Voices of Maine's High School Math Teachers

on the

Math Learning Results &
State and Local Assessments

Results and Collected Comments for the State Legislature and School Boards of Maine

Anonymous comment:

"Mr. Perkins, what an optimist you are!
You assume that someone really wonders
what the math educators have to say!"

Contents

Summary of the yes-or-no responses

Over one-third of all of Maine's high school math teachers have responded to a questionnaire that asked for their thoughts on the Maine Learning Results for 9th through 12th grade mathematics.

(The actual data and the teachers' individual comments on each question are attached.)

Questions on the Secondary Math Learning Results (Questions 1 to 5)

- Two-thirds of the teachers chose "No" when asked: "Do the Math Learning Results accurately reflect what a strong secondary math education should include?" (Question 3)

- Combining responses to three questions, (Questions 4c, 4d & 4e) just over one-third of the math teachers said that meeting the Math Learning Results would form an adequate basis for a student intending to enter a four year college.

- Ninety-three percent responded "No" when asked: "Are the 9th to 12th grade Learning Results a realistic expectation for all your high school students?" (Question 2a)

- Over half the teachers responded "Yes" to the question: "Are the 9th to 12th grade Math Learning Results an adequate standard for the top 25% of your high school's students." (Question 2b)

- However only one-fifth of the teachers answered "Yes" to the question: "Do the Math Learning Results accurately reflect what a strong secondary math education should include?" (Question 3) The perception that a standard is adequate may not indicate confidence that a program is strong.

- The teachers were equally divided in response to the question: "Are the 9th to 12th grade Math Learning Results an appropriate standard for the middle 50% of your high school's math students?" (Question 2c)

- Nearly 90% of the teachers said "No" when asked: "Are the 9th to 12th grade Math Learning Results an attainable standard for the lower 25% of your high school's math students?"

- Nearly 60% answered "No" to the question: "Do you think that simply revising the Learning Results Performance Indicators would result in a common math curriculum that would be adequate, appropriate and attainable for all of Maine's students?" This question refers to a review of the Maine Learning Results which is scheduled to begin this summer and will include the mathematics content area.

The math teachers also responded to questions on two assessment components of the Learning Results initiative: the state-run Maine Education Assessment test [the MEA] and the Local Assessment System [LAS] that are intended to guarantee that each school holds each student accountable for each Performance Indicator.

Questions on the Maine Education Assessment Test for Juniors (Questions 6a and 6b)

The MEA is a test that has been given to all of Maine's fourth, eighth and eleventh grade students for years. It is the principal state assessment of the Maine Learning Results initiative. Under the mandate of the federal act known as No Child Left Behind, Maine has decided to implement a similarly complex test for every grade level. The MEA has not been open to consideration by Maine teachers nor made available for public review, and it has been criticized anecdotally year after year. It is a test that has little meaning for the students that take it: neither a successful score nor a zero on the test has a consequence for the individual.

- Over two-thirds of Maine's math teachers said "No" when asked: "Is the MEA an appropriate tool for assessing the mathematics education of your high school's students?"

- Over three-quarters responded "No" when asked: "Is the MEA an accurate tool for assessing the mathematics education of your high school's students?"

Questions on the Local Assessment Systems (Questions 7 and 8)

The Local Assessment Systems are state-mandated components of the Learning Results initiative. Teachers in each district collectively design and score some form of local assessment to determine whether each student has met a particular component of each of the Learning Results in each discipline. Since each student must demonstrate some level of mastery of all of the Learning Results in order to graduate, the amount of time for the creation, scoring, reteaching, retesting, rescoring and record keeping associated with the Local Assessment Systems has been significant. There has been great doubt that a clear interpretation of the Local Assessment System record for an individual student would be possible.

- Fewer than ten percent of Maine's math teachers said "Yes" and sixty-five percent said "No" when asked: "Has the development of your school's Local Assessment System improved student learning in your school?" Several commented that the initiative was too new to respond.

- Only six percent said "Yes" and over eighty percent said "No" when asked: "Do you have confidence that the various Local Assessment Systems from all over Maine will be able to provide consistent, useful and accurate information on the status of Maine's students?"

Actual Responses of Maine Math Teachers (238 out of 675) to Questionnaire on the Maine Learning Results

The preliminary multiple choice results from the questionnaire sent to all* of Maine's secondary math teachers (n = 675). The number of responses to date (3/12/05) is 238, a 35.3% rate.

1) Do you think any one set of standards could be appropriate as the basis for the math education of all of Maine's High School students?

Yes 23.4% Unsure 15.2% No 61.5%

2a) Are the 9th to 12th grade Math Learning Results a realistic expectation for all of your high school's students?

Yes 2.6% Unsure 3.8% No 93.6%

2b) Are the 9th to 12th grade Math Learning Results an adequate standard for the top 25% of your high school's math students?

Yes 54.3% Unsure 8.5% No 37.2%

2c) Are the 9th to 12th grade Math Learning Results an appropriate standard for the middle 50% of your high school's math students?

Yes 37.2% Unsure 24.8% No 38.0%

2d) Are the 9th to 12th grade Math Learning Results an attainable standard for the lower 25% of your high school's math students?

Yes 5.1% Unsure 6.4% No 88.5%

3) Do the Math Learning Results accurately reflect what a strong secondary mathematics education should include?

Yes 18.7% Unsure 14.5% No 66.8%

4) In particular, would meeting the Secondary Math Learning Results form an adequate basis for a student intending to enter ...

a) a technical trade directly from high school?

Yes 37.8% Unsure 16.4% No 45.8%

b) a business, science or technical program in one of Maine's Community Colleges?

Yes 42.0% Unsure 20.2% No 37.8%

4) In particular, would meeting the Secondary Math Learning Results form an adequate basis for a student intending to enter ...

c) a business, science or technical program in one of Maine's State Universities?

Yes 35.3% Unsure 21.4% No 43.3%

d) a business, science or technical program in a four year college outside of Maine?

Yes 33.8% Unsure 22.8% No 43.5%

e) a strong liberal arts college?

Yes 34.5% Unsure 24.4% No 41.2%

5) Do you think that simply revising the Learning Results Performance Indicators would result in a common math curriculum that would be adequate, appropriate and attainable for all of Maine's students?

Yes 15.2% Unsure 26.0% No 58.9%

On the MEA

6) Is the MEA [Maine Education Assessment Test], which is given to all Maine 11th graders,

a) an appropriate tool for assessing the mathematics education of your high school's students?

Yes 14.7% Unsure 16.0% No 69.3%

b) an accurate tool for assessing the mathematics education of your high school's students?

Yes 9.2% Unsure 15.1% No 75.6%

On the Local Assessment System

7) Has the development of your school's Local Assessment System improved student learning in your school?

Yes 9.7% Unsure 25.0% No 65.3%

8) Do you have confidence that the various Local Assessment Systems from all over Maine will be able to provide consistent, useful and accurate information on the status of Maine's students?

Yes 5.9% Unsure 13.1% No 81.0%

Background, Results and Comments

on the
Questionnaire to All Math Teachers in Maine
on the Math Learning Results, the MEA and LAS

Attached is a report of the results and the comments in response to a questionnaire sent to all high school mathematics teachers on the math Learning Results and the assessment methods for ninth to twelfth grade math students in Maine.

The questionnaire was drafted during the fall of 2004. It was piloted with a group of twenty teachers from ten central Maine high schools in November and revised slightly in light of the comments received.

The anonymous questionnaire had several components: a yes-or-no section on the Math Learning Results, Maine Educational Assessment Test, and the Local Assessment Systems for secondary schools; an opportunity to comment on each of the yes or no questions; a request for demographic information including options to reveal the individual's school name and the individual's own name; an opportunity to address a comment to the Maine State Legislature and the school boards of Maine; and an opportunity to suggest ways to improve education in Maine.

Ninety-eight of the respondents chose to reveal their schools' names for a total of sixty-four different high schools out of the state total mailed to of one hundred twenty-three*. One hundred forty of the respondents chose not to reveal their schools' names. Thirty-two of the respondents chose to reveal their own names, while two hundred six did not.

The Department of Education provided mailing labels for a nominal cost with the name and school address of the math teachers in Maine. Some of the labels were for teachers in private schools. Initially, questionnaires were sent to 647 teachers in public schools on January 28. Within a few days it was determined that several more should be sent, and they were. After two weeks an email was sent via the Maine math list serve asking math teachers to return the questionnaires. In that light, teachers at three institutions asked to be included: Portland Adult Education, John Bapst High School in Bangor, and Fryeburg Academy. All three indicated that they were or may soon be subject to the Maine mathematics Learning Results. A marked sample was sent to Portland Adult Ed, but that group decided not to participate. Since adult education programs may be made subject to the Learning Results, it would be worthwhile to conduct a study that includes adult education programs. Each of the independent schools had six teachers. The John Bapst contingent had been included in the Department of Education listing, but had not been mailed to; the Fryeburg Academy teachers had not been on the listing. Unmarked copies of the questionnaire were addressed to each of the twelve teachers and the deadline extended.

