

**COMMONWEALTH OF MASSACHUSETTS  
BOARD OF EDUCATION  
\*\*\*REGULAR MEETING\*\*\*  
MASSACHUSETTS DEPARTMENT OF EDUCATION  
350 MAIN STREET  
MALDEN, MASSACHUSETTS**

**MONDAY, JUNE 19, 2000  
9:00 a.m. To 12:00 p.m.**

**MEMBERS OF THE BOARD  
OF EDUCATION PRESENT:**

Mr. James A. Peyser, Chairman, Dorchester  
Dr. Roberta R. Schaefer, Vice-chairperson, Worcester  
Mr. Charles D. Baker, Swampscott  
Ms. Patricia Crutchfield, Southwick  
Dr. Edwin J. Delattre, Boston  
Dr. Judith I. Gill, Acting Chancellor, Boston  
Mr. William K. Irwin, Wilmington  
Mr. Marcel LaFlamme, Monson, Chair, Student Advisory Council  
Dr. Abigail Thernstrom, Lexington  
Dr. David P. Driscoll, Commissioner of Education, Secretary to the Board

**ALSO PRESENT:**

Nancy Catuogno Varallo, Registered Diplomate Reporter

**COMMENTS FROM THE CHAIRMAN**

**CHAIRMAN PEYSER:** I wanted to begin with a couple of comments on some things that have been going on since our last meeting. In particular, the Joint Commission on Educator Preparation, which is a joint effort between the Board of Education and Board of Higher Education. The work is almost completed; it's in the process of generating its final report. I think the Commission itself has probably met for the last time and has taken its last vote. I want to comment generally on three basic areas the Commission has dealt with.

One is the approval of educator preparation programs. What they attempted to do was to recommend a system of greater accountability on the part of schools of education and other educator preparation programs, and to refocus teacher preparation, in particular, on greater subject mastery rather than pedagogical and educational theory preparation. The second area had to do with certification and recertification where, again, I think the Commission has recommended a renewed focus on subject mastery on the part of teachers and creating more openness for nontraditional candidates to enter the profession based on subject mastery and performance. Finally, in the area of recruitment and retention, the Commission is recommending a series of steps to strengthen and expand existing programs, and create new ones to attract more qualified candidates to the profession and establish a working environment that will encourage them to stay longer in the practice.

The Joint Commission has been in operation for close to 18 months, and during this time the Board and the Department have been generating proposals and draft regulations in most of these areas. In fact, there's been a strong amount of collaboration back and forth. Many of the recommendations that are coming out of the Commission are already embodied in draft regulations such as certification and educator preparation program approval and we have already adopted the recertification regulations. So I'm very comfortable with the process that has brought us to this point. I'm hopeful as we conclude this and try to tie off on some of these regulations that, in fact, we will realize most if not all of the recommendations the Joint Commission has made.

My second quick note concerns last month's discussion around measurement methods and issues related to the goals and strategies that have been adopted by this Board. I have been working with the Commissioner to try to synthesize

some of that based on the summaries that Ann Hess developed from that meeting. Hopefully over the next week or so I will be able to share that with you so we can move on to the next step.

With that I'd like to defer for a moment to Marcel to introduce the person who will soon be our newest member of the Board.

**MR. LaFLAMME:** Thank you, Mr. Chairman. With me today is Jody Kelman who is going to be a senior at Concord-Carlisle High School next year. As you have noted in previous comments, she was elected chair a week or two ago. Jody is going to be an active member of the state council this year and she has been a very vibrant contributor to discussions that we've had. I'm certainly pleased to introduce her as my successor.

**MS. KELMAN:** Thank you very much.

**CHAIRMAN PEYSER:** Welcome very much. Thank you for taking on this task. I'm sure Marcel has already given you the inside scoop as to what this is all about, but it's not all fun and games, as Marcel will probably let you know. It is a lot of work and I appreciate you taking it on.

**MS. KELMAN:** Thank you very much for giving me that opportunity.

**MR. LaFLAMME:** While I have the mike, and Jody can certainly help me with this as well, I'd like to give a brief rundown, for the Board's benefit, of some projects that the state council has undertaken this year.

I would really love to see an expanded communication and dialogue between the Board and the state council next year, which is something that I'm sure will be evolving. I would certainly invite anyone at this table today to come to a state council meeting, come with the Commissioner to the summer conference. I think there are questions and answers that could really be valuable in both directions as far as how the state council can help this Board to accomplish what we are looking to do. Simultaneously, there are several things that we could talk to you about, the student perspective on various things that we might be facing. I think that those might be some valuable conversations. So I extend that invitation to you.

This year MCAS somehow worked its way into our agenda. We had endorsed Mass. Insight's recommendation to this Board to adopt the high-stakes testing for the class of 2003 as well as holding a press conference in the aftermath of the boycott. The legislative efforts were a little bit more limited this year, but we did see one of our bills dealing with the standardized assessment form for student evaluation of teachers pass the Education Committee and languish in Ways and Means a bit, but that will be a continuing effort next year, being a filing year, we'll be looking at that.

We talked about school climate a lot at the beginning of the year particularly in the context of school violence and the connection between the two. We developed a resource guide, a compilation of speakers and programs and things that schools could do, a best practices conglomeration. We intend to distribute the guide eventually. The finishing touches are still being put on that but I think it will prove to be a valuable document.

Finally, the council was very pleased with the concentration on the office of student leadership. I think that's a really exciting avenue for SAC to pursue some of the things that we are looking to do, specifically on the issue of expanded student governance at the school level, but also on the Certificate of Mastery. I think it's really wonderful that the Department has done that and I think it would be interesting to see the interplay between those two groups in the coming years. Any other, Jody?

**MS. KELMAN:** Not that I can think of offhand.

**MR. LaFLAMME:** Other than that, I would just extend a "thank you" to everyone at this table. I have felt a very warm welcome since last summer. I would venture to say that everyone at this table, and I include Stan Koplik in that assessment, has gone out of his or her way to include me in what has been going on here and to bring my perspective into the discussion. I appreciate that. It's been an honor to be here and I thank you for that.

**CHAIRMAN PEYSER:** Marcel, of course, we thank you for the contribution you've made, and we did that last month, so I don't want to load on the praise, but again, we do appreciate the contribution you have made. It certainly has not been a matter of our allowing you to participate; it's been a matter of you asserting your participation and earning our respect along the way. So good work and thank you very much. And welcome, Jody.

#### **COMMENTS FROM THE COMMISSIONER**

**COMMISSIONER DRISCOLL:** Thank you. I'd like to give a brief update on the process of selecting a new superintendent of schools in Lawrence. The Board of Education and the Department have a very unique legal agreement with the City of Lawrence, Lawrence Public Schools, and the Lawrence School Committee. It's more or less divided into two parts. The first is around the selection of a superintendent, which we've been through once already. And the other is, once that superintendent is selected jointly by the Board of Education and the Lawrence School Committee, then we act in more of a monitoring role.

A screening committee was established, and by the agreement, both the mayor and I made our respective appointments. They are now in the process of interviewing and will present finalists to the Lawrence School Committee, hopefully by the end of this month. That appears to be the schedule. Then it will be up to us, as the Lawrence School Committee and the Board goes forward, to decide on a mutually agreeable candidate as a new superintendent for Lawrence. Chairman Peyser and I will be meeting with Mayor Dowling in the next couple of weeks to be very clear on the direction that we would like to see.

Our Spread the Word Program, which has been extremely active over the years, is a program established by the Governor's wife, Jan Cellucci, where people donate books and we then present them to primarily urban schools where kids may not have access to books. We have done this on a number of occasions. Some of them have been pretty big media events, some have just been quietly done, but thousands and thousands of books have been distributed and the program has been nominated for national recognition. We are pleased about that.

This Thursday, we have our annual Teacher of the Year festivities at the State House. The Governor will be joining us. I hope Board members may be able to join us. It will be in the Great Hall beginning at 10:30, so we hope many will be able to make that. That's always a very enjoyable event in which we get to not only sing aloud and praise one teacher, but through that person and through the finalists and semi-finalists and our other awardees we praise all our teachers. Our current Teacher of the Year, David Lussier, from Andover High School, is an outstanding young man. He has been appointed as a White House Fellow, and that's a very competitive process. He's one of the few educators that have been chosen. So we are very proud of him and pleased as he spends his time in Washington next year.

In your packet I have included the timetable for the revision to the history/social science curriculum framework and, essentially, we have begun by sending out letters to principals, superintendents, and professional organizations asking for nominees for the revision committee. We'll be meeting with a whole series of people this summer and we will be planning to hold three public hearings in different parts of the state this fall. We'll go through the usual revision process with the panel, and we intend to present a full draft to this Board by June of next year.

I want to make note publicly, because I let it fall through the cracks, that the Massachusetts Teachers Association has formally requested that the Board consider changing the time of its meetings to make them more accessible to teachers who, generally speaking, are busy in classrooms at 9:00 in the morning, during the school year. The Chairman and I have discussed that. As you know, we are scheduled through December and those have been set with the Board members, and we need to stay with that schedule. We are looking, after the first of the year, to make an adjustment on one of the meetings, at least, to respond to that.

I had an unusually pleasant experience last Thursday. I was invited, along with 300 other educators from across the country, to the White House for a strategy session, as the President called it, to address something that he and the First Lady have been talking about for quite a while, and that is the plight of Hispanic students. We all know the statistics, and while they are getting better, this is a major problem in this country. The statistics on the number of Hispanic residents in the United States, let alone Hispanic students, are significant. Then there are Massachusetts' statistics in terms of the number of dropouts and performance levels of Hispanic students. I had the opportunity to join in a round

table discussion with the President, Secretary Reilly, Maryland Governor Parris Glendening, Jeff Bingham, Senator of New Mexico, and Congressman Ruben Hinojosa of Texas to talk about the various aspects of this problem. The President has announced a five-goal project starting, naturally and rightfully, with preschool programs to try and see to it that the percentage of Hispanic students provided quality preschool programs increases dramatically. The project continues all the way up through high school and higher education. It was quite an experience to be in the East Room of the White House for more than two hours for that panel discussion. Unfortunately, the strategy session didn't receive much publicity, but this is clearly a major issue for us to address in education.

We are still in our unending quest to settle the contract with Harcourt. Hopefully we are in our final stages. It's been quite a process. It's not been negative by any means, it's just been long and careful. As you know, we are concerned about our ability to increase our involvement in test development. We are concerned about liquidated damages because, as Harcourt well knows, there have been problems throughout the country. So we want to make sure if they don't meet deadlines, for example, we are compensated, as an incentive. It's been lengthy, but we are wrapping it up. It's been that kind of good negotiation that occurs on both sides. I hope to wrap that up by the end of this week.

Finally, I do want to acknowledge that while she's remaining with the Boston Globe, Doreen Iudica Vigue is changing assignment. Scott Greenberger, who is here today, is taking over for Doreen who has been an education reporter with the Globe for a long time. She's done an outstanding job. She has one last human interest story she's going to do on the Chair and me. Doreen, thanks for all your good work and good luck in your new assignment.

## **PUBLIC COMMENT**

*Peg Bondorew*

**MS. BONDOREW:** Good morning, Commissioner Driscoll, Chairman Peyser, members of the Board of Education. Thank you very much for allowing me to comment this morning. I almost didn't hear my name called. I was too busy taking my first look at the document that you are going to be discussing today. It is unfortunate that there was such a tight time schedule that the people who had worked so hard on this document since February, and even before, did not have a chance to see it prior to this morning. We know that at the July meeting it will be too late. However, based on some of the word that has been going on, I wanted to offer a few comments, things to possibly consider, and some of these, in taking a quick look, I see have been addressed and others have not.

