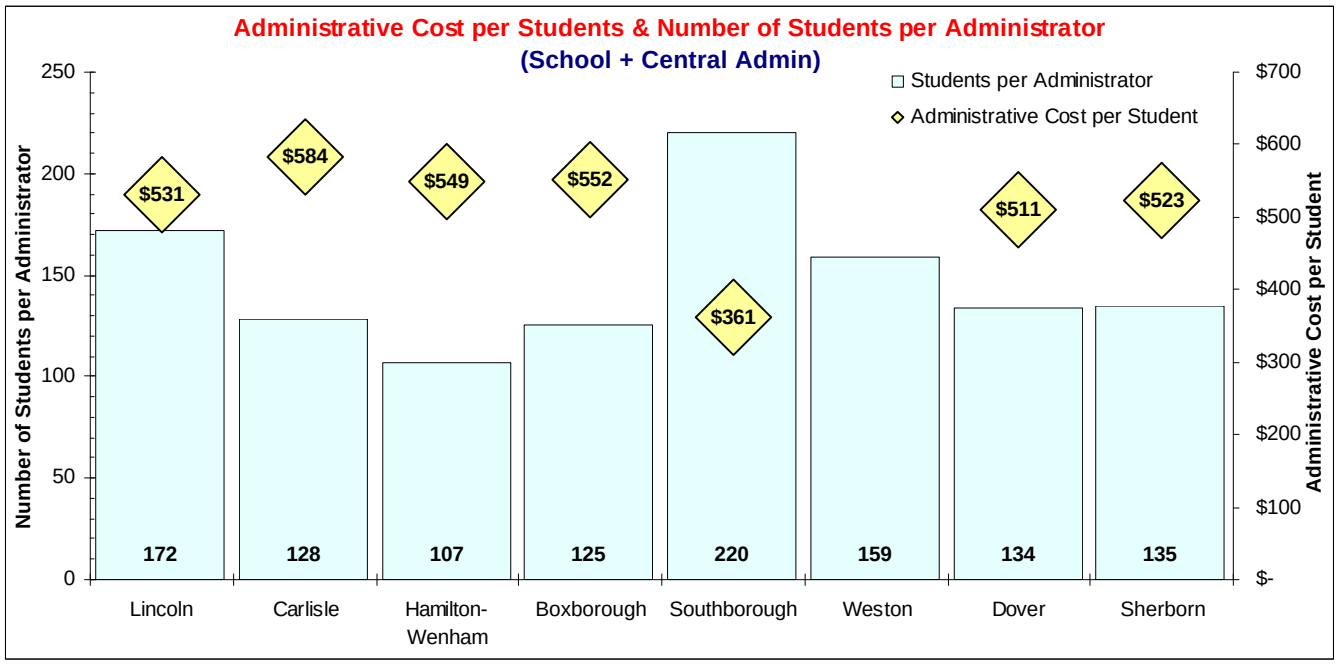
Discussion:

Lincoln's administrative team consists of a superintendent, an assistant superintendent, a business administrator, an administrator of student services, a principal and an associate principal. Lincoln has a five-year contract with the Department of Defense in which Lincoln pays 53% of the salaries of the superintendent, the assistant superintendent and the business administrator. In return for managing the Hanscom schools, the department of Defense pays 47% of their salaries as well as all other expenses for the Hanscom Schools.

This sharing of expenses for central administration reduces the per pupil costs of administration. Five of the districts in our peer sample share administrative costs with another district on a

percentage formula, similar to Lincoln's relationship with Hanscom. One, Southborough, shares costs with two other districts and, therefore, has the lowest costs. The districts that do not share costs have higher administrative costs.

Lincoln has an assistant superintendent which the other peer towns do not have, but Lincoln has fewer administrators over all. The other towns have curriculum coordinators, technical directors and special education chairs, for example, which Lincoln does not have. Lincoln's per pupil costs are $531, which is slightly less than the peer towns' costs, except for Southborough.



An analysis of the ratio of students to administrators shows that Lincoln has a slightly higher ratio than the other towns, except for Southborough. Weston, in spite of its larger size, is slightly lower.

If Hanscom were to close, or some other arrangement were made to operate the schools, Lincoln Schools would suffer a devastating blow to administrative costs. Lincoln would have to bear the full costs of administration or make a shared arrangement with another district.