Of 675 questionnaires distributed, 237 had been returned as of March 12. One photocopy of the questionnaire had been returned, and it was included for a total of 238 out of 675, or just over 35.2%. In a 2003 State survey of sixty percent of all the state's teachers on matters relating to

the Learning Results, only about 25% of the surveys were returned. This questionnaire had responses for just over 35% of the state's math teachers, whereas a prorated estimate of the State's survey would have included 15% of the state's math teachers.

The "Yes-or-No" answers have been tallied and the totals are included here. The specific comments for each question are included in a separate listing of the yes-or-no responses. The general comments have been compiled into five rough clusters by central topic and are included. A separate five page list of "quotes" from Maine's math teachers is also included.

Please send or email comments or call:

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Quotes Taken from the General Comments of Maine Math Teachers

I. Quotes on the Maine Learning Results initiative in general:

The time and money spent in accomplishing so little a difference is pathetic. (30)

If the test were given to the Legislature, a high percentage of them would fail. Does this mean that the Legislature is not qualified? I think not. (31)

From my experience of twenty-seven years of teaching math in Maine, I see no value in assuming that every child will be able to meet every standard. That is like saying that every child will become a doctor or lawyer or business owner. (36)

No one would disagree that the concept of having students attain high standards is worthwhile, but the reality is that it is unattainable. (45)

Somehow it has become acceptable to say that not all students will be artists, but somehow, all students must be abstract thinkers. (46)

Keep it simple, achievable and verifiable in a normal work schedule. (62)

The standards have helped me enrich the regular math curriculum. (76)

This experiment will end, I am sure, in the next few years, especially when the parents start suing the school districts. (85)

If we are to draw a line for all students, let's draw it in a reasonable place. (89)

Add to that forcing the tests to be passable by the lowest ability student for equality's sake and these tests have no real meaning. (97)

A high school diploma should guarantee that students can perform essential functions for daily business and life skills (105)

Some students will never get to abstract thought. (That is why we don't teach algebra in kindergarten.) (114)

I am not lazy, nor are my students. But the greatest inducement to succeed is success. It feels as if the Maine Learning Results are setting us up to fail. (124)

I feel it is criminal that students who come to school everyday and are good citizens who work hard, but will never meet the standards, will never get a diploma. (128)

If a minimum criterion is established that is appropriate or achievable for everyone, the expectations for the more agile-minded are necessarily "dumbed down." (148)

Students' future plans require individual planning which is not supported by the MLR. (163)

We have wasted enormous amounts of time, energy and money trying to make the flawed model work, and now we are compounding the problem trying to erect the "Local Assessment System" on the cracked and frost-heaved foundation that the Learning Results have proven to be. (168)

We are told to excite our students about math and then are required to teach a homogenous curriculum to a heterogeneous population. (192)

The Math Learning Results do not include everything that needs to be taught to all high school students. However, they do include some topics that not all students need to know. (199)

There has to be a way to do what we want to do, but first, let's be clear what we want to do: limit it and seek clear methods to meet the goal. (205)

I also believe that regardless of our standards, we will always have students who exceed those standards by a tremendous amount, as well as students who may never meet them. (218)

Although having a uniform set of Math Standards for the State is, on the surface, a commendable goal, it is not appropriate to expect them to be attained by all students from all levels. (219)

Although every Legislator and Teacher can identify peers who can barely make change or estimate a value but are nevertheless highly accomplished in other fields, we continue to require higher level math skills of all high school students. (233)

II. Quotes on the consequences of the MLR, MEA and LAS:

In the past I had time to reflect on my teaching, improve instruction, attend conferences on mathematics, and work with students. Now much of that time and energy is consumed at meetings and seemingly endless tasks associated with the Maine Learning Results. I want the time back to do my job. (2)

I am one of many teachers who will choose retirement (early) over remaining in the system to teach to assessments, create assessments and back-up assessments, double score the assessments, and finally record the outcomes of these assessments, showing whether students do not meet, partially meet, meet, or exceed "the standards." (6)

We need to sleep at night thinking we serve our students properly. This has caused me much grief and I am one of those ready to leave. (51)

We are losing content in the curriculum (56)

I currently am losing four to six weeks instruction due to the Local Assessments and all after-school help time due to reteaching and replacement assessing. (60)

After twenty-eight years of education in Maine, I am retiring because of all the mandates put forth by a group of people supposedly representing the state of Maine. The accolades I have received over the years from state and national institutions seem meaningless now ... apparently my methods of teaching mathematics are not good enough for these people. (70)

The testing is dumbing down our curriculum. My greatest concern is for the top 20% of our students. (78)

Math students from my school received a much better education nine years ago than they do now. (82)

Being creative and innovative is becoming impossible in our cookie-cutter world. (108)

It seems the state is making this up as they go along. The LR and Chapter 127 should have been ironed out before being rushed into practice. ... Because of this treatment from the state I am telling my students not to become teachers here in Maine. (119)

Lost also is the acknowledgment that some students are making progress as measured by their IEPs or alternative education plan, but find the language and presentation of the MEAs and local assessments daunting. (121)

Learning and the love of learning are being compromised. (147)

Now MLR has morphed into "all students do the same thing regardless of ability or interest." Education has turned into a happy meal. All students get the same thing and will be glad to have it, whether it helps the student or not. (157)

I know that my consultant students and most of my prealgebra students [lower level] will not be able to meet the MLR standards or MEAs. They work hard, they try, they just don't "get it." (173)

In twenty-one years of teaching high school mathematics I have had 1 (one) talented math student become a math teacher at the secondary level. After four years, she is considering leaving. (196)

As an experienced educator who has spent a career teaching grades 2 through 12, I feel strongly that the current trends in assessments have only served to exacerbate the situation of education. (200)

Our teachers now devote much of their time to developing assessments and rubrics, evaluating and documenting, rather than assisting students in mathematics. (216)

The Maine Learning Results are not improving our curriculum, but <u>weakening</u> it. (221)

III. <u>Quotes on the MLRs themselves</u>:

Maine Learning Results need to be adapted to meet the needs of every students. Many of the mathematics standards are unreasonable, unattainable and unreliable. (7)

MLR were sold as <u>minimum</u> standards. I would like to see three-quarters of the legislature try to do them! (8)

I would ask how many of the governing body could explain what complex numbers mean and describe some of their many uses, explain operations with number systems other than base ten, use linear programming to find optimal solutions to a system, or use networks to find solutions to problems. (9)

You are all successful people. How many of you know: A) the use and application of complex numbers; B) how to explain operations in systems other than base ten; C) standard deviation; D) the probability of compound events; or E) (my favorite) linear programming? (17)

The current MLR math standards are not attainable by "all" students. (34)

I found that the Learning Results forced schools to look at what was being emphasized in their math courses. (100)

The Math Learning Results are too vague and emphasize the wrong skills. (111)

The performance indicators are unrealistic goals for special education students and a good number of general education students. (132)

Make sure that the body of educators revising the math Learning Results is truly a cross section of the levels taught throughout the state. (141)

To use the current Learning Results for graduation requirements is not a realistic goal. (167)

It might turn out to be the single biggest mistake in the last fifty years of Maine history. (188)

Unless we can rework the wires in the brain we are setting up some students for failure. (193)

The MLRs should accommodate different ability levels of students. (198)

If I have to give standards for ALL students to meet in math, I'm not sure that single digit addition is something I would be willing to bet my house on. (208)

The stated secondary Math Learning Results often seem unreasonable and set up the high school students for failure. (215)

Each state, other than Maine, has had, at a minimum, an understandable set of mathematical standards for high school students. (226)

Revise the Learning Results in a systematic way to reflect what is truly important. Do one area at a time; make modifications, not radical changes. (229)

They are an all-encompassing list of skills which are "a mile wide" and allow math teachers to teach only "an inch thick." (231)

IV. Quotes on the Local Assessment Systems:

This is a cookie cutter approach to education and it doesn't take a brain surgeon to realize that not everyone can achieve the same level at the same rate. I've never heard anything so crazy. (12)

The intent of the MLR and LAS system is good. The process is overwhelming. Managing the testing and correcting process is very time consuming for both students and teachers. ... Worse yet, students are not necessarily becoming better at math ... they focus on how to answer questions for a 1, 2, 3 or 4 and not how to apply what they have learned. (14)

Local assessments are too massive a task for a Maine district. (96)

It is extremely frustrating to prepare assessments based on guidelines given to us at one moment, then find we need to change them at the next moment when the criteria change. (109)

The creation of appropriate assessments, remediation, record keeping and NCLB failing school ratings are all working to break the spirits of even your best, most enthusiastic teachers. (127)

We have devoted an incredible amount of time and energy developing and then rewriting assessment pieces to "fit" the directive of the moment. ... The facade of local authority is ridiculous – and unfair to students and educators. (152)

A student meeting the standard in one school does not mean he or she would at another school. Assessments need to be watered down if all students are to meet them. (176)

I think that requiring more mathematics from the lower 25% is a necessity in this day and age. However, requiring all the topics outlined in the MLRs is intellectually out of reach for some of these students. I anticipate that more of these kids will drop out of school due to frustration when we really should be providing them with a good set of practical skills that they will need in their work worlds. (177)