Equity should be interwoven with all the other principles and throughout the framework. Equity requires high expectations and worthwhile opportunities for all students. If the single-title course descriptions contain standards that are different from those listed under these strands, then -- as a matter of fact, I see that we now have descriptions listed under strands and other descriptions in what's called a multi-strand course, and an algebra or geometry course. It is quite confusing. And I wonder whom those courses are for. Are they for different students? If the single-title course descriptions are different than those listed under these strands or under the multi-strand courses, the question is why? Do the students in the "single courses" need to meet different expectations than those in a course that may be called Interactive Mathematics or Math Connections? And there is, by the way, no geometry in the first year of Math Connections, so even some of the courses that have been listed as integrated, or the NSF-developed courses, are not. Are they preparing students for different courses after high school? Is one for the high achiever and one for the not-so-high achiever? If the answer is yes, then the Massachusetts framework does not even meet its own Equity Principle.

I want to also talk about technology. Technology, especially computers and graphing calculators, not only influences how much mathematics is taught and learned, but what is taught and when a topic appears in the curriculum. And I do have to say that I was quite pleased with the changes in the narrative, especially on the use of the graphing calculator data, and I worked hard on that and other people did as well. The study of algebra need not be limited to simple situations in which symbolic manipulation is relatively straightforward. Using technological tools, students can reason more about general issues, such as parameter changes, and they can model and solve complex problems that were heretofore inaccessible to them. There is also a huge equity issue, and it was before. I do see that mention of technology in those course descriptions and I'm very pleased about that. I know that there was a question about forcing schools to provide technology at that level, but we have a big equity issue because the graphing calculator is allowed on the physics, chemistry and the mathematics SAT's, and it's required for the Advanced Placement exams. So if we have

some students who are becoming proficient in the use of this technology and some who don't ever see this technology, then we have a big equity issue.

On the use of algorithms, the DOE has been adamant in singling out the teaching of "standard algorithms", whatever they are. I noticed in the criteria, for example, radical changes. I recently sent to the Department of Education some comparisons of exactly what those changes were, one of them was that it singles out, and lists as a single content standard, the teaching of the standard algorithms. I'm wondering why that one content strand or content standard was singled out and included in the criteria. I suspect -- and this is not in your writing, because I just saw it, I suspect it may be connected with politics or a considered effort to undermine some of the Natural Science Foundation's programs which have a different method of developing number sense and the way they handle algorithms. Since I addressed the question of standard algorithms in February, I won't go too much into that now. But I will ask again: What is expected here? To see little cross-out marks with little 1's written here and there on paper? Or are we talking about students using a step-by-step procedure and being able to explain it? If that's the case, then I'm highly in favor of teaching of algorithms. Do we expect the "American parent" algorithm or the "Sister Mary Catherine" algorithm, the one we mentioned in February? Regardless of the particular methods used, students should be able to explain their method.

Another algorithm that was also mentioned in our previous framework was the Cambodian, and I will call it the Cambodian parent method, the one that a "Cambodian parent" will understand as well as the ones that the American parent will understand. Regardless of the particular method used, students should be able to explain their method, understanding that many methods exist, and see the usefulness of methods that are efficient, accurate and general. And I'm happy to say that quote is included in the narrative now of your number sense strand. And I want to say that most of these statements are paraphrased from the Principles and Standards for School Mathematics, a document that's based on extensive research. Thank you very much.

*Jonathan King*

**MR. KING:** Good morning, Commissioner Driscoll, Mr. Peyser, and members of the Board of Education. My name is Jonathan King. I live at 40 Essex Street, Cambridge. I'm a professor of molecular biology at MIT where I carry out basic biomedical research and teach in the core biology course that prepares students for medicine and the biotechnology industry. I'm the immediate past President of the Biophysical Society that represents 6,000 scientists across the country working on quantitative and mathematical problems in biology and medicine. I'm involved in science education, the development of science curricula through NSF-funded programs, and others both nationally and locally. And I'm also the parent of 4th and 8th grade students in the Cambridge Public Schools, and actively involved in public education there.

As we begin this new millennium, we have left the end of the industrial revolution and entered a new phase of human society that many call the technological revolution. In this period, becoming a productive member of society will require being able to grasp the nature of human genes, the rate of global warming, the ways in which bandwidth limits computer transmissions. We need the current generation of students to provide us with the productive scientists and engineers, the competent nurses and physicians, the skilled tradesmen and informed civil servants that we will need in this technological society. At the national level, the National Academy of Science, the American Association for the Advancement of Science, and the National Science Foundation have recognized the need for students to have a much deeper understanding of the nature of science and the natural world, and a much deeper understanding of the mathematical and quantitative aspects of the world we live in, than when we grew up. We often call this approach inquiry-based as opposed to the rote learning of pre-World War II science and math education. It is how all working scientists, mathematicians and engineers are now trained. It's really a development of the hands-on apprenticeship system used in the skilled trades. This approach is the opposite of the 19th century education model that's represented by the MCAS tests.

The math frameworks that had been adopted in Massachusetts represented a very important step in this direction. As you know, there was significant federal support for this over the past years through the National Science Foundation. Even among highly selected college students, we find many who have been damaged by the test-taking mania and substitute irrelevant precision for real comprehension. They can compute a value to many significant figures, but they cannot recognize that the value is off by a factor of a thousand. The existing framework builds the deeper numerical

understanding that students will need in the period to come, where the focus of math training was, it certainly was for me, to be able to make change, that is money change, or to assess if one had received the right change, to measure garments, or to mark dimensions for carpentry. These are valuable skills. But in a world of hand-held calculators, universal computing, and the global internet in the classroom, they are the skills of the 19th and 20th century, not the 21<sup>st</sup> century. This Board of Education is deeply out of step with modern understanding of the nature of math and science education and is doing a profound disservice to the students and the citizens of the Commonwealth. The proposal to revise the math frameworks represents a sharp step backwards. The resignation of the nine members of the Math Advisory Board testifies to how widespread this understanding is among those knowledgeable and experienced in quantitative education. The Board should follow the recommendation of math educators across the state and keep the existing math frameworks intact, not the thing passed out on Friday.

As someone experienced in the formulation of science policy, and I have been involved for 30 years with many federal agencies, I have been dismayed that the Board has continued to completely ignore the input it has received from, in this case, math teachers and educators. I attended last month's meeting. It may be that your leanings in the wrong direction represent the lack of experience or competence of the Board or its staff in these areas, or it may be that your priorities do not correspond with those of the hundreds of thousands of Massachusetts families who depend on public education for the future of their children. But regardless of the reasons, if you are unable to listen to those wiser, more experienced, more knowledgeable and more grounded in the realities of education in this Commonwealth, then perhaps you should consider stepping down and making way for those who can and will listen. Thank you for your time.

*Wilfred Schmid, Harvard University*

**MR. SCHMID:** Chairman Peyser, Commissioner Driscoll, members of the Board, my name is Wilfred Schmid, and I am first of all the father of a 2<sup>nd</sup> grader in the public schools in Lincoln. I'm professor of mathematics at Harvard University. And, finally, during the earlier revision process of the mathematics framework, I served as mathematics advisor to the Department of Education. In February, you conditionally endorsed a framework document, and I will call that the March 1 draft because that's when it was put on the Department of Education website after some necessary proofreading. When you conditionally endorsed the document, you mandated that it be examined for mathematical accuracy and soundness. It was examined and it was found to be mathematically sound and accurate. You also asked for the insertion of supplementary material to help guide classroom teachers. These additions are appropriate and helpful for the most part. They do not mandate any particular pedagogical approach, as some had feared. Finally, you asked that the document be reviewed in light of the NCTM guidelines that were released on April 12. The March 1 draft was, in fact, aligned with the pre-released version of the NCTM guidelines, and those turned out to differ only insignificantly from the final release on April 11. Thus, from this point of view, no change in the framework draft was necessary. Yet a number of changes were made, and what are these changes?

Almost all of them have the effect of weakening the standards contained in the framework draft. No doubt this was done out of fear of the MCAS test results that might follow the adoption of the framework. And I will come back to that in just a moment. Unfortunately, several of the changes in the latest draft also damage the mathematical integrity of the document. As far as I know, no mathematician was involved in this final revision process, and it shows. I'm certain that if this document were sent out for review for mathematical accuracy and soundness, your responses would be quite different. This is not the time and place for a detailed critique of the mathematical shortcomings of the latest draft. Instead, I would like to argue strenuously that something else is going wrong, in fact, terribly wrong. Assessment tests were supposed to help raise standards. Now, fear of tests is apparently driving the standards down. The standards should set marks to aim for and they should not become a qualification of minimal levels of accomplishment for graduation. It would be far better to set standards at a reasonably high level, let's say comparable to those in other leading industrial countries, and to specify separately a subset of the standards as a requirement for passing the MCAS test. I might point out that the TIMSS study, the Third International Mathematics and Science Study, the architects of TIMSS understood this point very well and at the 12th grade level in fact they had two mathematics tests, one called Mathematical Literacy and another called Advanced Mathematics. You should keep that in mind. That might also diffuse some of the unhappiness with MCAS. I strongly urge you to adopt the March 1 draft augmented by the supplementary material but with all the standards intact. As I tried to point out, there are other ways of dealing with MCAS concerning that is to just eviscerate the standards. Thank you.

**APPROVAL OF MINUTES**

**On a motion duly made and seconded, it was,**

**VOTED:           that the Board of Education approve the minutes of the May 22, 2000 Special meeting and of the May 23, 2000 Regular meeting.**

The motion was made by Ms. Crutchfield and seconded by Dr. Gill. The vote was unanimous.

**COMMUNITY SERVICE LEARNING - Presentation and Discussion'**

**COMMISSIONER DRISCOLL:** Mr. Chairman, we're going to have four people come forward. Originally, Senator Pacheco, who many know has been a great champion of Community Service Learning at the State House, was going to join us, but he was not able to do so. We do have his aide, Jessica Nordstrom, here on his behalf.

I want to introduce everybody from my left. First of all, John Bynoe, who is our administrator of Learning Support Services, Julie Bartsch from the Massachusetts Service Alliance, Jessica Nordstrom from Senator Pacheco's office, and finally Maureen Curley, Executive Director of the Massachusetts Service Alliance. If I might just say by way of introduction, Senator Pacheco and I agree on all but one point. We certainly agree on the importance of Community Service Learning. We talked a lot about making sure that students are engaged, connected, and motivated through activities. There is no better example of that than Community Service Learning. We have had some stunning examples of students who have turned their entire academic life around and more through their experience in Community Service Learning. Their writing skills, appreciation of the communities in which they live, and appreciation of the senior citizens they work with are but a few examples. The one place that we disagree is Senator Pacheco would like to mandate and have a requirement, at either grade levels or span of grade levels or something, that every student in Massachusetts undertake a community service learning experience. I have a problem with mandating something that is so effective through volunteering. I think it's far better if it grows, as it has here in Massachusetts, through the great work of school districts and community-based organizations throughout this Commonwealth as well as the efforts of the Department working with the Massachusetts Service Alliance to spearhead this effort. The Senator and I have agreed on a whole series of initiatives that we can jointly support that do advance the cause of Community Service Learning throughout schools in Massachusetts. We can create incentives and coax people through grants and connections to our school and district accountability system to promote Community Service Learning in our districts and schools. There are a number of things that we can do to help support Community Service Learning. With that, I will turn it over to our presenters. Who is going to start? John? Maureen?

**MS. CURLEY:** Thank you very much. It's a pleasure to be here. I want to thank the Commissioner and Mr. Peyser for inviting the Service Alliance to come here today. I'm the executive director of the Mass. Service Alliance. Our mission is to spread an ethic of service throughout the Commonwealth, and by supporting and promoting high-quality service and volunteer programs for all ages, so we can build stronger communities and have more active citizens. We do that in a number of ways, through technical assistance and training, but primarily we distribute through grants and monitor about \$13 million worth of federal and state money for service in three categories. One is AmeriCorps, which is a full-time service program; two, in-school and after-school service learning; and finally, our mentoring program. It is the Community Service Learning that brings us here today, and we enjoy a very close relationship with the Department of Education on this issue.