J. Longer-Term Issues

Throughout the Task Force's discussions, several issues of a longer term nature arose. Although these issues were not specifically mentioned in our charge, the Task Force would like to point out how important they are and how dramatically they could affect the Lincoln Schools. We recommend that the School Committee consider these issues with the hope of developing contingency plans.

Findings:

- The Task Force finds that there is some probability that the number of children in the Lincoln Schools could increase dramatically over a short period of time. Two causes of such an increase would be changes in the utilization of residential land at Hanscom Air Force Base that lies within Lincoln or the construction of a large number of new housing units within the Town.

- The Task Force believes that such an enrollment change would put considerable stress on the Lincoln Schools. It would likely require major organizational changes and perhaps capital expenditures.

- The Task Force also recognizes that Lincoln benefits from its contract with the federal government related to the Hanscom Schools. If this contract were changed or was no longer available to us, costs that are now shared would fall on Lincoln alone.

Recommendations:

- The Task Force recommends that the School Committee plan for such adverse contingencies in advance, much as we hope that these plans will not be needed.

- The Task Force recommends a very flexible approach to such long term planning, including among the possibilities such things as regionalization of our middle school grades with another district and cooperative arrangements with another district to defray administrative expenses.

- In planning for large enrollment changes due to any factors, the Task Force recommends that the School Committee use the marginal cost methodology described above to forecast changes in operating expenditures.

Appendix 1: Task Force Charge

Introduction: As proposed by the School Committee at the Special Town Meeting on November 3, and confirmed by the Town Meeting vote approving the $283,000 supplemental appropriation to the FY'02 budget, a Task Force is to be appointed by the Chairs of the School Committee, Finance Committee and Board of Selectmen and the Town Moderator.

The following charge for the Task Force has been developed by the appointing group, after input and comment from an outside consultant and interested citizens.

Purpose: The overall purpose and goal of the Task Force is to review and understand key aspects of the operation of the Lincoln and Hanscom K-8 Schools to determine whether, and if so how, the school's demonstrated strengths and commitment to excellence can be maintained and improved within the available resources with the Town can reasonably provide.

The Task Force should understand and consider several important core values of the Lincoln Schools and their philosophic underpinnings. (See the attached Lincoln Public Schools Mission and Vision statement.) These core values include excellence, inclusion and diversity; the Task Force needs to keep these values in mind as it reviews school services and policies, which include:

Special Education Services

Faculty Planning time

Use of aides in the classroom

Class size

Middle School model

METCO program and its administration

Technology

The goal of this review will be to determine options available to the School Committee to maintain or improve the delivery of key educational services which would make better use of the Town's limited resources.

Membership: The Task Force shall consist of up to seven members, one of whom shall be a member of the School Committee. The Finance Committee and Board of Selectmen should each designate a member of their boards to act as liaison to the Task Force. These persons will not sit as Task Force members, but will maintain close contact with the Task Force as needed in order to facilitate inter-board communication. The Task Force may appoint other individuals and subcommittees as it deems necessary to expedite its work. The Task Force will select its own chair (who should not be the School Committee member).

Interaction with the Schools: The Task Force is not being established to usurp in any way the responsibilities or prerogatives of the School Committee, and should not interfere with or interrupt the regular activities of the School Committee or the school staff. The Task Force will need to obtain information about and gain an understanding of current school policies and procedures. The School Committee member of the Task Force will facilitate this; the Task Force should also have close contact with and cooperation from the School Administrative Council as an important resource. In undertaking its review, however, the Task Force needs to be sensitive to the concerns and time constraints of the professional staff of the Schools.

Task Force Implementation Plan: In addition to its contact with the schools, it is expected that the Task Force will consult with other Town boards and committees, with Town staff and with the public, as needed. It will also be useful for the Task Force to obtain information from other similarly situated towns and cities in the Commonwealth, as well as comparing Lincoln to other high quality local, state and national school systems.

Public Process/Reporting: Meetings of the Task Force will be open to the public and question from attendees should be encouraged. The Finance Committee and Selectmen will be kept regularly informed on the Task Force progress and periodic progress reports, as appropriate, shall be made public. A progress report should be made at the March 2002 Town Meeting.