The implementation of the LAS requires so much staff and student time that the minimum skills of the Learning Results could become the only focus of instruction. (185)

A few years ago, standardized exams were written by professionals. Now, somehow, we are all qualified to do this – and for high stakes! (196)

Locally developed LAS vary so much from school to school that, by their design, they lack the standardization that the MEA testing provides. (207)

[Scoring one assessment] involved me missing class time to get these done. So, my students miss out on educational opportunities when I am out of the classroom - ridiculous! (210)

There are a lot of people who have a vested interest in prolonging the pain for as long as possible ... (211)

Preparing, giving and correcting MAPs and LADs is taking too much time from teaching. Add to that the recording, file-keeping, and retesting, and all we have is more work. (220)

As far as the Maine Learning Results go, I think it is a ridiculous waste of resources to have every school in Maine coming up with their own assessments. (224)

If you accept the premise that all students can learn and show success in a challenging curriculum, as well as that anyone can hit every target that has been set and holds true for them, the Maine State Learning Results are attainable by all students in our state. The key is providing access to a challenging curriculum for all students. (227)

Provide exceptions or alternatives to common assessments for students with limited ability. (Some of our kids would do well to meet the 5 - 8 Learning Results.) (229)

V. Quotes on the MEA test:

The MEA tests were never intended to be used as high stakes tests. (13)

Use the MEA results to help us change curriculum rather than to rate schools. (35)

The MEAs need to match what is taught and required at Maine schools. Some seniors take Algebra II their senior year at Wiscasset – after taking the MEAs. (39)

The MEAs are beyond the capacity of a large segment of the student population regardless of how we go about teaching the material. (63)

Assessments seem too rigorous for just a score of "meet" the standards. MEAs seem to be made to test the top 25% (79)

The MEA math exam may align itself with the Learning Results, but the exam is way too difficult, way too inconsistent, and does not represent the math knowledge students really do know. (102)

* These quotes are drawn from the comments of questionnaire respondents.
The number in parentheses is the questionnaire reply number.

Responses and Comments by Question of Maine Math Teachers to Questionnaire on the Maine Math Learning Results

1) Do you think any one set of standards could be appropriate as the basis for the math education of all of Maine's High School students?

Yes - 23.4% Unsure - 15.2% No - 61.5%

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8) Yes, as long as these standards were minimal; other levels could be added as resources became available.

36) Is any one set of standards like this appropriate for all people?

41) No, there are too many multiple intelligences and learning styles.

58) One standard is appropriate only if it is a minimum requirement. The current standards are for college prep kids.

89) Appropriate for all: B1, C2, D1, E1, F1, F2, H1, H2, H3, I2, J1, K1 (maybe E2, G2, I4). The rest are for college bound only

126) For a high school graduate diploma, the GED would work fine.

128) They are much too difficult for the lower 30% of students. If you teach to the Learning Results you hurt the top 30%.

163) To address all students would be to group calculus students with those who never get beyond basic math.

164) Maybe, if we set levels for entry into different areas: 4 year college, 2 year college, technical, etc.

168) Not unless they are so basic or so dumbed down as to be meaningless as a standard.

171) Certainly, but the set must be chosen to meet certain criteria that are useful!

180) If the standards were broader and not so tough to reach, perhaps.

185) It is reasonable to set basic standards of minimal skills.

186) I would like to see more emphasis on the basics... Students "need" to be able to translate geometric figures but do not even know the times tables.

203) Not possible for all.

222) Not all students are the same and one set of standards for all is unfair to a large segment of students.

237) It would have to include an evaluation at the entrance to high school to determine level and ability.

2 a) Are the 9th to 12th grade Math Learning Results a realistic expectation for all of your high school's students?

Yes - 2.6% Unsure - 3.8% No - 93.6%

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31) Not everyone needs to understand logarithms any more than everyone needs to know how to repair TVs, automobiles, computers or appliances

41) No way! They are not realistic for all.

58) Too rigorous.

89) Not all students need to have that height of achievement. We are setting many up for failure.

113) This is not supposed to be your school's curriculum.

119) The Learning Results were written to represent what it would be like in a perfect world. They should have been edited before being implemented.

122) No, because they are too ambiguous and shallow.

128) No. The bottom third of students can never reach the standards.

163) I know of no high school so advanced that this could be a realistic expectation.

168) High school students vary widely. Some need only be confident about money issues and basic level arithmetic. "High standards for all" is a belief system that is often wrongly interpreted to mean "the same high standards for all."

171) "All students" includes those with low mental functions and abilities. This is not realistic.

180) No way!

186) "All" is a utopian notion.

203) Not all are going to college.

222) The special education population and lower level students will not ever meet the Learning Results.

229) Not realistic for the very limited students (bottom 5 to 10%).

2b) Are the 9th to 12th grade Math Learning Results an adequate standard for the top 25% of your high school's math students?

Yes - 54.3% Unsure - 8.5% No - 37.2%

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8) Top 25% should shoot for "highly proficient" or "expert" level and it should be optional.

41) Still too high!

58) The top 25% need more!

89) It's appropriate for most, but perhaps not enough for some.

97) Saying "adequate" means you will get mostly "yes" answers.

111) The MLRs do not include calculus or higher math courses - also very weak in geometry.

122) No, because they are too ambiguous and shallow.

163) For the top students it would be inadequate due to the spotty nature of the assessments.

168) No. The more able are being under-served. They will find themselves behind their peers in college. We are often lectured, "The Learning Results are the curriculum."

171) These students generally have no trouble achieving the standards, but such standards are not useful.

186) The top 25% perhaps could meet the standards.

222) The top math students are going to be forced to learn only within the framework of the MLR.

229) Upper ability students can easily meet standards. It is not necessary for the MLR to reflect upper level courses.

2c) Are the 9th to 12th grade Math Learning Results an appropriate standard for the middle 50% of your high school's math students?

Yes - 37.2% Unsure - 24.8% No - 38.0%

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31) The middle 50% in most schools is the group that needs the most attention but gets the least.

39) Too wide and too deep.

41) No, the expectations are too high.

89) Some will never see or need upper level algebra or trigonometry.

100) There were some indicators that were over and above most high school students.

122) No, because they are too ambiguous and shallow.

163) The MLR seem to be written as high expectations. For the middle students, this is disheartening.

168) The middle level student will get to the next level without skills comparable to their peers.

171) "Appropriate" would be useful to the students and ours are not. Many things are irrelevant to their lives.

186) MLR is supposed to be geared for the middle of the road. Unfortunately the MLR assumes the proper prerequisites are there. They are not. Kids, in general, are not prepared, nor are they willing to rise to the occasion.

222) One set of standards for 50% of the population is unfair and can't address their needs.

229) In the current cluster system, yes!

2d) Are the 9th to 12th grade Math Learning Results an attainable standard for the lower 25% of your high school's math students?

Yes - 5.1% Unsure - 6.4% No - 88.5%

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39) Too wide and too deep.

41) Absolutely not! Many of these students can't reach them even if we teach to the tests.

50) We'd need a modified scoring approach.

58) Too rigorous for the lower 25% - not college bound.

89) Many of these students will not graduate in four years because it will take them five years to get it all - they do not need it <u>all</u>.

111) MLRs are unattainable for special ed and unmotivated students.

113) Some concepts will never be reached.

122) No, because they are too ambiguous and shallow.

128) The lower 25% will never reach these. I can't believe any math teacher would believe they could.

163) Some lower students never quite get algebra. Many PIs are way beyond them.

168) Not unless the material is dumbed down, which is happening in some situations.

171) Our lowest 25% need <u>practical</u>, not collegiate math skills.

180) Student who are not attending college should not have to reach these standards.

222) Only in a fairy tale can the lower 25% meet the majority of the MLR.

229) Not for the bottom 5 to 10%

3) Do the Math Learning Results accurately reflect what a strong secondary mathematics education should include?

Yes - 18.7% Unsure - 14.5% No - 66.8%

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31) We study math to learn how to process past knowledge with new information and reach conclusions. Knowledge of special topics is <u>not</u> the key; processing is the key.

36) These standards reflect what may be good, but only for the top group of kids.

41) No, the math dep't. at my school feels that a lot of more important concepts were left out.

64) I believe the Learning Results go beyond a strong secondary math education and are unrealistic.

89) Some yes, some are over the top.

113) I don't see the point of game theory at this level.

128) No. If you focus on just the Learning Results, the top 30% of students will never get the math education they need.

164) Too many algebraic and geometric topics are left out. There are lots of topics left out and others there that don't really need to be.

168) No. The Learning Results include some advanced topics and so have an aura of "tough standards," but they miss many of the fundamental skills and ideas.

171) I don't think so since we are preparing students for different avenues in life. There is no one-size-fits-all program.

180) Some standards are OK, some are not. Some important concepts taught in high school are not <u>in</u> the standards.

185) The MLR are not intended to reflect the desired skills for stronger students.

186) The MLR puts emphasis on obscure topics that many secondary math teachers often considered "if there is time" topics.