I want to address the four issues that the Commissioner asked in his letter to me, and I just wanted to say that we placed a purple folder at your desk which has some of the things that I might be referring to in them. The first question is: How is CSL different from community service? And we put a brief description in your packet. Community service is when people volunteer their time and talents to help address a community's needs. An example of that would be citizens volunteering on a Saturday morning to clean the river, pull tires out and litter, and make the community a better place. The second definition on your sheet is Community Service Learning, and that we define as when students are engaged in a structured service activity directly connected to the curriculum which improves academic learning and develops social schools. An example of that, taking the same type of activity, is when, a science class would be learning about the environment and would be studying the importance of good water quality. They then volunteer to work with the

local public health board to test water quality in rivers nearby. When that's completed, they go back to the classroom, discuss the results of what they've learned through the process, and then come up with suggested things that they as individuals or the community may do in order to address these needs. So as you can see, CSL is really about stated learning objectives linked to the curriculum with structured activities that address a real community's needs, and opportunities to reflect upon those experiences once it's completed. And we are not meaning to draw the parallel that community service itself isn't important as well, but there's a very defined difference between the two. CSL is a teaching and learning strategy that has positive impacts on students, teachers and communities. For the students, they are engaged in an active learning situation. Using classroom skills and in real-life situations, they are able to address students' various learning styles. In particular, someone who learns better by doing and seeing rather than just studying about something in a book. For teachers, we are told over and over again that they are re-energized. Why? Because their students get more excited about their program, about the subject, and in turn take more responsibility for their learning. They start to ask questions and make demands of the community. And, finally, the communities become much closer to the students and have a better partnership because they are taking on these projects together. And I think important for us, too, is that the community sees the students as leaders today, not leaders of the future, but people that are really making them accountable for some of the things happening to the community.

The second question I was asked to address is its link to the state curriculum. First of all, an important concept is that CSL is not an add-on. It is an integrated piece of the curriculum that we feel enriches the curriculum as well. Currently, with the Department of Education CSL grants that we are involved with, all applicants are required to relate their project to the frameworks, specifically to show how various frameworks are going to be addressed through their Community Service Learning. The best illustration, however, is again at your seat. There is a Promising Practices Guide which Julie Bartsch, my colleague here, has finished writing, and there is a unit before you on school bus safety. It's the second one, I believe. And it talks about a really very unique lesson plan in North Adams, where 3rd graders decided to deal with the issue of bullies on the bus.

They were being bullied and they brought it to their teacher and she developed this entire curriculum unit which involved a variety of things: The 3rd graders going to the 5th graders and getting their help figuring out how to handle this problem, interviewing the students, analyzing the problem, talking to administrators and bus companies and different employees, and actually in the end trying to provide strategies to address their own behavior. They looked at how they were contributing to this problem within their schools. They even talked on a larger scale about how to make buses throughout the city more user friendly. Then, I believe it's on page 6, there is a breakdown of ties to the Massachusetts curriculum framework where they look at the learning standards and then relate the learning standards to the activity, and then to the assessment as well. So you will see that there are a number of different standards that were met through this curriculum. Julie obviously can speak much more in depth about that and other examples.

This is only one of 54 currently funded programs by the Department, not to mention the ones that are already out there that do not receive either federal or state funding. You're probably also aware that seven of the schools in Massachusetts have been chosen as National Service Learning Leader Schools which is a two-year commitment in which the schools agree to both improve their own program as well as to train and help other schools in Community Service Learning. So we have a lot to be proud of in this state for those school systems.

The third question you asked me to touch upon was the relationship between CSL and character education. And this is one that we love to talk about because we think character ed. is embodied in CSL. You can't do CSL without improving or becoming more aware of values in our society. These activities are vehicles for character development, active character development. In 1997, a Brandeis study found that schools with CSL provided a climate of caring within the school, that people started to look beyond themselves into the community; good citizenship practices learning through the experiences of working in the community; social skills development, working with adults who model behavior that value character ed.; and that cooperation, concern for others, concern for property, responsibility, reliability, were all part of the CSL basic. Finally, the reflection, which is a very large part of CSL, which is really specific activities and discussions such as journals and discussion groups, reinforces positive behavior, critical thinking, and also clearly problem solving. Problem solving as a class.

My final comment will be a recommendation. We have a recommendation that we would like you to consider today, and that is to establish a Board-sanctioned advisory council on Community Service Learning. We think that this would



help us, and the Commissioner as well, to continue to support and promote CSL. As the Commissioner mentioned, meetings between Senator Pacheco, the Alliance, and the Department established 10 different things that we would like to try to do to promote service learning. So the goals of this council would be those things as well as generally promoting service learning as a method of teaching and learning. Of course, we would also find ways to encourage CSL development through professional development, because we know that this is something that teachers and administrators need to learn more about. I think we are prepared and have the resources to try to make that happen. The composition we propose would be very similar to your other advisory councils, representing teachers, administrators, students, CSL experts, and I would like to really emphasize that community people be involved in that as well so there can be that link. Thank you very much.

**MS. NORDSTROM:** I'd like to thank the Board for giving us this opportunity for speaking on CSL, and the Mass. Service Alliance for such an informative presentation, and I would also like to apologize for the Senator not appearing today at the last minute. He was detained in the district. But that does not dilute the Senator's longstanding commitment to CSL. He believes CSL has proven, as Maureen stated, to have a real and positive outcome through the state and that it connects students beyond the world of textbooks, and because of this he believes that CSL should be replicated and that everything, every initiative should be taken to do this. This can be done in part by establishing an advisory board to the Department of Education. I think Maureen basically stated everything, but the board would be enabled to promote and monitor CSL throughout the Commonwealth, and I think that is an important goal of everyone here. I will leave it at that. I thank you for your time.

**MS. BARTSCH:** I would like to say just a few words as an educational practitioner about service learning as a strategy for teaching and learning. Community Service Learning does many things for young people. But in the context of the conversation today, it is a powerful strategy. In your handout in this curriculum guide that is a draft with 20 units, the intention was to tap some of these teachers who have designed amazing instructional strategies and units that come right out of the curriculum and capture it in a way that can be replicated by other teachers in certainly addressing the important pieces of frameworks and assessment. And in each of the units you will see as you look through, the standards are continually referenced. We have also looked at various methods of assessment. You will see rubrics for performances, for portfolios, and also sample MCAS questions. This draft was started probably about a year and a half ago when our focus was, I think, the state open response questions which were certainly a challenging area. So in each unit there is an open response question that relates directly to the topic that is referenced. I would also like to speak to Senator Pacheco's legislation about mandating service learning.

As a school practitioner, I was director of curriculum instruction. What I found is that it was the innovative teachers that would be willing to take on an initiative of programs that took children out of the classroom, took them into the community. I worked with Michael Sentance on his Spread the Word. I think the school district I was in, we were the first school to support this effort, and it was a handful of teachers, again, who would be able to rise, go above and beyond. But some kind of endorsement, I guess short of a mandate, I think would make service learning a more intentional strategy that's used by teachers, and we are hoping that this is one of the issues that this advisory board would get to. So I just want to really endorse the strategy. I think as Dr. King said, it's inquiry based, it's hands on, and, most importantly, it gives young people a context for what they are learning. In the larger guide, there will be several units that come right out of the curriculum, and I'm just going to give you one real quick example. One unit is called Ordinary Heroes and it is a partnership between 9th graders and 5th graders that look at the notion of heroism. In the 9th grade students take the somewhat abstract concept of archetypes in literature, a teacher for instance, and are able to apply it to heroes in their own community. In the process they do a lot of interviewing and writing, they make analogies between people they are interviewing and characters they are reading about in their Man or Mythmaker text, and the culmination is a ceremony at the end of the year where students identify nine or ten ordinary heroes in the community and have a ceremony and acknowledge their work. In the process these students are not only learning language arts skills, but they are certainly learning history, social studies, arts. Just by nature I think that this work is interdisciplinary. That's my comments here.

**MR. BYNOE:** I would just like to close by stating or commenting on the ten recommendations that were given to the Commissioner about ongoing support. In particular we have done two things. One, beyond making the frameworks part of the CSL grant, we have also put CSL in several other competitive grants such as character education, PALMS, Eisenhower, science and math. Also, I'm pleased to announce that just this morning officially we got notification that

we will receive a \$290,000 per year grant from Learn and Serve America from National Service for Community Higher Ed. Schools Partnerships grants, where five districts will partner with the community and higher ed. to promote Community Service Learning. Those districts are Hudson, Williams, Sharon, North Adams, and Framingham. They'll receive approximately \$50,000 a year for the next three years.

**DR. THERNSTROM:** Thank you very much for coming. As all of you must know, this whole question of mandated community service programs has been the subject of litigation in other states such as Maryland where it is mandated. There have been a couple of very important questions that have been raised. One is the definition of what constitutes community service and, related to that, whether it is not permissible for students who, for instance, on their own in a voluntary way, work through their local church. So you've got a church/state problem here if it were to become part of a mandated service program for students who work through their local church on all sorts of real service projects. Others who have opposed the mandated programs have said there's a very constricted definition of service that is imbedded in such programs, aside from the whole question, which I also have difficulty with along with the Commissioner, of mandating this kind of activity. There is a real problem imbedded in the very nature of the program of what counts as proper service.

**COMMISSIONER DRISCOLL:** Okay. Mr. Chairman, if I may, because I know we are running over, I do want to point out that part of the ten recommendations, which I think I helped develop, was the establishment of an advisory council, and I am going to bring that recommendation to this Board. I think that's a very appropriate vehicle to bring community-based people along with teachers, practitioners and others to talk about these very issues. So I will be bringing that back to the Board, and the Senator also endorses that. So thank you very much.

**DR. DELATTRE:** I don't have a question, but I would like to make a comment. When you undertake to be advised in these matters, I hope you will notice the kind of prejudice that's built in against book learning in programs of this kind. I don't have any objection to supplements to book learning, but I do have objection to programs that discriminate against book learning. If you look at the recommendations here in this list of 10, notice that the third one says, "Explore ways to incorporate the use of CSL throughout the Department's competitive grant programs in order to integrate real-world experiences into the curriculum." Thoreau quite rightly pointed out that we reserve the word "real" for what we prefer to believe matters. When you say "real-world experience" is what goes on outside the school, you're effectively saying it's more important than what goes on inside the school. Experience in a classroom is every bit as real and its consequence is every bit as real as any experience everywhere else. Reality is not just outside of schools, it is every bit as much inside. And reference to these other things as "real-world experiences" is really, and I have seen it to be for over 30 years, a covert attack on learning from books.

**MS. BARTSCH:** May I say a word? I think the service learning initiatives that I've been involved with and worked with teachers on in no way supplant book learning. In fact, in many cases it begins with book learning. But service learning adds an opportunity to enrich and deepen, and really ensure that young people understand what they are learning. It allows them to make a contribution, and I think all of us know that when we make a contribution and can see the connections, things really stick. So I think that's a very legitimate concern, and maybe we need to be careful about wording, but certainly what we're talking about is very much book learning as well.

**DR. DELATTRE:** It's not just words about learning. I don't know how many students you've talked with over the years, I've talked with a lot who tell me they have a very strong preference for Community Service Learning and projects of that kind because it means they have less homework.

#### **UPDATE ON SCHOOL PANEL REVIEWS**

**CHAIRMAN PEYSER:** The next item on the agenda is an Update on School Panel Reviews. As we are all aware, in May there were eight middle schools across the Commonwealth that were evaluated by review committees, specifically to determine whether they should be referred to the Commissioner in order to be declared underperforming. Some activity has occurred over the last couple of weeks, specifically with respect to that determination and those referrals. These two things were paired together because Juliane Dow will be the principal spokesperson on both. Then we'll work into Adoption of District Performance Standards which had been the subject of our discussions a couple of

months ago and are now back for our approval in final form. So Commissioner, if you have something to start with. If not, we can turn it over to Julianne.

**COMMISSIONER DRISCOLL:** No, I think most people know about the school reviews. It's been well publicized. And I agree with the Chairman, I think it's important that the Board address the issue of district regulations.