A report to the School Committee and the Town will be made by November 2002, and will contain information and supporting data (which shall include expected budgetary and programmatic impact on the Lincoln Schools) on options and alternatives for the School Committee to consider and implement as it deems appropriate, in the preparation of its FY '04 budget. The Task Force may well decide to continue its work beyond the November 2002 report, if it determines further data collection and development of options and alternative will be useful. In any event, a report should be made to the Annual Town Meeting in March 2003.

It is expected that the work of the Task Force will inform and stimulate Town-wide discussion of the underlying values and philosophy which have guided the Lincoln Schools, and will extend and improve the Town's ability to deliver excellent education to its young residents at a cost that is appropriate for Lincoln.

Appendix 2: METCO Cost Model

Summary of Various Cost Approaches

"Empty Seat" Approach (INCORRECT)	FY03 Cost	% Bdgt
Cost of Supplies & SPED Services	$229,194	
+ Cost of METCO Salaries	$154,371	
- State METCO Grant	-$256,320	
Total Cost of METCO	**$127,246**	1.7%

"Tuition" Approach (INCORRECT)		FY03 Cost	% Bdgt
Per Pupil Regular Ed. Cost	$7,875		
Number of METCO Students	89	$700,873	
Per Pupil SPED Cost (excl. Out-of-District)	$10,083		
Number of METCO SPED Students	25	$252,063	
Gross Cost of METCO Program		$952,937	
- State METCO Grant		-$256,320	
Net Cost of METCO		**$696,617**	9.4%

"Variable Cost" Approach (CORRECT)	FY03 Cost	% Bdgt
Cost of Additional Sections	$268,330	
Cost of Supplies & SPED Services	$229,194	
+ Cost of METCO Salaries	$154,371	
- State METCO Grant	-$256,320	
Total Cost of METCO Program	**$395,576**	5.3%

Expected Impact in a Typical Year:

	Maximum Class Size	# METCO Students	Added Section
K	20	8	40%
1	22	11	50%
2	24	11	46%
3	24	11	46%
4	24	10	42%
5	24	11	46%
6	24	*Not Applicable**	
7	24	*Not Applicable**	
8	24	*Not Applicable**	

		$ cost	% budget
Total Impact on # of Sections:	2.7		
Average Variable Cost per Section**:	$90,844		1.2%
Total Additional Section Cost:		$244,522	3.3%
SPED Costs + Supplies:		$229,194	3.1%
METCO Salaries:		$154,371	2.1%
Gross Cost of METCO Program		$628,087	8.4%
Less: State METCO Grant:		-$256,320	-3.4%
Net Cost of METCO Program:		**$371,767**	5.0%

** Middle School always has 4 sections per grade.*
*** Average is for K-5*

Part 1 - METCO Program Inputs

1a

METCO Salaries	FTE	Gross	% METCO	Net
Director	0.6	$65,000	*100%*	$39,000
Academic Advisor	1.0	$57,544	*85%*	$48,912
Social Worker	1.0	$57,544	*85%*	$48,912
Class Assistant	2.0	$9,245	*45%*	$8,321
Bus Monitor	2.0	$4,613	*100%*	$9,226
Total		$193,946		**$154,371**

1b

METCO Grant	Formula	Grant
Funding per Student	$2,880	
# students	89	
Gross Grant		$256,320
+ Transportation *		$104,000
METCO Grant - Gross		$360,320
- Transportation *		-$104,000
METCO Grant - Net		**$256,320**

** Transportation grant is a wash item, as it is not part of the school budget*

1c

METCO SPED Analysis	Total	Lincoln	METCO	% of Total
Total Enrollment	732	643	89	12.2%
Total SPED Enrollment	112	86	25	22.3%
SPED % of Total	15.3%	13.4%	28.1%	
SPED Enrollment *	Total	Lincoln	METCO	% of Total
Out-of-District	4	4	0	0.0%
High Service	12	9	3	25.0%
Moderate Service	84	62	22	26.2%
Low Service	12	11	1	8.3%
Average Variable Cost of SPED services for All Students **:				$1,340
Ratio of METCO SPED Population to All SPED Population:				1.84
Average Variable Cost of SPED services for METCO Students:				**$2,461**