203) Yes, for the college-bound students.

222) The MLR do not address the needs of all students. Special ed and lower level students can't meet the standards.

229) Reflects what <u>all</u> students should have <u>available</u>.

4a) In particular, would meeting the Secondary Math Learning Results form an adequate basis for a student intending to enter a technical trade directly from high school?

Yes - 37.8% Unsure - 16.4% No - 45.8%

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7) The way the standards are set will provide an adequate education. Realistic? No, but adequate.

31) Process is important, not just specific knowledge.

39) Too much in a variety of things they'll never use.

41) Math standards and classes aligned with their tracks would be more appropriate.

58) The standards are too four-year-college oriented.

89) Too much is required for what is necessary.

97) Saying "adequate" means you will get mostly "yes" answers.

168) Most technical trades presume basic fraction, decimal and percentage skills which the Learning Results don't mention.

171) No, they don't need all that are in the MLR to be successful.

186) Once again, emphasis is not on the basics.

219) Of course. If they <u>met</u> the results as intended, they would be well-prepared.

4b) In particular, would meeting the Secondary Math Learning Results form an adequate basis for a student intending to enter a business, science or technical program in one of Maine's Community Colleges?

Yes - 42.0% Unsure - 20.2% No - 37.5%

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39) Too much in a variety of things they'll never use.

89) Perhaps the requirements of MLR are a bit too much.

128) Community College math programs will have to find a way to fill the holes in their students' math backgrounds.

168) Yes, but only because CCs assume incoming students are not proficient.

171) No, they don't need all that are in the MLR to be successful.

186) Remedial math classes are some of the most offered courses at the community college and university level.

4c) In particular, would meeting the Secondary Math Learning Results form an adequate basis for a student intending to enter a business, science or technical program in one of Maine's State Universities?

Yes - 35.3% Unsure - 21.4% No - 43.3%

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39) Not enough depth in what is needed for college.

89) This is the type of students that these requirements were set up for: the college-bound students who will generally need calculus as a college freshman.

168) No. There are skills and applications the Learning Results ignore. More important, there's a coherent theme in mathematics that the Learning Results don't acknowledge. At least in Maine, the schools will have a clue why the students have these gaps.

171) I don't think the MLR are technical enough for a math-centered career.

222) Not even close!

4d) In particular, would meeting the Secondary Math Learning Results form an adequate basis for a student intending to enter a business, science or technical program in a four year college outside of Maine?

Yes - 33.8% Unsure - 22.8% No - 43.5%

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39) Not enough depth in what is needed for college.

58) May be enough for middle level - may need more.

89) This is the type of students that these requirements were set up for: the college-bound students who will generally need calculus as a college freshman.

126) Varies with the students of the receiving school. Variation in schools is too great to accurately reflect. MIT, the U.S. Naval Academy and WPI have different criteria.

168) No. There are skills and applications the Learning Results ignore. More important, there's a coherent theme in mathematics that the Learning Results don't acknowledge. Schools out of state will have less tolerance for students with these gaps.

171) I don't think the MLR are technical enough for a math-centered career.

222) Not even close!

228) Colleges outside of Maine (some inside) look at SAT, ACT and AP scores, not MEAs. Our time should be spent preparing students for those exams.

229) These students need more math.

4e) In particular, would meeting the Secondary Math Learning Results form an adequate basis for a student intending to enter a strong liberal arts college?

Yes - 34.5% Unsure - 24.4% No - 41.2%

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39) Not enough depth in what is needed for college.

58) These students should be going through calculus and statistics.

89) This is the type of students that these requirements were set up for: the college-bound students who will generally need calculus as a college freshman.

168) In my experience Colby, Bates or Bowdoin have very high standards. The Learning Results version of math is not adequate.

171) Yes, I think the MLR are broad-based in scope and would be adequate.

186) Students at liberal arts colleges tend to be competitive and well-prepared regardless of state mandated standards.

222) Not even close!

229) These students need more math.

5) Do you think that simply revising the Learning Results Performance Indicators would result in a common math curriculum that would be adequate, appropriate and attainable for all of Maine's students?

Yes - 15.2% Unsure - 26.0% No - 58.9%

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31) Yes: stay away from complicated and specific knowledge.

41) No! One set of standards wouldn't be attainable for all.

50) We'd need a modified scoring approach.

58) Students have different goals in life, and we shouldn't expect every student to be ready for a four year college!

60) If this means redeveloping the LAS, I'll kill myself.

89) Only if all Maine students were cloned from the same college-bound one.

91) Any standard that is attainable for all students does not result in any improvement or raising of expectations.

100) The Learning Results should be a base set of expectations for math students in Maine.

109) What guarantee will there be that the revisions will be better? They may be worse.

113) Without a curriculum agreed to by the state of Maine, not everyone will be doing the same thing. No one has the same materials. Some districts are poor.

128) I wish we just went with the federal guidelines on No Child Left Behind.

163) Avoid PI's which are appropriate for specific paths, but not a common standard for all.

168) The Learning Results model is flawed. It ignores the coherent curriculum that helps make math make sense and substitutes an unorganized list of favorite topics. No one set of standards will do for the wide range of students in Maine.

171) The MLR could be OK if the performance indicators were changed. But as it stands, they go together and, as such, are not appropriate.

185) MLR is a minimum standard, not an ending goal.

186) You can't put a band-aid on a gaping flesh wound.

199) A major overhaul is necessary. It should be done by math teachers, not an ex-governor *et al.*

222) The only revision the MLR needs is to be thrown out totally and forgotten.

229) Yes, but only to represent a common level of attainment (minimal!) This effort could result in highlighting the most important concepts.

6) a) Is the MEA [Maine Education Assessment Test], which is given to all Maine 11th graders, an appropriate tool for assessing the mathematics education of your high school's students?

Yes - 14.7% Unsure - 16.0% No - 69.3%

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22) The MEAs are not taken seriously by a large percentage of students and as a result the data is not accurate.

36) This is neither appropriate nor adequate for finding out how all students are doing.

50) The questions lack specific focus.

65) MEAs have absolutely no intrinsic value to our students. They view these assessments as a complete joke, regardless of how hard teachers try to prep them. It is not fair that teachers and schools should suffer as a result of students' lack of effort!

89) You are testing all students on material that is beyond many - not all go on to college.

97) MEA tests too many students on material they have not had yet.

119) The MEAs are like the SAT, sometimes harder. It doesn't test achievement.

122) I think an end-of-course test for Algebra I, Algebra II and Geometry would make more sense since some students may not take all these courses.

128) No. As a school we score low on MEAs, but our SAT & ACT scores are very good.

164) There is no accounting for the level the student is on. If they are taking Algebra 1 or Geometry during their junior year, no way will they be successful.

168) Students rightly see the MEA as meaningless. The NCLB hook punishes only the school and its future students.

171) Without the test counting for something, students don't take it seriously. It must be tied in to graduation or abolished!

180) Some students have not completed geometry and some have not even started geometry when they take the test.

185) MEA is not a good measure of individual performance.

186) It has its merits. Many students confess to being overwhelmed by so many consecutive days of testing.

199) It is not a valid test, nor is it consistent from year to year. And it always includes mean, median and mode which are 5th to 8th standards.

222) No. the MEAs don't mean anything to the students - not grades, graduation req'ts, etc.

229) A bit easy for upper ability students - students are not motivated to do their best work.

6) b) Is the MEA [Maine Education Assessment] Test, which is given to all Maine 11th graders, an accurate tool for assessing the mathematics education of your high school's students?

Yes - 9.2% Unsure - 15.1% No - 75.6%

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8) As long as it is strictly pencil & paper, students with alternative learning styles will continue to be inaccurately represented.

41) No. Some students don't test well, but if they are given more time they could do better.

50) More emphasis is placed in our reliability in scoring than on appropriate content.

58) I'd like to know who creates the Math MEA. We have students scoring in the six and seven hundreds on the SAT who only "partially meet the standard." Maybe they just don't care!

89) It fails all tests for reliability and validity. How can it be accurate?

128) No. Top students do not care about MEAs and the bottom 30% don't care either.

168) No. Effort levels vary widely, and so do the circumstances of testing.

171) The test changes dramatically from year to year. You are never measuring the same things.

180) No. I have seen errors on the actual MEA.

185) It serves as a general measure of curriculum, but it is compromised by student effort or lack thereof.

186) Not necessarily. Many do not take them seriously because there is no direct correlation between how they do on the test and getting into college, graduating from high school or getting a job.

222) No. the MEAs don't mean anything to the students - not grades, graduation req'ts, etc.

7) Has the development of your school's Local Assessment System improved student learning in your school?

Yes - 9.7% Unsure - 25.0% No - 65.3%

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31) How can you improve learning when you take qualified teachers out of the classroom to develop and correct tests, and replace them with unqualified substitutes?

36) We have spent so much time trying to prepare for this (with no direction) we have no time to do other things we need to do.

41) No. The local common assessments just give us valuable data on what needs to be taught more in depth or differently.

50) It's too early to tell - I hope so.

58) We have just started giving them this year.