**MS. DOW:** For those in the audience who might not be aware of the eight schools that we reviewed: we found two to be underperforming. We reserved judgment for three months on four others, and found two to have in place a sound plan and the conditions for its successful implementation. All of these schools are very much in need of the state's ongoing support, and they will have priority for support from the programs and services available from the Department. All who participated have been given a \$25,000 grant to be available immediately for work to occur over the summer. We have been doing two things through this process. One is taking a look at those eight schools. The other is trying out a new process. And I want to just say that we are very pleased.

The process that we developed is not perfect, and we will make a few changes in it as we go into next year, but overall we think it worked very well. Participants felt that having two clear guiding questions to lead them through their inquiry and time to receive and study materials in advance -- somewhere between four and seven hours per school -- really helped them get a good sense of the school. There was a substantial body of information to study in advance of visiting the schools. I think next time around we'll try to capture another hour of the day actually at the school site. Overall, participants felt that having five or six people spread out over the school to do classroom observations, interviews with students and faculty, as well as having meetings with the school leadership and district leadership team in the afternoon gave them a good sense of the school and its potential for implementing an improvement plan. One common mission was to evaluate the extent to which the leadership and faculty at the school have really embraced and understood the plan. The Department will be meeting over the next couple of weeks with leadership from the schools and districts to talk about the findings in more depth and to discuss next steps and the assistance that will be needed.

I'd like to take the opportunity to publicly thank the people who participated in this process. We had a group of very talented practitioners from across the state who contributed their time, much of it in the evenings and over the weekend, doing the orientation and the study of materials. There were also two very long days during which they were released from their responsibilities in their home districts to participate in this process. I think folks felt like they learned a lot from the process. They contributed with great seriousness and focus in an effort to help these eight schools, and are very hopeful that the information that they've provided back in the written reports will go on from this point forward to help improve the education of kids in those schools. Paula Girouard and Dean Elson from the Department staff did a particularly outstanding job chairing these sessions. We also received substantial help from Ledyard McGadden at School Works who is a contractor for the charter school areas.

We are in the process of doing an evaluation of the process. We'll share with you a written report on that in the near future. Fact-finding teams will be organized in the near future to go into underperforming schools at the beginning of the new school year.

**CHAIRMAN PEYSER:** Julianne, I want to thank you and the Commissioner for moving expeditiously with respect to these eight schools. As you know, when we adopted the accountability regulations, we did make provisions for doing an early review in those cases where it was warranted not only by low performance on MCAS generally, but performance that was getting worse over time, based on at least the two years of data we had. The purpose for doing that is twofold.

One is to make sure we intervened in cases where there was really no reason for delay or something that was at least potentially wrong in the school, but the other was to help develop the process. So we got a head start for the time when we'll have the requisite data to make these initial findings, to send in review teams or to do reviews of schools in much greater numbers. It was very helpful. The action that has been taken is an historic one and one that needs to be noted certainly by Board members here but also by others observing.

Another comment I want to make is that it's important for people to understand that the school and district evaluation system, in this case the school evaluation system, is not about MCAS only. I think the evaluations demonstrate that

quite robustly. There were eight schools that were identified as a result of poor MCAS performance, but only two of them have been recommended for underperforming designation. Others have been essentially put on a "watch" list, and a couple of others deemed to be okay in terms of improvement plans and capacity for carrying them out. So school evaluation is not about MCAS, it's about an overall evaluation of the quality of schools. MCAS is merely a red flag and a starting point. I also want to commend you for making note and coming back with some reflections on how the process worked, how it might be improved next time, and we will be very interested in that. I think we'd also be interested in hearing more as time goes on about the kind of approach that the fact-finding teams will be taking when we go into at least these two schools in the fall.

The other thing that needs to be on your radar screen and ours is that, at least in the case of these two schools, they are going to come back with school improvement plans for our approval, and we need to have at that point, if not a strategy, at least a framework or understanding for how we're going to evaluate the school improvement plans and what constitutes an improvement plan that is worthy of our approval. The members of this Board need to do some work between now and the time when those school improvement plans come back so we are prepared to exercise our judgment. But, again, I want to congratulate you, Juliane, and the Commissioner for moving ahead with this.

**DR. THERNSTROM:** I want to thank you, too, Juliane. As you know, I have been a bit of a skeptic here. We are at the point at which I think this is improved. We are at the point where we need to see how it works and learn from the process. I look forward to that. I do want to second what Jim just said.

Looking ahead, the problem of how to evaluate school improvement plans seems to be a serious one. I'm looking, for instance, at the contrast between Dearborn and Kennedy versus -- I'm just looking at two back-to-back pages here -- versus the two schools Arlington and Lynn who were deemed underperforming. When you look at what the leadership and the faculty are saying, at the point at which they get the rhetoric sounding like the rhetoric of the Dearborn principal and teachers, for instance, will they have an improvement plan, in effect? And I do think we want to be very careful that satisfactory performance is not a matter of packaging.

**MS. DOW:** The ultimate test, of course, is to see whether improvement in student performance is accomplished, and so this process doesn't tell us that with a certainty. It does give us an indication of whether people have carefully analyzed what the situation is for students, what the performance now is, what the barriers are, whether they have a plan that seems thoughtful, and they are able to talk about it. One of the strengths of this process is that we didn't just look at documents. At one point in the evolution of this system, we were talking about having a process where we would essentially do a desk review, where we looked at more data and more documents. But in having people go out, the whole school community could talk about the plan and what they were doing and what they learned and reflected on and what they were trying. They don't know for sure whether this will make a difference or how much of a difference it will make, but they have a hypothesis and they are trying to implement changes that they believe should make a difference. And I think that's what the final proof of this will be as we follow these schools and look at differences in outcomes between places that seem to have a plan and sound leadership and good faculty engagement and those that haven't evidenced those indicators.

**DR. THERNSTROM:** Suppose their MCAS scores don't go up a lot. They could legitimately say to us-- Look, you have pointed to other schools that you did not call underperforming with the same MCAS scores. This is a very complicated area, it seems to me.

**CHAIRMAN PEYSER:** You have a right to raise the point. I think it underlines the importance of developing a cadre of skilled and trained evaluators with sound educational judgment to cut through some of that. None of this, of course, guarantees that the results will be what we hope or expect. But in terms of being able to make judgments about whether the packaging is right but the substance is not there, ultimately we need to rely on people who are qualified to make those kinds of judgments. With respect to this process, that's the biggest challenge.

**DR. THERNSTROM:** I agree with that entirely. You know, this rises or falls on the quality of those who are implementing the process.

#### **ADOPTION OF DISTRICT PERFORMANCE STANDARDS - Discussion and Vote**

**CHAIRMAN PEYSER:** If we could move on to the proposed district performance standards where we are hoping today to have a discussion and vote on these, that would be most productive.

**COMMISSIONER DRISCOLL:** Yes, Mr. Chairman, just two very quick comments. This is one of those things that I think you could debate forever. In fact, many times we decide something and then we edit it and we go back to where it was before. So we make it longer, then we make it shorter, then we make it broader, then we make it narrower. I hope Board members are comfortable that we have it as right as we should at this point. The real proof will be as we use it. I thank all Board members for their input. This has been a long process. Secondly, I hope you have a page marked "draft" for a new page 4.

**MS. DOW:** It was on the table and if you didn't find it, I have additional copies.

**COMMISSIONER DRISCOLL:** Let's make sure everybody has one. What we essentially did was take the financial management and break it into two parts, thanks to the scrutiny of the Chairman. That is, of course, going back to what we had before, but I think rightfully so. I certainly endorse this. I think it's very good. So we now have seven items under the Key Question under Management, and I would submit that as part of the package as amended.

**CHAIRMAN PEYSER:** Let me just open it for discussion, the standards, and take it from there. Marcel?

**MR. LaFLAMME:** We are referring to the written comments and specifically the summary of the MTA comment. I'm interested in the last two bullets that were given about the feasibility of evaluating 70 districts per year. I know that is something we wrangled with a couple of months ago. But is there a sense now, having been through these initial eight, for 70? I mean, is that feasible?

**MS. DOW:** First of all, the eight reviews that we just completed were eight school panel reviews. The 70 that's being referred to here are the week-long on-site district reviews; they are the comprehensive review. This spring, we did do seven pilots of a process that was designed to help us develop the inquiry tools. They didn't really utilize the whole protocol that we'll use in the fall. We scheduled 12 reviews for the fall. We expect to deal with about 45 of these in the coming year, not 70.

We'll have some distinct processes for looking at vocational schools, charter schools, and regional high schools because those are single school districts and we can treat them somewhat differently. Obviously, we shouldn't need as much time to go into a single school as we need to go into a district that has 18 or 20 different schools where we are trying to look at the sum of its parts. So we are starting out developing the protocol for districts that have multiple schools, and that will really be this fall a pilot because we'll be using for the first time the full protocol and the evaluative rubrics. We have those 12 districts and have begun to work with them already in connection with what the schedule and documentation is to be assembled. I think we'll see this next year.

We needed to try it, we needed to learn from it, and see what's feasible. We'll be thinking, as with the panel reviews, about how many of those we can do and do with good quality next year. The same thing will be true of these district performance evaluations. As we have to bring on new staff, full-time staff, as well as train consultants, we have a process that will be going on over the summer of bringing in people for an introductory session, and then having training in the fall. And, you know, in part it will depend, can we find the people and get them trained, and we won't do more than we can do at a good quality. That's what we have promised. But our goal for next year is to do 45.

**MR. LaFLAMME:** And just in this eight they mention, as we would expect them to, the importance of inquiry on evaluation times, so this summer, is that a piece of it?

**MS. DOW:** I have been having discussions with district leaders about what is feasible for including active practitioners in this process. And the discussions have ranged from having people take a leave from their regular duties to spend half of the time working with us on this process and spend the other half in the district doing some kind of special leadership development effort in the district. That might be mentoring of new teachers, it might be curriculum development or review of some sort. That seems to be feasible for some of the larger districts where some of those districts already

have a leadership development track, and are in the habit of at least periodically giving people a year to do something like this. For many of the smaller districts, it's not possible.

I've begun to discuss with them whether it would be possible for them to do four rather than eight reviews. That's still probably too much. We think people need to participate in at least two of these to add value to the process, because it's in doing multiple visits at multiple sites and experiencing that diversity of practice that you start to have enough perspective to bring back and contribute. So we are actively working on the development of what we've called the leadership development program where we would bring practitioners into this. And it may be that it's not so much that they are yet ready to contribute fully to the reviews as they are going to learn tremendously from it. We especially intend to invite those districts that are scheduled for review two years out to have people participate in the review at this stage so that they can go back to their districts and inform practice to hopefully improve in some of the areas where they have become more attuned through this process. We are actively pursuing teachers and administrators in this process.

**DR. SCHAEFER:** I just wanted to pick up on something you said in response to Marcel's first point about the number of districts. You mentioned that charter schools were going to be going through this review as well.

**MS. DOW:** We are in the process. What we plan to do is coordinate this process. Charter schools, every five years, go through a process that should ensure that there's a look at the same qualitative indicators that we are looking at in all schools and districts, but it shouldn't be another thing added on top. We need to first get some of this solidified about how we're going to look at the other districts, but then we'll be working together with the charter school leadership to talk about how we have one unified review for the charter schools. Similarly, for the vocational schools. Right now we have an outside audit of sorts for those who are participating in the High Schools That Work program. We also have NEASC doing reviews in all of our secondary schools. When we have a secondary school that is its own district, it will have had at least at some point in its recent history an on-site team of practitioners who have looked in detail at curriculum instruction and assessment, at conditions in the school and climate and so forth. So we're going to try to coordinate those processes so we don't duplicate efforts, and that we take good advantage of the other kinds of thoughtful school quality reviews that are already occurring.