** Lincoln SPED enrollment includes pre-school*
*** Excludes out-of-district costs*

1d

Per-METCO Student Variable Costs	K	1	2	3	4	5	6	7	8
SPED Variable Cost per All Students	$1,340	$1,340	$1,340	$1,340	$1,340	$1,340	$1,340	$1,340	$1,340
Ratio of METCO SPED to Total SPED *	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84	1.84
SPED Variable Cost per METCO Students	$2,461	$2,461	$2,461	$2,461	$2,461	$2,461	$2,461	$2,461	$2,461
Cost of Supplies, Textbooks, etc.	$93	$97	$54	$72	$115	$94	$177	$177	$177
Per METCO-Student cost of SPED & Supplies	**$2,554**	**$2,558**	**$2,515**	**$2,533**	**$2,576**	**$2,555**	**$2,638**	**$2,638**	**$2,638**

Part 2 - Enrollment & Class Size

2a

Current Enrollment (FY03)	K	1	2	3	4	5	6	7	8	K-8
Lincoln Enrollment	84	63	79	64	87	58	69	79	51	634
METCO Enrollment	8	11	11	11	10	11	10	9	8	89
Total Enrollment	92	74	90	75	97	69	79	88	59	723
Current # of Sections	5	4	5	4	5	4	4	4	4	39
# Students per Section	18.4	18.5	18.0	18.8	19.4	17.3	19.8	22.0	14.8	

2b

Additional Sections from METCO Program	K	1	2	3	4	5	6	7	8	K-8
Target Class Size	18	20	22	22	22	22	22	22	22	
Target Class Size + 1	19	21	23	23	23	23	23	23	23	
Maximum Class Size	**20**	**22**	**24**	**24**	**24**	**24**	**24**	**24**	**24**	
Least # of Sections: Lincoln-only	4.2	2.9	3.3	2.7	3.7	2.5	4.0	4.0	4.0	31.3
Least # of Sections: Lincoln + METCO	4.6	3.4	3.8	3.2	4.1	2.9	3.3	3.7	2.5	31.5
New Section Triggered?	no	yes	no	yes	yes	no	no	no	no	3

Part 3 - Cost of METCO Program

3a

Cost of Supplies & SPED	K	1	2	3	4	5	6	7	8	K-8
Total Cost of Supplies, etc.	$745	$1,063	$595	$793	$1,150	$1,034	$1,773	$1,596	$1,418	$10,167
Total Cost of SPED Services.	$19,688	$27,071	$27,071	$27,071	$24,610	$27,071	$24,610	$22,149	$19,688	$219,027
Total Cost of Supplies & SPED for METCO	**$20,433**	**$28,134**	**$27,665**	**$27,864**	**$25,760**	**$28,105**	**$26,383**	**$23,744**	**$21,106**	**$229,194**

3b

Cost of Supplies & SPED + Additional Sections	K	1	2	3	4	5	6	7	8	K-8
Cost of Additional Sections	$0	$85,423	$0	$78,725	$104,183	$0	$0	$0	$0	$268,330
Cost of Supplies & SPED Services	$20,433	$28,134	$27,665	$27,864	$25,760	$28,105	$26,383	$23,744	$21,106	$229,194
Gross Cost of METCO Program for FY03	**$20,433**	**$113,556**	**$27,665**	**$106,589**	**$129,943**	**$28,105**	**$26,383**	**$23,744**	**$21,106**	**$497,524**
Add: METCO Salaries										**$154,371**
Subtract: METCO Grant										**($256,320)**
Net Cost of METCO Program for FY03										**$395,576**
									% Budget	**5.3%**

Part 4 - Projected Costs (pct of Budget)

4c Cost Projections for Fixed Enrollment (2 per Section)

Average of Next 9 Years (tgt+1)	$Cost	% Bdgt
Cost of Additional Sections, Supplies, & SPED	$514,427	6.9%
+ Cost of METCO Salaries	$156,877	2.1%
- State METCO Grant	-$260,480	-3.5%
Total Cost of METCO Program	**$410,824**	5.5%

4d Cost Projections for Variable Enrollment (Space Permitting)

Average of Next 9 Years (tgt+1)	$Cost	% Bdgt
Cost of Additional Sections, Supplies, & SPED	$285,477	
+ Cost of METCO Salaries	$105,805	
- State METCO Grant	-$175,680	
Total Cost of METCO Program	**$215,602**	2.9%