60) No. It is taking time away from my students.

89) It increased student fear and panic - especially among ninth graders.

97) It's just a hassle for teachers, especially in small districts.

100) Our district feels that it is important to develop an LAS. It has glitches and has caused some stress, but we decided years ago to do something.

109) It has brought teachers together to work collaboratively - a good thing.

113) Hasn't been created at the present time.

119) No, because we have had to change assessments every time the state changes its mind. The state doesn't seem to have a clue what it is doing. They seem to be making it up as they go along.

122) We created our own assessments for the most part. I feel I am applying computation skills more often now.

126) Not a bit! No! It has definitely hurt low-level, low-performing students!

128) No. The stress on teachers has had a negative effect on their attitudes and their ability to be creative.

168) The assessment system is a bad joke. It elevates a few insipid problems to the status of graduation requirements and exhausts the graders with falsely rigorous standards. The resulting remedial courses have eliminated some math electives.

171) Our focus is now more centered on what to achieve and then teaching that.

180) I doubt it. There is <u>less</u> time to learn now.

185) Awareness of the need for better standards has improved. The LAS is not yet working.

186) NO! It has removed focus and distracted teachers from what they should be doing in the classroom. It has actually taken away from time and learning in the classroom.

199) It has absorbed so much of our limited professional development time that no time is left for curriculum development.

228) No. Less time is available to prepare for SATs and AP exams.

229) Definitely - it has increased expectations and has raised the bar for all. Also more math options.

8) Do you have confidence that the various Local Assessment Systems from all over Maine will be able to provide consistent, useful and accurate information on the status of Maine's students?

Yes - 5.9% Unsure - 13.1% No - 81.0%

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36) I have no doubt that some schools are not doing what they are supposed to be doing. Maybe because they can't get appropriate answers from the state about what they need?

41) No. All schools are developing their own assessments. Some could be more difficult than others and we'd be comparing apples to oranges.

50) We should ultimately be able to tell when cross referenced with appropriate MEA items.

58) The very idea that each school can design its own assessments and that that will be a valid way of assuring standards is bogus. There should be state standardized tests like the Regents in New York.

89) How can one hundred plus schools who develop their own their own plans be consistent?

97) No. They all have different levels of local assessment.

109) From school to school there is no level of consistency with the LAS. Unchecked mandates are useless mandates.

113) Without a curriculum written by the state, not everyone will be doing the same thing.

122) I have no knowledge of what other schools are doing. I feel ours are pretty good.

128) No. I find myself teaching directly to the test.

142) How can it be consistent if everyone does their own thing?

157) The common assessments are a burden that will force many talented educators from the profession.

168) The local systems are formulated independently and will not support transferable information in which the recipient can be confident.

171) Yes. Math educators and administrators are professional and reliable. We can design and implement appropriate tools for use with <u>our</u> curriculum.

180) Not at all. Everyone is using a different assessment. How is that consistent and accurate?

186) Consistent? Useful? We don't even have a way to record scores, keep track and compare. They're good theory applied badly.

199) No. The very nature of the development of the LAS breeds inconsistency and unfairness statewide.

222) The LAS will cause teachers to teach to the test. The assessments drive the instruction and that will never work. Our LAS seems to change almost daily and we will never be able to

grade all the assessments, even working 365 days a year.

229) There's too much variation from school to school.

General Comments of the Responding Teachers

The following comments include almost every general comment made by the responding math teachers. They have been separated roughly and somewhat arbitrarily into five categories:

I. Those comments that seem directed toward the general initiative itself.

II. Those comments that seem focused on the consequences of the initiative.

III. Those comments that seem to address the Learning Results structure.

IV. Those comments that seem to address the Local Assessment component.

V. Those comments that seem to address the MEA test.

In four cases the comments were separated into into "a" and "b" parts that seemed suited to different categories.

The teachers who are identified gave explicit permission. The two comments identified with * are from teachers who said they were not currently teaching a half-time load in math; each seemed to be in a supporting setting, special education or alternative education.

There has been editing only for spelling and grammar. A string of punctuation symbols was substituted for one word.

Category I Comments that seem directed toward the general initiative.

1) Brian Jones

In an effort to set high standards for all students, the State has misguidedly interpreted this to mean the same high standards for all students, denying the uniqueness of individual students. As Thomas Jefferson said, "There is nothing more unequal than the equal treatment of unequals."

25)

All the curriculums in the world will make no difference unless students develop the habit of reading and thinking for themselves. The problem begins at home – parents need to read for themselves and read to their children. I have students who don't know the meaning of words such as "equivalent" or "compute." (No, I'm not kidding.) Their vocabularies are atrocious weak. I cannot teach algebra when I'm busy teaching them what "compute" means.

If there is going to be a campaign, it needs to be directed at parents, to make them understand their responsibilities. They are the real teachers whether they like it or not.

30) Bruce A. Thompson (Dirigo)

After 35 years of teaching I have seen many different initiatives come and go. As the years progress, the initiatives become more and more complicated. If one wants to make changes, one needs to think "simple," but this does not happen. Any new initiative that has been presented has required the understanding of a booklet that is hundreds of pages in length. It seems like everybody and his brother believe they are authorities. As a result educators and non-educators are dictating to educators as to how to educate. The time and money spent in accomplishing so little a difference is pathetic. Many who have a love to teach and help young people to mature to adulthood get frustrated with this mindless uselessness and turn to some other type of employment.

31) Gary J. Tibbets

The main reasons for studying mathematics at any level is not reflected in the Maine Learning Results. We study mathematics to learn how to process past knowledge with new information and reach conclusions. Knowledge of special topics (for example, matrices, logarithms and trigonometry) is not the key to knowledge. Process is the key to an informed citizen. If the test were given to the Legislature, a high percentage of them would fail. Does this mean that the Legislature is not qualified? I think not.

36)

From my experience of twenty-seven years of teaching math in Maine, I see no value in assuming that every child will be able to meet every standard. That is like saying that every child will become a doctor or lawyer or business owner. Some kids just can't grasp algebra. That set of skills may never come or it may come later in adulthood. This endeavor has created much work, with very little pay-off, and it has taken the focus off what we do best.

37)

The problem has never been, "No child left behind." The problem is, "No child pushed ahead." If a student does high school in two and a half years – good! If it takes six years – good! Don't graduate early or late until they deserve to.

41)

I have been teaching mathematics in two different high schools in Maine for the past twenty years. As we change curricula K to 8 to include mostly problem solving, I find that students at the high school level are lacking in the basic fundamentals of math such as fractions, decimals, integers, multiplication facts, etc. Students used to know these fundamental concepts before entering high school; now they don't. Fractions without a calculator with "fraction key"? Unheard of!! Kids don't know that a fraction is just division. It's sad!

The Maine Learning Results for high school students are not appropriate for all students. Students learn differently and at different rates, and some may (will) never be able to reach these standards. The standards are idealistic, not realistic for all Maine high school math students Just look at the data over the past years and see what percentage of the students in Maine "meet the standards" or "exceed the standards" in math at the 11th grade level. I believe you will find that many more "do not meet" or "partially meet" the standards instead. Are the "goals" too high? I believe so!

Just look at the data over the past years and see what percentage of the students in Maine "meet the standards" or "exceed the standards" in math at the eleventh grade level. I believe you will find that many more "do not meet" or "partially meet" the standards. Are the "goals" too high? I believe so.

45) Neil P. Payson

No one would disagree that the concept of having students attain high standards is worthwhile, but the reality is that it is unattainable.

Schools and administrators are focusing on materials that improve MEA results but seriously short-change the students with content, especially as it pertains to basic skills - which will then be revealed in college entrance exams and job placement tests, etc. In my opinion, this seriously undermines the goals of secondary math educators.

46)

The Learning Results assume that all students learn "life skills" at home. They do not address business and personal math. The high school standards are based on abstract math. Not all learners can attain them. Somehow it has become acceptable to say that not all students will be artists, but somehow, all students must be abstract thinkers.

62) Clark Porter

Keep it simple, achievable and verifiable in a normal work schedule. Don't add more work for a program which will change again! Local control is imperative.

69)

Our students, and I'm sure the students of all schools, vary greatly in their ability levels. Using one test or one group of assessments to judge each student is inappropriate. Some of our students will never progress to the point of meeting all the criteria of the MLR/MEA. That does not mean that these students are not working to their potential, nor that they do not deserve a diploma. While every effort should be made to have every student meet the Maine Learning Results standards, it is unrealistic to think that all students are capable of achieving this benchmark.

74)

I wish that the standards set upon us by the State would stop changing. I believe that all kids can learn, but not necessarily to the level that our Learning Results are asking without a good, strong, basic foundation. I feel that if a student cannot add, subtract, multiply and divide without the use of a calculator, then the upper level classes are above their reach and ability. I feel that we need to provide the support to our students at the elementary level to enhance these criteria and, in doing so, we'll build excitement and interest in mathematics due to students being successful. Overall, I have seen mastery of basic facts deteriorate in the last five years, where students now don't know their multiplication facts.