**DR. DELATTRE:** Might I comment on a couple of the specific items? I will vote for these, of course, but it seems to me that there are three basic weaknesses in the way these are proposed. One is that they are focused too much on action and insufficiently on action in relation to policy and contract. For example, if you look at Teacher Quality, item 2 on page 2, number 2.1 says, "Recruitment and Hiring: The district recruits and employs qualified professional teaching and support staff whose knowledge, skills, and experience are sufficient to foster a high level of student achievement." Your evaluators are going to care a little about that, depending on how much time they spend and how much they know. It seems to me these kind of items ought to say things like, "The district has policies, practices and labor contracts that enable the appointment, and retention of qualified teachers," and then add, "and does, in fact, appoint and retain such teachers." If you're going to do a comprehensive evaluation of a school or a district that's on a cusp or that's demonstrably underperforming, you want to know what the issues are that are really governed by contract, law, local regulation, policy, and practice what they can rise to and what they can do. If it's just that they hire good people, your team is not going to get into that, and you're not going to get to the roots of what the problems are in some of these places where they are hiring the best people they can under the circumstances, but they can't keep the best people or they have one provision or another that means they have to let the wrong people go.

Second, there are parts of the text where the language is just too soft. It's not straightforward enough. If you look at Student Support Programs and Services, item 3, look at 3.1, Early Childhood. "The district provides early childhood programs and services that support the development of reading readiness." I don't want support for the development of reading readiness, I want them to develop reading, right? I want the children to learn to read. And if they are not going to learn to read, I want them to become ready to read, not just to support it-- to be it. That's what good early childhood education is. It's not in support of something.

Finally, I would criticize some of these on the grounds that they are too narrow. When you have the Academic Support Services, item 3.4, "The district provides academic support services in reading, writing, and mathematics and science to students who are not meeting grade level performance expectations." That's great. How about the students who are meeting or exceeding grade level expectations? What's the district going to do for them? I'm not only interested in the

youngsters who are having trouble, I'm interested in whether the school is doing everything it can for the students who are doing the best across the board. That's underperformance, too. The fact that the kid does great in his coursework or she shoots the lights out on MCAS doesn't mean that a school is performing up to that standard. So it's not enough focus on policy and contract, too soft in the language, and too narrow a focus.

**CHAIRMAN PEYSER:** I appreciate those comments. On the issue of policies, practices, contracts and such constraints, I would hope that in the evaluation process, especially around personnel issues, to the extent the performance of a district seems to be wanting, that the evaluators look closely at the policies, practices, and constraints that may be causing performance to lag. It might be just in terms of the use of time that the evaluation of those policies may not make sense if the performance is high and acceptable. Certainly if it is less than that, that would be one of the first places I think the teams ought to look. I do appreciate also the comments about the language in some cases being too narrow or too ambiguous. This is one of those areas where in actually applying the standards, we ought to be looking very closely at whether we are establishing expectations for evaluators or guidelines for evaluators that are insufficient to the task. As part of the reflective process here as we go forward about what works and what doesn't that Ed's comments ought to be taken into account.

**DR. SCHAEFER:** Could we look at it again and modify some of the language in this to take account of what information Ed has raised?

**COMMISSIONER DRISCOLL:** We hope the Board will vote today because we need to get going, but clearly the Board gives us the opportunity to look at corrections and editing. On the issue of too soft, on the early childhood example, that's something we would change. On the academic support, that's something we'll have to look at. Of course, we are relating that one to the line item in the budget in the interest that people make sure they have plans for kids who are performing, but your point is well taken. And then on the other, I think you're right. Hopefully, anything to do with policy and collective bargaining would be picked up, and it's a very good point.

**CHAIRMAN PEYSER:** But there are procedurally no restrictions on Board members offering amendments and for us to make changes.

**MS. CRUTCHFIELD:** I'm happy to vote to support this and to move forward with it today. We have to step out of the box and do it. But the other piece around policies and procedures and looking at them, I'm hoping that we are not only looking for problems, but we are looking for best practices. It is one thing to say, "Oops, there are problems here, let's look at what's not in place." It's another thing to say, "This is working beautifully and how can we provide this as an example," not to replicate, because things are different, but to provide as an example of the best practice. So are we celebrating here what is working well? I'm sure there's very much that is so. I do believe that this will evolve as we step out of the box and move forward, and we'll make adjustments as we move along.

**DR. GILL:** Again, because this is an iterative process, I hope that at the end of the first year the Board members have an opportunity to have a Monday session in which we review with Julianne the kinds of things that she has learned in the first year. That would be very instructive for us and, hopefully, we will be able to talk about some of the best practices and highlight those as well as the kinds of changes that you believe are needed and that we would like to comment on. But I too believe you need to get started.

**MR. LaFLAMME:** It may well fall into the category of post-vote tinkering, which is fine, but I would like to see some follow-up on Dr. Delattre's third comment about academic support services. I don't know whether a quick discussion about that would be fruitful in terms of direction on that tinkering, but I agree with the idea that we are fleshing this out. This is the framework for a process that the actual evaluators will be taking to the next phase. I don't think we can really flesh it out unless that point is addressed.

**DR. DELATTRE:** Please note that I said at the beginning of my remarks that I intended to vote for this and I certainly didn't intend that we should revise it today. I was suggesting a direction in which I would take various revisions, subject to counsel from Board members, with you, Dave, but I didn't mean to rewrite it here, and I will call the question if you want.

**On a motion duly made and seconded, it was:**

**VOTED:**           **that the Board of Education, in accordance with G.L. C.69, §§ 1B, 1J and 1K and the Regulations on Under-Performing Schools and School Districts (603 CMR 2.04 (3) (b)), and having solicited and reviewed public comment on proposed District Performance Standards, hereby adopt the District Performance Standards, as presented.**

The motion was made by Ms. Crutchfield and seconded by Mr. Irwin. The vote was unanimous.

**MS. DOW:** As we develop what will sit on this foundation, we will be looking at the indicator level. We intend to address the processes both in the cases where we found positive outcomes as well as where it's negative for the reasons that you raised, and we are looking for the performance for all students, including the gifted and talented.

**COMMISSIONER DRISCOLL:** Mr. Chairman, as the math people come forward, I have two comments. First, this whole process has a tendency to become, looking at the negative, the least common denominator. We are seeing how it works. We don't necessarily have the expertise in Malden to tell everybody what to do, so we need to partner. And as long as districts are making a reasonable progress this should not be any kind of a negative. And that's what we assume will happen. We'll learn and they'll learn and it will be a very positive process.

**CHAIRMAN PEYSER:** Just to follow up on that and underline that point. This is related to the underperformance regulations. And while there is some mention of student performance in the standards, it will pale in comparison to the number of standards that are not directly related to student performance. But I want to be sure for members of the Board, as well as others who are listening, that in terms of declarations of underperformance with respect to districts, we are looking primarily at student achievement and results. With respect to poor performance, or in the absence of performance on the student achievement side, we are not going to rush to declare districts underperforming because in some cases they are falling short, except in some cases where there's an egregious kind of problem, mismanagement, corruption, violations of state law or other things. So the protocol is intended to be used for two purposes. One is to provide a general evaluation of school districts, which is useful for improvement of performance. The other is to inform the decision about underperformance. But, again, the issue here is that at the center of all this is student achievement and performance.

**COMMISSIONER DRISCOLL:** Before we continue, I want to take two seconds out to thank two employees who are leaving us. Jose Afonso, who has been with the charter school office since its inception, does a tremendous job. And Celine Toomey with teacher quality who's going on to Stanford University. So thank you both for your great work.

#### **REVISED MATH CURRICULUM FRAMEWORK IN MATHEMATICS - Discussion**

**CHAIRMAN PEYSER:** Yet again, the Board is demonstrating its difficulty with math as 10 minutes turns into 20. However, let's move on to the discussion of the math frameworks. I just want to make sure that the people understand the Board members have just received this document. I think our discussion today is going to be therefore somewhat brief. We will have, obviously, a much further discussion at the July meeting, but I want to turn it over to the Commissioner to introduce the committee.

**COMMISSIONER DRISCOLL:** Thank you, Mr. Chairman. And stepping forward for the 14th time, I think, to talk about the math framework, to my left is Tom Noonan, Sandra Stotsky, and our sabbatical teacher from North Reading, Bethe McBride, who has done an outstanding job. As a Board you left this subject I believe at the February 23rd meeting in which there was a great outcry from people who were concerned about the document at that time. I committed personally that I would get involved in this process, which I have, and I have literally met with teachers across the state and others, and there's been a great deal of discussion. My hope is that we are finally getting to the point where we have a document that is balanced and will be the right thing for all kids.

We saw this morning three people testify. In some ways what they said conflicted with one another. We talk about equity, so to some extent we talk about one set of standards for all. But we also recognize that we have a



phenomenal divide currently between the need to drive our students into proficient and advanced, and also at the same time trying to get kids up out of failing. So we talk about two different tests, but then we really talk about equity. That was one conflict. One professor said that he was very happy with the March 1 document, another professor said that he was opposed. So it is that kind of conflict that we've seen. I do want to say at the outset that one of the problems that always occurs with the development of a framework is that there comes a time when you have to finish and you have to get a document before people, and that's always a scramble. And as a result, we always need some time to do some editing. In particular, Professor Schmid is quite correct that while the previous draft was disseminated to various mathematicians throughout the country, I might add, this later draft has not gone through that process. That's not because we don't intend to, it was simply because people scrambled. If you saw what we lost on the computer and didn't lose on the computer, I'm looking at Hillel who was ready to jump out of the 5th floor window on a number of occasions when he lost things. It's been a very hectic week. But let me try to quickly summarize again what we are trying to accomplish based on what happened after the February 23rd meeting.

First of all, we did do what the Board suggested, which was to involve various specific groups, the student association, the ATMIM group, which also includes Math West and others. We met with the assessment development committee and went through that whole process. We did send it out to mathematicians and so forth. We continued to try to develop a balance, frankly, between the basic mathematics concepts and the skills necessary for kids to succeed. And it's that balance that we want to accomplish. We certainly don't want students who know a bunch of facts simply by rote and just giving them back to us. On the other hand, we don't want such a long process of understanding and going over things that we don't eventually get to a right answer. We value the fact that kids need to know certain processes. We need to only look at the results of mathematics in the United States nationwide, let alone here in Massachusetts, and a startling example is the recent case where they had Taiwanese kids take the Maryland test. We always have this problem in America of a very broad mathematics curriculum, and the worry about it being too broad and not deep enough. Other countries really have fewer standards and go in depth. And the Taiwanese did extremely well on the Maryland test which, of course, they hadn't ever seen, and here the Maryland kids, like the Massachusetts kids, are geared towards that test. So it is a complicated issue and one that surprisingly has caused all kinds of emotions throughout the state.

I have to tell you from my perspective in talking to teachers most say to me, "Look, we just want to know what you want to know. Just tell us the standards. Just be as specific as you can be and then get out of our way. We know our kids, we know how to get them there." Jim Hamos and Claire Graham, co-chairs of the Mathematics and Science Advisory Council, led a group of people from across the state who have done phenomenal work. They put in hours that are almost unimaginable. When NCTM 2000 came out -- and I might suggest we knew this from previous versions, that NCTM 2000 was going to mirror many of the things that we had initiated through the Massachusetts document. Shorter gradespans for example. So what this group did in its most recent work was to take the entire NCTM document, which came out in April, to take our framework and to line up every single standard with not only every broad concept which we've incorporated in our document anyway, but also the expectations that are listed in the appendix of the NCTM document. Just a tremendous amount of work. And it was very instructive in a number of ways. Now, there are things that we didn't have interest in including every single thing of NCTM. I mean, there are some places where we differ slightly from NCTM. But in any event, it's very helpful to those that study mathematics, at least, to look at it because it was very clearly laid out on one large chart. We took all of that material and everything else that we have been dealing with and incorporated it into the document that you have today.

The next step was to disseminate it to mathematicians, because I was concerned when Professor Schmid talked about losing some of the mathematical content. We want to be very careful about that. And I do believe that in discussions we can resolve that. The issue about what's in it and what should be there, is a constant battle. In addition to all of the other groups, a group of urban educators, from Boston and Brockton, came together at my request to give their input, which I think was very important. I also had a group of math coordinators from various schools throughout Massachusetts who came together and, of course, we are primarily interested in the high school, but we also looked across the board. I want to make sure that everybody understands that this has been a very open process.