Why start chapter 127 with high school students and not kindergarten? Why not come into the schools and see the challenges we face daily? Why is there no parent connection to the Learning Results? Why are you asking us to continually change what we have done? Who is going to check our results? How can we justify all of this with the current budget restraints? Why does it seem the Maine government continually slams the teachers?

76) Crystal St. Onge

The standards have helped me enrich the regular math curriculum. They have helped identify gaps (like probability and statistics concepts) and forced our department to now address those concepts in more depth. It has been and will be a difficult transition, but in the end, we will all benefit.

85)

Anyone who believes you can evaluate a student's math knowledge from a small group of assessments should have his or her head examined. This experiment will end, I am sure, in the next few years, especially when the parents start suing the school districts. We are spending so much of the time as teachers doing these assessments and associated paperwork, that actual time available for teaching is being reduced dramatically. What will be and is happening is basically teaching the assessment prior to giving it.

Having worked in business and industry, both as worker and owner, I can state that our curriculum is inappropriate given what is needed by most of our students. Education in this country is 400 years of custom unimproved by progress.

89) Anne E. Scott

Parents of more than one child know, and often have to remind themselves or be reminded, that different children have different strengths and abilities. They are not carbon copies of each other, nor of their parents. We as educators have been taught that kids should be treated as individuals. Why then has someone decided that all students need to be ready to take calculus in high school or college? That is how the Learning Results were written. Yes, there are skills that all students should have, but should tracking trigonometric periodic phenomena be one of them? Or should defining examples from game theory? If we are to draw a line for all students, let's draw it in a reasonable place.

What this assessment plan and these requirements will create is a situation where many students will give up. Our standards are higher - great - but so is our drop out rate.

97)

Math Learning Results will not make a difference: [standards set at] 62.5% and 37.5% make it useless. Add to that forcing the tests to be passable by the lowest ability student for equality's sake

and these tests have no real meaning. If you want real results, recognize that there are differences in student learning. Some students will need more time to meet certain proficiencies, while others will go beyond them. If you want real results, then tier the Learning Results. Have diplomas that identify the what level of proficiency each student meets. Set goals for students to meet, not a basic proficiency that can be easily met with tests geared to the lowest denominator.

By the way, wake up and smell the roses! More and more students don't even bother to retain how to add 17 + 8. How can you expect they will care to retain all of the Learning Results once they have passed them?

Teach students how to think about math. Build their confidence at the lower grades with the basics. We don't force all students to excel at art, music, sports, mechanics, etc. Recognize there are differences and help each student excel to their potential, not a watered-down proficiency.

103)

The theory behind MLR is fine, but the MLR themselves and the implementation needs improvement. The Learning Results are poorly written (at least for math). For instance, each Indicator has too many items to meet and it is difficult to identify if a student must "meet" the Indicator or just a portion of it. Each Indicator should be specific and should have only one item to "meet." Also, the energy and time spent developing tasks and scoring is not cost-effective and has actually taken time and energy away from creative teachers.

105)

Recognize that not every student wants to go to college and some just can't cut it. A high school diploma should guarantee that students can perform essential functions for daily business and life skills, and it does not have to be college preparatory.

Rather than teach tasks the students can ape, teach skills and require them to think. Some of the approved assessment tasks are not applicable to daily life, even for mathematicians. The tasks should be written to measure students' knowledge in area applicable to daily functioning, not to impress other teachers on the various panels and committees.

106)

We have nothing that accommodates students who fail math throughout middle school, then are suddenly expected to successfully meet high school standards. Question: how do you teach students linear programming if they can barely solve an equation?

114)

The Maine Learning Results tell us that all students need to attain the higher levels of abstract thought in mathematics by the 12th grade. Some students will never get to abstract thought. (That is why we don't teach algebra in kindergarten.) I feel we are telling students they must learn at the same time as others, but we know through research that people learn at different rates.

124) Michele LaForge

I am a new teacher and therefore can take advantage of a perspective that I will necessarily lose over time: a perspective unhampered by any personal investment in programs or systems and enriched by a work history outside of education. We talk about life-long learning and encouraging life-long learning as if it's the exception rather than the rule. In my experience, on the whole, people learn what they need when they need it. One of the challenges at the high school level is to

get kids to invest now in what they'll need later.

It seems to me that the program designed to initiate and achieve compliance with the Maine Learning Results (perhaps it is the learning results themselves – I can't tell) consists of two overarching goals whose parameters are inconsistent and will ultimately keep us from success. I think that comprehensive content coverage is largely a matter of breadth of knowledge, and that efficient, relevant, retained, applicable mastery of any subject is largely a matter of depth. I think the achievement of both breadth and depth is a matter of a lifetime, not three or four hours a week for nine or ten months a year.

I was a topnotch student in all levels of education, and I am a high-achieving adult. I am not lazy, nor are my students. But the greatest inducement to succeed is success. It feels as if the Maine Learning Results are setting us up to fail.

128) Donald F. Pietroski

The Department of Education is out of control. They are not in daily contact with students and thus do not understand their daily needs. The Department of Education is governed by people with elementary backgrounds and the people do not understand the needs of high school students.

In three years, when this freshman class is ready for graduation, there will be many students who will not get a true high school diploma. Instead, they may get a certificate of attendance. I feel it is criminal that students who come to school everyday and are good citizens who work hard, but will never meet the standards, will never get a diploma.

I am very sorry that the statewide teachers' association, the MEA, and the Maine Principals' Association have not taken a stronger position on the issues of the Maine Learning Results. I am not a member of the MEA because they refuse to be advocates of the students.

134) Chahbaz Asarkadeh

Please look to some other places and see how they do it. Examples in Germany and France.

140)

In order to graduate from an accredited four year high school, certain standards must be met. We need to stop adding layers to our assessment system. Teachers and students need to be held accountable. The opportunity to learn is there; it always has been. More testing doesn't mean a thing. Let students meet criteria and stick to the standards. No watering down of courses. No social promotions. Let students rise to the standards.

148)

a) Math is needed by everyone - it makes people smarter.

b) The same math is not appropriate for everyone.

c) If a minimum criterion is established that is appropriate or achievable for everyone, the expectations for the more agile-minded are necessarily "dumbed down." In this way, the expectations become inappropriate for the higher achieving students.

163)

Parts of the Maine Learning Results target the students' future plans. Unfortunately, requiring all students to be prepared for all futures is overwhelming and needless. Students' future plans require individual planning which is not supported by the MLR.

166)

As an educator, my experience is at too low of a level to comment. As a parent, the system isn't delivering yet.

168) Jim Perkins

The Learning Results initiative was well-intentioned, but has been a failure in several dimensions. The most significant and harmful has been the fallacy that the math Learning Results substitute for a well thought out and aligned curriculum. The second is the notion that one set of standards is well-suited to the needs of all Maine students. Some students will struggle through high school to master the material that others "got" in seventh grade. There are significant differences among students, and the principal stupidity of the Maine Learning Results & No Child Left Behind is to deny them. We have wasted enormous amounts of time, energy and money trying to make the flawed model work, and now we are compounding the problem trying to erect the "Local Assessment System" on the cracked and frost-heaved foundation that the Learning Results have proven to be.

169)

If the state applies mandates, such as the Maine Learning Results, make sure everything is thought out. We spent years at tax payer expense developing a program to implement the Learning Results and the state kept changing things. All this did was to encourage frustration and doubt in the system. Money and time was spent for nothing. If the state mandates programs, I wish they would develop programs that would be cost effective with clear goals that are attainable. In addition, the state should provide the money to implement and support the program.

180)

The Maine Learning Results should be abolished. I have taught math for twenty-two years and I think some of the standards are out of reach for many of our students. (For example, why does everyone have to understand imaginary numbers? or matrices? I imagine most adults have never heard of either one!) These common assessments are ridiculous – too many restrictions on grading, etc., and how will anyone in the State ever know if they are valid or reliable? I imagine there will be a lot of "teaching to the test," and much of the content we used to have time to teach will have to be eliminated.

192)**

We live in a diverse world. Our students have different hopes and dreams. They will need different skills to meet those individual needs. Business-minded students need specific math skills. Technical minded students need specific math skills and those who are still searching need a broad spectrum of math course so that no door will be closed while they search for their dreams.

Requiring all students to learn the same skills denies their individuality. On the one hand, we as educators are directed to incorporate more hands on activities into our curriculum; on the other hand we are told to teach the same curriculum to all students. Hands on exercises to a future nurse look very different from hands on exercises to a future carpenter. We are told to excite our

students about math and then are required to teach a homogenous curriculum to a heterogeneous population. Shame on you for short-changing our students and shame on you for requiring the impossible from their teachers.

197)

The testing should never have started with the class of 2007. Students are not used to the standards and are not used to the standards and do not understand the ramifications of not passing them. Start them in first grade. It was difficult to get the first round of tests developed, double-scored, check our reliability and validity while the state continued to change the rules or hadn't developed some rules.

Too much time, energy and money is being used to create tests in each district across the state. The tests vary in difficulty from district to district.