While I might disagree with people and they might disagree with me, we have made every attempt to make this as open as possible. I have a stack four feet thick on my desk of materials and e-mails and letters. We have tried to be

thoughtful about every single response that we've received. And this document will be posted today, and we would expect -- because the mathematicians turn things around pretty quickly that we'll make editing changes and we'll have a document ready for the Board within two weeks. So you will have at least a couple of weeks before the July meeting to completely look at the document that we expect to be voted in July. It's very difficult, there are no easy answers in my judgment.

It's one thing to talk about what students should know and be able to do at various grade levels. We have agreed, and I think it's the right thing to do, to include separate course descriptions for a couple of reasons. One is that that's what happens. As a framework there's some rules we ought to go by. One of the rules we have to live by is this document ought to guide and be clear about what we expect but, on the other hand, give some freedom as to how people go about doing what they are doing. And that becomes very tricky. So we have people who say you shouldn't include individual course descriptions because that's going to drive people to Algebra I, Algebra II. But I'm not going to legislate morality. They say you shouldn't list all the standards in the back of the appendix because then they won't read the rest of the document. But I'm sorry. Hopefully mathematics teachers will read everything and they'll read not just the appendix that NCTM put out. So they evidently don't trust mathematics teachers to read the rest of the larger document. It is difficult.

You ask some mathematics people who have been around a long time and they say we should have trigonometry in the document. And we have other people who say that should be exploratory and be taught in the 11th grade. The same with quadratics. It gets into the distributive properties and what grades that should be. We moved Venn diagrams from the 2nd grade to the 11th grade. But it's very, very difficult to satisfy everybody. And I certainly don't intend to do that. What I intend to do is to recommend to this Board a framework that balances knowledge and skills, that does serve as a guiding document for mathematics education here in Massachusetts. It must be one that is rigorous enough for kids to be able to do well and compete and understand mathematics, but reasonable enough so that it's not such a high standard that it's unfair. And to some extent, our framework, like our graduation requirement has to change over time. Clearly, the major change here was that beginning in 1992, based on the 1989 NCTM standards, we developed an original framework in 1995 that was broad. But then along came our assessment program and with it people in the field saying, "You know what? Why don't you be more specific." So we developed, at the request of the field, a bridge document, an assessment expectation document, that was very well received, and I will argue with anybody that says something else. I think, this direction toward smaller gradespans and clarity in expectations is the right thing to do. I think this is the proper balance, notwithstanding the mathematicians that we need to talk to, and we need a couple of weeks, as I said, because we scrambled to get this to you. I'm very confident that within two weeks we will have an exceptionally good document to put before you in July. I think this one is almost there. So with that, Mr. Chairman, I will open it up for Board members.

**CHAIRMAN PEYSER:** Thank you, Mr. Commissioner. Let me be the first one to say thank you for all the personal time you spent on this. It wasn't on your game plan for how you were going to spend your time this year, but you spent a lot of time, certainly productively. And first let me jump out of order. Ed, I know you have time constraints. Is there anything you want to say before the panel specific to this document?

**DR. DELATTRE:** I hope you will get all the details from Professor Schmid to us. I think his words were that this version has lost mathematical integrity and I'd like the specifics of that and to know the remedies. I want to caution that on either, if there are mathematical integrity problems, or problems with real adequacy of guidance to teachers -- this is not about assessment but about mathematics instruction. This is a framework, this is not an assessment document, it's a curriculum and instruction document -- if either of those seems to me short, I'll have to vote no in July. I don't want to be in that position, and I have no patience with all this business about whether you must teach children standard algorithms and all that. That's not involved in my concern. A Mathematical integrity problem speaks for itself and I will rely on your informing us and so on. I want to read into the record a letter that was written to me after the last Board meeting. My staff and I continue to work with Professor Eaton Bolger, professor of mathematics and computer science at UMass/Boston; Philip Curtis, professor of mathematics emeritus at UCLA; Andrew Gleason, professor of mathematics emeritus at Harvard; and Samuel Vanderbilt, who is the leading mathematics teacher at Roxbury Latin. We corresponded, talked, visited, and so on, as we have over time on instruction in mathematics, and although they, the same as I, have not seen the document that came -- I didn't get this

until Saturday night, I haven't even opened it -- they wrote me a letter on the 25th of May that I'd like you to know about. Their letter, signed by the four of them, says:

*Dear Dean Delattre,*

*At your request, we've examined the March 1 draft of the Mathematics Curriculum Framework (and the reformatted version of March 23) and we have concluded that the draft is fundamentally flawed and cannot be fixed by the simple revision process that seems to be in place now. The new draft Framework does not provide teachers or the public with a clear picture of the meaning of mathematical literacy in today's society, nor does it provide guidance to teachers about how to design curricula that will contribute to successful instruction. The guidance is as important as the goals. In the old Framework, some guidance was offered in the form of vignettes and Examples of Student Learning, but these have been stripped from the revised version. Without such suggestions, instructions in many classrooms will surely focus entirely on the minimal curriculum and Standards themselves. On page 1 (March 1 draft) we read, '...the standards are written to allow time for study of additional challenging material at every grade level...'. This is admirable intent, but nothing in the text that follows suggests what this additional material might be or what would constitute an appropriate balance between time spent on extra topics and time spent on the Standards. The Guiding Philosophy (page 3) emphasizes the importance of connections within mathematics, but, aside from the brief discussions in the Strand overviews, the document pays them little attention. For example, the relationship between the geometric concept of similarity and the numerical concept of proportionality is one of the grand themes of mathematics, but that deep structure cannot be inferred from a mere listing of topics to be covered. Here, and in less important cases, teachers need explicit guidance. Many of the Standards and Exploratory Concepts appear to have been added haphazardly. For example: "Patterns, Functions, and Algebra. Standards 4 for Grades 1-2, Standards 3 for Grades 3-4, and Standard 5 for Grades 5-6 specify very little progress for your years of study. Number Sense, grades 5-6, Standard 1, introduces positive exponents; by implication, negative exponents will be studied later. Yet Standard 2 concerns the extension of the decimal numeration system to thousandths and millionths, which involves negative exponents. The first five Learning Standards for Data Analysis in grades 11-12 are copied verbatim as Exploratory Concepts for the same grades. This is clearly a mistake, since Exploratory Concepts are supposed to precede Standards and then become Standards at a higher grade level. Especially in the early grades, it is important that curriculum be aligned with children's cognitive development. The technical errors referred to above suggest that insufficient attention was paid to this issue when new material was added to this draft of the Framework. The legislation establishing the Frameworks wisely calls for periodic review, and there is no doubt that the original Framework needs revision. We are pleased to have the opportunity to help with this project which is so important for the young people of the Commonwealth.*

*Sincerely yours,*

Now, I understand that reasonable people of goodwill can disagree about the extent to which guidance has to be provided. I understand perfectly well that some teachers will welcome it, some won't need it. But it seems to me that the concerns about mathematical integrity and the concerns about guidance have to be satisfied in a truly adequate framework. I have no brief for whether triangle trigonometry or analytical trigonometry or Algebra II ought to be offered at specific schools or specific grade levels. I do take it that the materials Sam VandeVelde has sent to the Department on how those things might be included in the framework are illustrative of the way one goes about providing guidance in the light of standards, and I know those materials were all forwarded to you. He seems to be a completely lucid man and teacher whose work strikes me as really quite extraordinary. So I'm grateful that the draft will be in our hands in two weeks. I know you will follow through with Schmid and with other mathematicians. I urge you to be in touch with these people, you have their materials, too, which I sent around in February. So I'm sorry I have to rush, but thanks for letting me make these comments.

**DR. THERNSTROM:** Is it possible, Ed, for the rest of the Board to have a copy of the letter you have?

**DR. DELATTRE:** I will get a copy to Dave and he'll fax it to all of you. I have my notes on this one, but I will send a clean copy to your office. Thanks very much.

**DR. THERNSTROM:** . I'm extremely concerned, as Ed is, about the issues raised by Professor Schmid this morning and about the fact that we have yet to hear from mathematicians on this draft. By the time we have another chance to discuss this, it will be time to vote on this document, and so it seems to me, and I obviously don't want to delay further signing off on these frameworks, but I wonder if it wouldn't make sense while we have those who testified this morning here to have a chance to further question them.

**CHAIRMAN PEYSER:** I think this is the inappropriate time simply because Board members haven't had time to digest what the document is. Now, having said that, perhaps we can provide other venues or times for having this kind of discussion. The only thing I'd caution against is any expectation that there's some magical consensus out there that we're going to find by further discussion. There is no consensus, there are choices that have to be made and we, for good or for ill, are in the position of having to make them. I think this is one of those issues where we can talk it to death, and I would encourage us not to do that. Which is not to say we're going to close off conversation, but I do think we need to make sure that we are having conversation to inform ourselves rather than believing that there is some solution out there that we just haven't discovered yet. I think we are talking about making choices and tradeoffs and none of them are entirely optimal, but we just have to do the best we can.

**DR. THERNSTROM:** I'm not sure why consensus is our goal. Our goal is to get a good mathematical framework, whether or not we have consensus.

**DR. SCHAEFER:** Jim said there is no consensus.

**DR. THERNSTROM:** There won't be, but it's not our goal.

**COMMISSIONER DRISCOLL:** My only comment is that Board members have to find their comfort level. You've had four versions of the framework to one extent or another, and if there are people and views that you are particularly concerned about, then I think you should avail yourself of those people. This is the first I've heard of that letter, all I ask is that you get me your best thinking from anybody, and then we'll respond.

Now, if person A gives us a list of ten things and we include nine, they sometimes think we've ignored their input. But if somebody gets us information and we make some changes and not others, and those others are deal breakers to that person, they should keep coming at us. I think to some extent we have eliminated a lot of the mutually exclusive issues. There are some things that are non-negotiable and we have made that very clear as a Department, and generally speaking the Board approves of all of those, based on our previous discussions. But the only thing I can add at this point is that I am most willing to take as much input as we can and give reasons why we did or did not include something. So I would urge Board members to share their views or those of the people you trust. If it's a matter of saying that until so and so is satisfied we're going to be concerned, then that's my job to work with them. That's the best I can do, Mr. Chairman. I'm willing to do whatever it takes to get this thing to a point where there is consensus on the Board. That is my main concern.

**DR. SCHAEFER:** Could we get a quick summary from the Department about the changes that were made between the March 1st one and this one?

**MS. CRUTCHFIELD:** That would be helpful.

**COMMISSIONER DRISCOLL:** Maybe Bethe can take a whack at it, short of getting into some details you don't need. I think you're more concerned about the larger issues. The NCTM document came out so we took the broad concepts which we had really incorporated anyway and we made a format change in this one where previously we had listed the broad concepts, page after page, as NCTM does. We've listed, as you will see on the very first page, the broad concepts. If you turn to page 18, you will see that we took the broad concepts of NCTM and labeled them A, B and C. Those are the three standards at the top of the page. And then, again, this is as a result of the work that the group did, we then took the standards that we had and organized them in accordance with that broad concept. So the five standards you see are related to understanding numbers and so forth. So we have reorganized the document in terms of the broad concepts. There were some gaps, so we added some things. We eliminated some things and then, more importantly, removed things from the regular standards to exploratory. In other words, moving it out of a

grade to the next grade. So developmentally we made some changes. I think that's essentially what we have done. I don't know what the specific changes were we made beyond that, if there were any dramatic changes.

**MS. McBRIDE:** The Commissioner's summary is very good. Additionally, a significant change would be in the amount of exploration and classroom activities that have been incorporated into this draft. I think that addresses, to some extent, the issues raised by the Gleason, et al. letter to Dr. Delattre. Regarding the equity issue, I think this document displays that rather than having a course that's separate for different types of students, the curriculum can be covered in different ways, and it shows that there's more than one way to cover the same content.

**DR. SCHAEFER:** Can I interrupt for a second? Could you explain that, what you just said?

**DR. THERNSTROM:** Are you referring to a single-course approach versus an integrated course? What are you referring to?

**MS. McBRIDE:** It was suggested earlier that having single-year courses at the secondary level raised issues of equity, of having a different course of study for certain students, and I don't think that's the intent of this framework. I think the intent of the framework is to show that there is more than one way to cover the same content. You can take a traditional approach and still cover the same content as in an integrated approach to topics in mathematics.

**DR. SCHAEFER:** Did we eliminate the separate courses?

**MS. McBRIDE:** No.

**COMMISSIONER DRISCOLL:** No, we incorporated both. That's her point. An issue that needed to be addressed was that there were differences, seeming differences in content between the single-course studies and the integrated course, which would suggest that if you followed one path or the other, you were putting students at a disadvantage. I think the point is that we are showing that while there are these differences, the content to be covered is the same, not putting any students at a disadvantage and therefore providing the equity.

**MS. STOTSKY:** The standards for the Algebra I course are intended to show how one would address Algebra I with the depth that an Algebra I course should be addressed, but by making it available at grade 8. It is different in its depth of content, compared what is in the 7-8 integrated or multi-strand approach, because what is in the 9-10 multi-strand or integrated standards is captured to some extent but not fully by what is in Algebra I. If taken by students in grade 8, this means that they would be addressing much higher level content at an earlier age.

The equity issue is, as many of us believe, very much addressed by having different offerings, because many schools do offer Algebra I in grade 8, and the U.S. Department of Education wants to stimulate more students to take Algebra I in grade 8, and what this document is trying to capture is the U.S. Department of Ed.'s effort to have more and more students take Algebra I in grade 8 because it is seen as the gateway to higher mathematics courses beyond calculus in grade 12 onto the college level. So the effort has been how to make sure that it is there, but to make sure in some way that it's available to all students, which is what would satisfy the equity issue.

**CHAIRMAN PEYSER:** Let me add just one more comment on that, reflecting my own view, which I think this document is consistent with. First of all, the point that Sandra just made, which is that having different models or different structures by which to deliver the curriculum, implies that some material may be delivered earlier rather than later, depending on which structure, which method you choose. The other thing is that in addition to simply the timing of delivering the material, there are some students certainly who are going to go on into calculus in high school who are going to be receiving instruction at a higher level and with more material. We need not to discourage it, but rather to encourage it and enable it, and I think this document does that. I believe also, as much as equity is frequently conceived of as having mostly to do with students that are starting at a lower level, there's an equity issue that might be for students starting at a higher capacity, and I think we need to be cognizant of both of those issues. And I think this document in both structure and design does that.

**COMMISSIONER DRISCOLL:** I do want to point out, as Dr. Delattre brought up, that clearly we want mathematical integrity. That's clear. So I'm very anxious to go over those aspects of the framework. But again, even taking the broad concepts of NCTM and then organizing the standards in that way can lead others to say, "We would have organized the standards differently." It really comes back to the issue that I've talked about, which is trust. You produce a document that does provide the guidance needed, and while I agree that it's a curriculum and instruction document, I don't see how we avoid the issue that it also leads to preparation for assessment. I think it sounds right, but the fact of the matter is we need to have a framework that is consistent with our assessment program. If we developed a document that was emphasizing geometry, then in fact by definition it would change our assessment program because our assessment program, which now has a proportionality between geometry and algebra patterns and algebra number sense, would change. So I think there are a lot of variables that we are trying to bring together and if we disrupted mathematical integrity by clearly making this connection to the NCTM document, then that's something we have to look at. That is the most important thing, in my judgment, to look at in the next couple of weeks.

**DR. THERNSTROM:** Let me ask the panel, just push them a little on this question of the differences between this and the earlier document, the changes. What are the changes that have been made that would raise questions about mathematical integrity in the mind of a professional mathematician?

**COMMISSIONER DRISCOLL:** Bethe, you had a slight discussion. Abby, I think in fairness, we need to sit down and go over that. People have asked for us to get it back to you. Specifically, one member has asked for a specific report on that. So that's what I intend to do. I think that's fairer, unless one pops to your mind.

**MS. McBRIDE:** I believe one of the integrity issues that was raised by Dr. Schmid had to do with the introduction and the development of the concepts related to negative integers. He felt, in an earlier version, that they were introduced in the 5th and 6th grade and they were beginning to add and subtract them, while the revision still introduces the idea of negative integers at 5th, 6th grade. The adding/subtracting, the operations with them has been moved up to the 7th and 8th grade level. That would be a typical integrity issue he raised. That whole development of that concept has changed.

**DR. THERNSTROM:** I can't believe it's a timing issue.

**COMMISSIONER DRISCOLL:** We'll go over that. I think in fairness we need to sit down and go over page by page, standard by standard, and we'll get that as part of my final report.

#### **WORKING DRAFT OF REVISED CURRICULUM IN SCIENCE AND TECHNOLOGY/ENGINEERING - Discussion**

**CHAIRMAN PEYSER:** Well, I thank the panel very much. I do want to move on to the science and technology/engineering framework which is coming before us in a working draft form which we are being asked to consider to send out for public comments. So if there are other panelists --

**COMMISSIONER DRISCOLL:** Let me introduce to my left Susan Cote, who is a sabbatical teacher in science, and Tom and Sandra of course, and then our sabbatical teacher in technology, Yvonne Driver. They are just as busy as Bethe. What Sandra Stotsky and I had originally talked about was developing a concept paper, getting back to that step we used in certification. Susan and Yvonne have had numerous discussions and have been able to get input from teachers from across the state and across the grade levels, both in science and technology. We, in fact, have a document that I thought was better referred to as a working draft, although that's all it is. And we are not intending to bring to the Board a final science and technology/engineering framework until November. We would like to have the public comment period open through October 6. We're going to meet with specific groups over the summer, and also this will give teachers and others working in schools the opportunity not only now, but as the school year begins. So that's our process. I think this is a good start, although we are looking forward to the input this summer and early fall.

**MS. STOTSKY:** I just wanted to say that this draft represents a response to the volume of public comment that we received on the August draft, especially from high school science teachers. As a result, we put into place a very open revision process that involved large numbers of science teachers to prepare this working draft. And I do want to emphasize, as the Commissioner just has, that this is a working draft because we plan now to obtain reviews by scientists and by engineers on the technology/engineering standards for high school. I have some preliminary copies of the public comment form that is going to be critically important. I can give these to the Board now, although we need to finish copy editing both the draft and the comment form for consistency. The major feature of this document and the most innovative feature of it I believe is we plan to have teachers at the high school level, teachers of chemistry, physics, biology and earth science, as well as teachers of grade 9 and 10 technology/engineering courses tell us from the comprehensive lists of standards that are now in this document which ones they think are core standards that would be used for the MCAS.

In other words, what we had these teachers do, which they were delighted to be able to do, is set forth a complete set of standards for these introductory courses and then, from this complete set of standards. We are asking those people who teach chemistry, et cetera, in the field to tell us what they think are the core standards that should be tested of all students who would then take those courses. So it is from their judgment in the field that we are hoping to get our pretty much final decisions on what constitutes a core knowledge so that, in the final document, the complete set of standards would be available so that anyone, School Committee members, parents, so anyone will know what a full set of standards for a full year will look like regardless of what gets tested on MCAS. This may be the beginning of the solution as to what many of us see at the high school level in how we differentiate between what is a complete set of standards and how we test an MCAS graduation requirement. That becomes, I hope, a solution we might try to think about for the math courses at the high school level, as well as history and other areas. So those are the major features and I would like to give a few minutes to both Susan Cote and Yvonne Driver to just comment on what they think. Their work was extremely valuable and without it we would not have been able to get this draft to you today.

Susan is now Statewide Science Coordinator at the Massachusetts Department of Education and she has been a science teacher in grades 6-9 and spent six of those years also as a grade 6-12 science coordinator, and indeed spent the last two years as an elementary principal as well as director of elementary curriculum in Swansea. She's also been a PALMS teacher leader and coordinator in the southeast and is in a doctoral program in curriculum instruction at Boston College. Yvonne Driver is presently Statewide Technology Engineering Coordinator at the Massachusetts Department of Education. Prior to this she was 6-12 coordinator of technology education in Framingham schools. She has taught technology education in both middle and high school for over a decade and she holds a bachelor of science in industrial arts and technology, and a master of science in technology education, both from the State University of New York at Oswego. She too is completing doctoral studies at the University of Massachusetts Boston. Why don't we have Sue say a few words and then Yvonne say a few words on the processes that they have been overseeing?

**MS. COTE:** Thank you. Good morning. I started here at the Department of Education just after we closed out the public comment period on the draft that went out last summer. My job really began by looking at the public comment and making decisions according to the public comment as to what directions we were going to go in science. The public comment overwhelmingly at the high school level was telling us that teachers were looking for a set of standards for full-year, full-course subjects in science to inform the needs at the high school. They felt they wanted the assessment to go in that same direction. The comments from the elementary teachers were overwhelmingly looking for the science standards and draft to be made more specific, more clear. They felt it was difficult to take the standards that were in the draft and actually align them in the classroom, because they were not clear enough to actually give them enough guidance as to where they were going to go.

Since the Commissioner put out a call for teachers to work with us in March, we've had over 60 teachers, a very broad range of teachers, I might say, too, from different areas of the state, from urban communities to our smaller rural communities working in those two directions: at the elementary level making the standards more clear and accessible, and at the high school level designing standards for full-year courses. And I have to support Dr. Stotsky when she says the teachers at the high school were thrilled when they were brought together and told that we were moving in this direction. They felt it was a step in the right direction. And they have been very supportive of this change since the draft, and I think the public input that we get will prove to support that.

**MS. STOTSKY:** Yvonne, why don't you tell us what is going on in your area, which has been very different?

**MS. DRIVER:** Very different from Sue. Thank you very much. I have worked on this process since the August 1999 draft. I was part of the revision panel that worked on that first draft, August 99. One of the criticisms of that draft was the term "technology and engineering". There is confusion in the field between instructional technology and technology education, which, in a nutshell, is in the hands-on, minds-on application of math and science principles.

Similar to Sue, having the teacher input has been vital and very crucial to this process. And I think one of the highlights for technology and engineering concepts was elementary school. We all know elementary school teachers are responsible for all of these frameworks, and in order to make this process a little easier for them, looking at this document, you will see that not only do the technology activities connect to the science learning standards, it also shows the teacher where it's coded to the technology/engineering standard. So when they are teaching science, and showing them how to extend that learning to technology and engineering, that is another added piece of the document that is very good. It also has been reviewed by elementary classroom teachers who felt very positive and very confident about that K-5 segment of the technology standard. Middle and high school, from the previous draft of 1995, in technology education, here was a wide variety of subject areas that teachers had to be responsible for at all grade levels. This revised document synthesizes smaller portions for grades 6-8, with certain portions being responsible in the high school grades, making it a lot easier for teachers of technology to take certain domains and concepts, to cover them in the classroom curriculum. They also go much deeper than they were able to in the previous document. The high school. We met last week with a group of not only high school teachers, but engineers. I have to say that the Dean of Engineering at Tufts University has been very instrumental in this process in working very closely with us, and some of the work that was done to get engineering K-12 to some independent review by engineers, which it still needs more. In my professional opinion, the teachers were happy with the concepts. I still think there needs to be some greater balance, so we are meeting again on Thursday, particularly the high school folks, just to finish, fine-tweak some of the standards in the high school. But overall, this has been a very good process that has had a lot of feedback from across the state. And I also want to say, one of the groups that has not been a part of the process prior to this is vocational educators. And part of the teacher review process has also included them looking at standards for technology and engineering because, of course, in the vocational schools they do focus on a lot of very similar type of instruction. So we are moving forward.