The students are being tested to death. We have fifteen math assessments over a two year period. Add MEAs, SATs and individual teacher tests – it's too much. I have to stop teaching the curriculum and teach to a test. I realize the common assessments should become the tests for a course instead of the chapter tests. However, some of the performance indicators are not covered in our texts. The performance indicators are unrealistic. How many legislators can count in base 2 or base 4 or tell the many uses of such a skill? Or draw a scatter plot and find the line of best fit? Or derive a formula? How about knowing where to find one and being able to use it?

Many students can live a productive life and not have studied algebra or geometry. A good working knowledge of numbers (decimals, percents, etc.), consumer information, how to read statistical information and draw conclusions – these are the things that should be tested.

Remediation and retesting is a nightmare. When do we remediate? During school? Then students miss new curriculum material. After school? Students are tired and those who are disenfranchised won't remarkably become so after school or at night. During vacations? Who's going to do it? Teachers would have to be paid extra. Summers? Many students have jobs and it would require more teachers and more money. And how do we remediate? If students didn't get it the first couple of times, teaching techniques need to change. New resources take more money.

Where does a school store all the tests for all the students? If a lawsuit becomes real, we'll need all the information necessary to fight it (K to twelve ... that's a lot of tests)

I do not have a problem with "raising the bar," but let's do it in an organized and fair way.

199)**

The entire structure of the Maine Learning Results was developed with little or no insight into the future. The Performance Indicators were written hurriedly, resulting in district curriculum committees spending much time on interpreting their meaning. The process allowed two years on curriculum before we were expected to spend the next five years on assessment. The state "directives" have generally come two years after something was supposed to have been done, giving new meaning to the phrase "jerking our chain." Also, Chapter 127 is so convoluted that it is causing more time to be wasted on its interpretation. The lack of input by real educators is so obvious in the entire process. It is laughable to think that the recently appointed "task force" will be able to "fix" it.

Most lacking of all in the years we have worked on this is that NOTHING will cause improvement in the learning of students until we address the real problem at the root of the original reason for ALL of this – the lack of responsibility for their own learning on the part of many students.

The Math Learning Results do not include everything that needs to be taught to all high school students. However, they do include some topics that not all students need to know. Worst of all, they are poorly written, with some performance indicators very broad and others very specific. Some PIs (e.g., the trigonometry one in geometry) are incorrectly written.

205)

We need to find a way to measure minimum competencies in a manner consistent across the state. this probably needs to be in a different form or tie than when we are trying to sort students by level of proficiency. I don't believe the MEAs do a good job of measuring minimum competencies, because we are also trying to rank students with harder questions; the result is that some of the weaker students just quit. But other methods, such as portfolios, are way too inconsistent across districts. And the "state" bundles are written by mathematicians for mathematicians.

There has to be a way to do what we want to do, but first, let's be clear what we want to do: limit it and seek clear methods to meet the goal.

218)**

It is very difficult to fit in the many concepts we need to cover based on the NCTM standards. Now we have to include the Maine Learning Results as well. After teaching for twenty-three years, I feel quite confident in what I do in the classroom. I also feel that a lot of the particular concepts the students learn may never be seen again once they leave the school.

It is my belief that one of the most important things I teach everyday to all of my students is problem solving. I teach them to become better thinkers. Regardless of what particular concepts they learn in my classroom and may need as they head to college, if they can think better, they will do better in the long run.

Don't get me wrong – I do believe the curriculum is important and that students should strive to do their best. And I always encourage the students to challenge themselves and get as much education as possible to be as well rounded as they can be. I'm just not convinced that all students need to learn linear programming, complex numbers, logarithms, and, least of all, numbers in bases other than ten (which is not taught in our district at all!) so I am not sure that the Learning Results are the best thing for our state.

I do believe standards are important. However, I also believe that regardless of our standards, we will always have students who exceed those standards by a tremendous amount, as well as students who may never meet them.

I'm not sure what the solution would be, but I think it should be different.

219)

Although having a uniform set of Math Standards for the State is, on the surface, a commendable goal, it is not appropriate to expect them to be attained by all students from all levels. It would be nice if all students went on to higher education, but it is not realistic. This approach does not prepare the student going into the trades, but instead discourages them from learning what math they could and need to learn.

224a)

I am completely opposed to the MLR the way the system is set up at this time. First, the entire process takes too much time. The students spend more time being tested and less time learning. The teachers spend an inordinate amount of time producing appropriate tests, rubrics, grading the assessments, and recording and reporting the results.

We already have the MEAs. What is the purpose of the MEAs? Why are we duplicating work through the MLR that could be accomplished by the MEAs or vice versa. At the very least, get rid of one or the other.

... I absolutely support having a standard that every student should meet before graduation, but it should be done through a statewide or even nationwide standardized test. Otherwise, the system is too subjective.

233*) Dora Lievow

Although every Legislator and Teacher can identify peers who can barely make change or estimate a value but are nevertheless highly accomplished in other fields, we continue to require higher level math skills of all high school students.

We know that math reasoning is a separate intelligence. Why not treat our math capable students as a separate cohort?

Our public schooling arose out of the Jeffersonian concept of an informed citizenry. Algebra should not be required for a citizen to vote or to graduate.

II. Comments that seem more focused on the consequences of the Learning Results initiative.

2)**

I am losing time. In the past I had time to reflect on my teaching, improve instruction, attend conferences on mathematics, and work with students. Now much of that time and energy is consumed at meetings and seemingly endless tasks associated with the Maine Learning Results. I want the time back to do my job.

5) Vanda L. Madore

There is an imperative need for consistency in Level II assessments given throughout the state. We must also have one accounting system that keeps track of students' achievement of the Learning Results so we can communicate and share ideas amongst schools.

6)**

I am one of many teachers who will choose retirement (early) over remaining in the system to teach to assessments, create assessments and back-up assessments, double score the assessments, and finally record the outcomes of these assessments, showing whether students do not meet, partially meet, meet, or exceed "the standards." Math assessments that have been "chosen" by our school have been scrutinized for validity, measurability, etc. Too much time, paperwork, security – wasted! Just let me teach ... Oops, too late – I'm calling it quits!

I find that with each new freshman class, a larger percentage is ill-prepared for high school mathematics. Holding students accountable at a lower age level might at least alleviate the pressure being put on the high schools. It's nearly impossible to meet the standards in Algebra and Geometry when 25% of your freshmen still struggle with basic math facts.

51)

We do a disservice to students making them take upper level mathematics that will not serve them in any way other than making them feel like failures. Many students will move on to many careers. How many need to know about imaginary numbers? Not many!

Math teachers will leave the field to make more money elsewhere. The quality of math education has started and will continue to deteriorate as we leave the field. We need to sleep at night thinking we serve our students properly. This has caused me much grief and I am one of those ready to leave.

56)

We are losing content in the curriculum due to the assessment of the Maine Learning Results.

60)

Allow me to teach again. I currently am losing four to six weeks instruction due to the Local Assessments and all after-school help time due to reteaching and replacement assessing.

65)

The state has created an inconsistent system across school districts. Unrealistic performance indicators for all students. Performance indicators are not indicative of what all students should be

able to do and know for graduation. Amount of time and money spent is ludicrous. Too much testing, and not enough time for meeting our curriculum. Time required to complete assessments has created less time to spend in our classrooms educating our students. Autonomy has been stripped from educators. We are teaching to the test versus teaching the curriculum.

70)

I used to love teaching secondary math; sharing excitement with students as they learned to solve problems. After twenty-eight years of education in Maine, I am retiring because of all the mandates put forth by a group of people supposedly representing the state of Maine. The accolades I have received over the years from state and national institutions seem meaningless now ... apparently my methods of teaching mathematics are not good enough for these people.

78)

We are wasting too much time preparing for MEAs and Local Assessments. Then we are wasting more time giving the exam - at least two weeks for the MEAs and probably six to ten days for local assessments. That is almost a month of school. The testing is dumbing down our curriculum. My greatest concern is for the top 20% of our students. School departments are so concerned about the published results of the MEAs that students are being forced to review for the exam. This is not the best use of our time for advanced students.

Too many decisions regarding math education are being made by non-math majors. Too often decisions for high school math are being made by administrators with elementary education majors. I am very concerned about math education in grades 6 to 12. Learning may be a secondary concern of middle school philosophies.

82)

The Maine Learning Results standards and directives have caused my curriculum to be watered down. The school standards are lower, impacting my personal curriculum standards. Math students from my school received a much better education nine years ago than they do now. Teachers don't have time to reflect and create meaningful lessons. We don't have time to do the necessary classroom and daily assessment chores. We are being encouraged to teacher to a test (the MEA) or a bogus unmeaningful standard! Now our administration is telling us we need to review with our students for a week prior to the MEA. Even more time is gone! Current students are receiving, on average, one year less math than students prior to the MLRs. Block scheduling and math don't work well - if you don't believe the Maine math teachers, look at the research.

90) Robert L. Remington

The Maine Learning Results, local assessments based on MLRs, and the MEAs are a major waste of time. We spend far too much time during the school year assessing, thus removing valuable instruction time from a subject - math - which is very content laden.