**On a motion duly made and seconded, it was:**

**VOTED:**           **that the Board of Education, in accordance with Chapter 69, Section 1E of the General Laws, authorize the Commissioner to solicit public comment on the working draft of the revised Curriculum Framework in Science and Technology/Engineering.**

The motion was made by Ms. Crutchfield and seconded by Dr. Schaefer. The vote was unanimous.

**CHAIRMAN PEYSER:** I do note we have a quorum of five members here, so it is an official vote. I also want to make special note, since we have just gone through two frameworks, to thank the Deputy Commissioner for all the work she's been doing with her time, double time, triple time here, because there's several balls being juggled in the air at the same time. Not only the math and science framework, but the English framework, which we just completed, and the history framework revision which, as the Commissioner just referenced, is underway.

**SCHOOL BUILDING ASSISTANCE: ADOPTION OF AMENDMENTS TO REGULATIONS (603 CMR 38.00) APPROVAL OF WAIVERS AND UPDATE ON LEGISLATION - Vote**

**CHAIRMAN PEYSER:** There are two components to this. One is the adoption of the amendments to the regulations we have had before us, which we sent out for public comment. It's now back for final approval. There is also the approval of waivers around allowing the costs and reimbursements. So, Commissioner, let me hand it over to you.



**COMMISSIONER DRISCOLL:** Let me introduce, to my left, Christine Lynch, who is heading up the office of school building assistance; Jeff Wulfson, who you know is our chief financial officer; and Jay Sullivan, from our finance office as well. We are watching very carefully because the legislature is dealing with a number of major items, one of which is special education, as outside sections of the budget. Another is school building assistance. We are waiting patiently to see how others are resolved as well. So it may be that we have gone forward with our own regulations as the finance committee, and they are before us. Jeff, let me turn it over to you for last-minute changes. And we also have some waivers that we want the Board to do as well.

**MR. WULFSON:** The reason we are moving forward with the regulatory changes at this point is to give districts as much advanced notice for those planning to submit applications in fiscal year 2001. We understand that if the legislation goes through there may be some inconsistencies that we'll have to deal with at the July meeting. But at this point we really don't know what the final form of the legislation will be because the House and Senate versions differ significantly. So this at least provides a starting point.

You have in your Board packet the penultimate recommendations. We originally issued these for comment in January and received a lot of comments at the May meeting. We discussed a number of changes based on those comments. We have since had a subsequent meeting of the Board finance committee, and the copy that's in the Board packet reflects a few additional tweaks and clarifications. Probably the most significant of it is really just a clarification on the 90 percent reimbursement for racial desegregation projects. This is again, assuming this stays in the law, clarifying that the Board is the governing body for the approval of the 90 percent. That is not delegated to the Department.

We have one final change that is on the blue page that's not reflected in the Board packet. It's a rewrite of paragraph 7 dealing with the consultation process with other state agencies to ensure that all viewpoints and all issues are adequately aired. What this change does is give us some additional flexibility to conduct those consultations on whatever means is most appropriate. It may be individual conversations, sequential conversations, group meetings, e-mail, or on-site meetings rather than being locked into one format. Other than that, I'd be happy to answer any questions on any other changes.

**CHAIRMAN PEYSER:** Let me follow up on a couple of things. One is procedurally. I know the budget and finance committee reviewed these regulations earlier this month, and some of the changes reflect that input. But overall, the committee was strongly supportive of the regulatory changes before you. There is another thing that is not explicitly part of this proposal and which is going to be subject to future review. We need to look at the design regulations that govern the construction of school buildings in the Commonwealth. To the extent those regulations exist, we will consider that they be changed, revised, streamlined, and made more flexible to make the construction of public schools in the state more economical. Among other things, this would allow what dollars we do have for school building construction to go much further. I would also just note a couple of things in the regulations that are quite important. There are actually many of them but I will just make a few:

(1) Allowing the use of modular construction as a reimbursible expense only makes sense to alleviate a temporary enrollment blip or increase. (2) Establishing an inter-racial advisory committee clarifying that the Board must still approve individual projects for extra reimbursement under the Racial Imbalance Act law. Again, that may be subject to some legislative change, but this has been our practice in the last year, and it's important to codify it through regulation. (3) Allowing the Commissioner to require the use of a construction manager to ensure that costs are kept under control. (4) Require applicants to consider non-construction alternatives when it is appropriate, even in cases where they may not be reimbursible by the state. And (5) to establish separate cost limitations for furnishings and equipment. These are all very significant changes that we are making in the context of the existing law. There's more, certainly, that can be done and will be done if the law itself is changed, but I think it is an important step forward irrespective of what goes on in the legislature in the next several weeks and months. Any other comments? Questions on the part of Board members?

**On a motion duly made and seconded, it was:**

**VOTED:** that the Board of Education , under the authority of G.L. Chapter 69, Section 1B and pursuant to Section 11 (b) and © of Chapter 645 of the Acts of 1948, as amended, and having solicited and reviewed public comment in accordance with said Chapter 645 and General Laws Chapter 30A, the Administrative Procedure Act, hereby adopt the amendments to the School Building Assistance Regulations and program cost standards, 603 CMR 38.00, as presented by the Commissioner.

The motion was made by Dr. Schaefer and seconded by Ms. Crutchfield. The vote was unanimous.

**CHAIRMAN PEYSER:** Now having moved the question, I probably ought to clarify. I think the question had to do specifically with the regulations. There's a separate motion that we ought to consider which has to do with the waivers, waiving the cost standards on -- how many projects are there? Nine? Nine projects that are on the last yellow sheet.

**MR. WULFSON:** I should point out that, normally, we wouldn't be coming forward to you at this meeting for approval of all projects that came in this year. This year we had a bumper crop, 94 applications made it all the way through, in part because of the nervousness and anxiety over the potential future changes of the program. Combined with the fact that this June meeting is a week earlier than normal, our staff wanted to make sure we gave projects enough adequate review, so we are going to come to you at the July meeting with the actual project approvals.

In the case of the waivers, every year, as you know, there's always a handful of projects that are asking for waivers of the cost standards. The recommendations here reflect the practice of recent years. We have been willing to consider waivers for situations where there are truly some unique site constraints or difficulties. The general, "Gee, this building is turning out to be more expensive than we thought, we'd like more money," has not been recommended and approved by the Board in recent years. The only exception to that, as you'll note, is for the Edgartown project where there's been a longstanding practice, because of the additional cost of construction on an island, to provide a premium for them. But other than that, the recommended waivers are all for specific site situations that go beyond what our normal site allowance would be.

**COMMISSIONER DRISCOLL:** If I can just add, I think we are seeing more and more of this simply because there are just not easy sites available. So the sites that are being used ultimately have ledge in some of these cases and in other cases have water table issues, so forth. As you know, we are running into real problems almost everywhere. I think that's why so many playgrounds have been taken. That's another issue that needs to be addressed. So this really is something the staff needs to scrutinize carefully, and it's just one of those things. They are unanticipated and they are a real part of doing business these days.

**MR. WULFSON:** Keep in mind, this is a relatively small number of projects as compared to the total number we have seen this year.

**MR. LaFLAMME:** I was going to double-check. So these waivers here represent all of the waivers coming before the Board this year or just the ones up to this point?

**MR. WULFSON:** There will be no more this year. I believe we had a couple earlier in the year.

**MR. LaFLAMME:** But at the July meeting, those will be the other projects, not these waivers.

**MR. WULFSON:** The July meeting will be the projects.

**COMMISSIONER DRISCOLL:** And we have capped them, as can you see, not to exceed.

**MR. WULFSON:** It just allows the ultimate cost to go above the formulaic amount we normally determine.

**On a motion duly made and seconded, it was:**

**VOTED:** that the Board of Education, accordance with 603 CMR 38.13 and on recommendation of the Commissioner, hereby waive the cost standards of 603 CMR 38.06 for the following projects:

East Brookfield - new elementary school: additional allowable costs not to exceed \$305,000 for water service line.

Melrose - Roosevelt School: additional allowable costs not exceed \$800,000 for site work.

Medford - Columbus School: additional allowable costs not to exceed \$869,125 for site work.

Medford - Brooks Hobbs School: additional allowable costs not to exceed \$1,642,690 for site work.

Medford - Roberts School: additional allowable costs not to exceed \$1,401, 263 for site work.

Boston - Orchard School: additional allowable costs not to exceed 4852,038 for site work

Boston - Brunswick School: additional allowable costs not to exceed \$1,888,570 for site work.

Boston -Mildred School: additional allowable costs not to exceed \$6,675,338 for site work.

Edgartown - elementary school: additional allowable costs not to exceed a 20 percent increase over the costs per square set as specified in 603 CMR 38.06 (1).

Provided, however, that said waivers shall be subject to such terms and conditions as may be imposed by the Commissioner.

The motion was made by Dr. Gill and seconded by Ms. Crutchfield. The vote was unanimous.

#### **APPROVAL OF NON-OPERATING SCHOOL DISTRICTS - Vote**

**CHAIRMAN PEYSER:** The remaining two items on the agenda involve the approval of the non-operating school districts which are essentially too small to have their own high schools, so tuition out for other school districts. Following that, we have the approval of grants. Let's take the non-operating school districts first.

**On a motion duly made and seconded, it was:**

**VOTED:** that the following public school districts, in accordance with provisions of Chapter 71, sections 1, 4, and 6, be permitted not to maintain certain public schools for the school year 2000-2001 and to tuition their students to other school districts for said year.

<u>SCHOOL DISTRICT</u>	<u>GRADES</u>
Acushnet	9-12
Berkley	9-12
Clarksburg	9-12
Erving	7-12
Farmington River Regional (Otis/Sandfield)	7-12
Florida	9-12
Gosnold	K-12
Granville	9-12
Hancock	K-12
Lanesboro	9-12
Monroe	K-12
Mount Washington	K-12
Nahant	7-12
New Ashford	K-12
Richmond	9-12
Rowe	7-12
Savoy	6-12
Shirley	9-12
Truro	7-12
Tyringham	K-12

The motion was made by Mr. LaFlamme and seconded by Ms. Crutchfield. The vote was unanimous.

#### **APPROVAL OF GRANTS - Vote**

**On a motion duly made and seconded, it was:**

**VOTED:**           **that the Board of Education approve the Early Literacy grants as presented by the Commissioner, subject to appropriation of funding in the FY2001 state budget**

The motion was made by Mr. LaFlamme and seconded by Ms. Crutchfield. The vote was unanimous.

#### **AUTHORIZATION TO COMMISSIONER - Vote**

**CHAIRMAN PEYSER:** There is a motion here to provide the Commissioner with authority to approve grants through September 26. Let me ask you a question about that. We do have a meeting in July. Is this necessary today?

**COMMISSIONER DRISCOLL:** That can wait until July.

**MS. CRUTCHFIELD:** So we are waiting until July.

**DR. SCHAEFER:** Before you end the meeting, the last thing in your packet is this article that was in the New York Times about magnet schools for the gifted. The issue of high-achieving students was raised several times in the course of the meeting today, and so this is a nice segue into this. Chicago has established several magnet schools for the gifted. Part of it is to maintain that group of students in the cities and not lose them to the suburbs. I really think that we are not doing enough for the gifted in this state and we need to look at that more carefully. This is one possible model. I think there are still some Horace Mann charters that have not been filled, and perhaps we should be encouraging districts to look at this kind of model, specifically.

**COMMISSIONER DRISCOLL:** From a practical point of view, Roberta, I would raise this during the budget debate big time. I think that's a place for us to have a full discussion as a Board on a number of areas. But also, I

think if you look across the state, our answer is: Incorporated in Chapter 70 are, presumably, funds to take care of kids. But, as you know, a number of other states specifically fund programs and it becomes a great impetus and so forth. I'd join you in trying to make that one of our priorities this year, at least to start, to get us going. The amount of money we have, is \$500,000 or something. It doesn't go very far. We have Odyssey of the Mind programs and that's about it.

**DR. SCHAEFER:** Our concern for equity should encompass these students, as well.

**CHAIRMAN PEYSER:** With that, if there's no further business, we are adjourned.

The meeting adjourned at 12:00 p.m.