92)

The Learning Results should have been implemented bottom up and not top down. I think the concept is good, but it is being rushed. We have assessments that have not been sufficiently piloted and no way to report results to parents.

101) Charles Carter

The amount of time, energy and effort put into the Learning Results and the Local Assessment System has been overwhelming while trying to teach at the same time. At this stage, I would rather the State of Maine had set a curriculum and done a statewide assessment. There would be more validity in such a program. There is nothing now to prevent teachers from teaching to a specific assessment. Many good veteran teachers are considering or have retired early!

108) Robert L. McCully

I love teaching, but remain in it in spite of the recent changes, certainly not because of them. Every retired teacher I know left because of the Learning Results, Level 2 assessments, etc. It has caused us to eliminate our lower track because students in those sections "cannot get enough to meet the standards." This causes those students to be forced into classes way too demanding for them – (at least the classes used to be too demanding – everything is being dumbed down now). There's not time to work on improving delivery of content; all of our time and money is allocated to the Learning Results. More and more class time is being usurped by the Learning Results. Being creative and innovative is becoming impossible in our cookie-cutter world.

115)

I would love to be able to have the time to respond thoughtfully, but too much of my time is taken up dealing with the Maine State Learning Results!

119)

It seems the state is making this up as they go along. The LR and Chapter 127 should have been ironed out before being rushed into practice. It appears that the state doesn't care about the frustration they are putting the teachers through. Every two or three months the rules change. We have written first year assessments numerous times because we learn that there have been changes made to what the state wants.

Because of this treatment from the state I am telling my students not to become teachers here in Maine. I feel as if I am being treated as a second class citizen and getting no respect for the work that I do.

121*)

Assessing students in the ninth grade with at least four local assessments in each subject area, along with regular tests and quizzes, has changed the educational experience for these students. Teachers are rushed and focused on assessment; students are stressed with the increased number of assessments and the high value put on each. Lost is the creativity for the teacher. Lost also is the acknowledgment that some students are making progress as measured by their IEPs or alternative education plan, but find the language and presentation of the MEAs and local assessments daunting. Do students who are giving us their best selves effortwise deserve a diploma even when they do not meet the standards? I believe they do.

125)

I believe that the MEAs are adequate for our 300 level [second from the top - ed.] and Honors students. However, most of our students are at the 100 or 200 level. They will not be attending post-secondary school, cannot retain the mathematical concepts to be successful on the current MEA. With "No Child Left Behind" we will be trying to teach concepts to students who are not

developmentally ready to handle them.

147)

The students are getting too stressed out, as are the teachers by being required to give fifty assessment tests to students during their freshmen and sophomore years. This is in addition to all the other tests and quizzes scheduled in the courses. It's too much!! Teaching of content is compromised by having less time with the students to teach.

This 'no child left behind' leaves behind all students who are unable to take geometry, for example. The concept sounds great, but it is not working at all.

Students are being over-assessed. Learning and the love of learning are being compromised. Some teachers coach the assessments to get them out of the way. There is not enough time in the school day or year to give assessments, grade the, go over them, record the data, tutor and retutor and retest plus deal with parent/student concerns. Let's teach the course content and quit spending so much time on this.

157)

The Maine State Learning Results started with the idea that each student would be an individual and we as teachers were to nurture and support them, to take that individual as far along that learning process as we could. Now MLR has morphed into "all students do the same thing regardless of ability or interest." Education has turned into a happy meal. All students get the same thing and will be glad to have it, whether it helps the student or not.

158)

The learning results are not the solution. All the schools have different expectations for their students. What one school may consider "meeting the standard" another school may consider "exceeding the standard." The process has been a lot of work and taken me away from what I really love to do – and that is "teach." I feel this has been a waste and if it continues, I will be leaving the profession in Maine.

171)

As a math educator for 17 years, one who has worked with the MLR since its inception, I would say these standards have had the least impact on my teaching, my school's curriculum, and my students' learning. We utilize the national Math and Science standards, which are far more useful, clear and attainable. Our students in Maine do pretty well in mathematics as a group. The MLR and Performance Indicators only serve to create more work for everyone, and most of it is meaningless. The accompanying stress is killing off the profession!

173)

We have two math curricula: traditional (algebra, geometry, etc.) and Integrated (Core Plus). We need to achieve a goal of 80% of all assessments being common. We have done that, but it is a stretch. The definition of remediation brings on a whole new level of complexity and time.

I know that my consultant students and most of my prealgebra students [lower level] will not be able to meet the MLR standards or MEAs. They work hard, they try, they just don't "get it."

183)

If we continue with the current process of meeting the Maine State Learning Results, we will soon be teaching to our local assessments, because we will have no time to cover anything else. The process of collaborating on and establishing the reliability and validity of our local assessments is taking up too much of my teaching time. I can remember that when I first started teaching about thirteen years ago, I actually taught my students. What happened to the good old days?

196a)**

In twenty-one years of teaching high school mathematics I have had 1 (one) talented math student become a math teacher at the secondary level. After four years, she is considering leaving. Why, do you suppose, our best and brightest no longer choose to become educators? Why is the average SAT score of the education major lower than that of the students in all the other colleges at the University of Maine?

What is valued by parents, performance in academics or performance in athletics?

The most important aspects of a student's learning are: #1, WHO is in the room with them as a teacher; and #2, WHO are the other students?

What are we doing to ensure that teachers have a strong math background? What are we doing to ensure that order is maintained so that learning can occur?

200)**

As an experienced educator who has spent a career teaching grades 2 through 12, I feel strongly that the current trends in assessments have only served to exacerbate the situation of education in Maine classrooms. The time factor alone negatively impacts learning.

If the money and resources now flowing into assessment programs could be spent on solving issues of truancy, drug and alcohol abuse, and parental indifference and irresponsibility, I believe we would see a phenomenal increase in student achievement. Leave assessment up to the instructor.

216) Donna R. Wells

I feel that the Maine Learning Results have decreased the knowledge that Maine students have in mathematics. Before the implementation, our students always scored highly on national tests.

Our teachers now devote much of their time to developing assessments and rubrics, evaluating and documenting, rather than assisting students in mathematics.

The standardized tests are now changed so often that the results are useless to us! I wonder who is gaining? Our students are not winning ... someone must be making money for this to continue!

Add these requirements to the laptops and WOW!

221)

I feel we are wasting time with these assessments and weakening our program.

Our students are all required to complete four years (credits) of mathematics - starting with Algebra I. Most complete Algebra I, Geometry, Algebra II and Precalculus. Many take AP Calculus (both

AB and BC) and Statistics. The Maine Learning Results are not improving our curriculum, but weakening it.

237) Mark A. Ouellette

An evaluation should not be used to determine success, but which areas need additional coverage. A standards based diploma should be engineered on a 4.5" by 1000 sheet roll so that it will have future use. We have been removing hydro dams in Maine rivers so fish can return "to the way it was" but we keep putting in Education Dams so we may have "quicker" progress.

III. Comments that seem to address the Learning Results structure.

7) Kathleen M. Welch

Maine Learning Results need to be adapted to meet the needs of every students. Many of the mathematics standards are unreasonable, unattainable and unreliable.

8)

MLR were sold as minimum standards. I would like to see three-quarters of the legislature try to do them!

Performance Indicators were sold as examples of what each standard meant. Now, we spend hours designing assessments (usually tests for lack of increased resources) around these indicators. We're not allowed to simply use the content standards summaries (pp. 39-40 MLR) in designing our assessments ... "not specific enough" we're told.

I am in favor of a state exam such as N.Y.'s Regents Exams. This way, classroom teachers become the ally, not the adversary.

9) Karla Rutherford

I would ask how many of the governing body could explain what complex numbers mean and describe some of their many uses, explain operations with number systems other than base ten, use linear programming to find optimal solutions to a system, or use networks to find solutions to problems. And I would ask why these ideas are necessary for all Maine students.

I also question how you can only hold high schools accountable by not graduating students with a diploma when students are passed grade to grade, K through 8, not always meeting the Learning Results.

Use of the MAP and LAD in the LAS does not make sense when students have access to the website!

17)** Bea Simon

To make effective assessments, all teachers would need to teach from the same text and use the same language. The Maine Learning Results do not always indicate skills necessary to become a successful adult. You are all successful people. How many of you know:

A) the use and application of complex numbers;
B) how to explain operations in systems other than base ten;
C) standard deviation;
D) the probability of compound events; or
E) (my favorite) linear programming?

21) Allison Willard

We need to look at the number of performance indicators that students are being asked to master. There are too many! There need to be some way of making sure students of all levels receive what they need to succeed, not just the top 25%.

32) Tammy Hilchey

I would rather spend my time working with my students than working on MLRs. My students will benefit more from my time with them, helping them learn and understand concepts presented to them.

34)

The standards and indicators in the mathematics portion of the MLR need to be revised and recreated by a mathematics committee familiar with secondary teaching of mathematics. The current MLR math standards are not attainable by "all" students. Common assessments of the standards need to be developed and shared among Maine schools.

35a)

MLR – Too much material - once they are done, they will be too bulky to use. We should be creating a working document - one that is easily referred to and user friendly. We have thrown students out in the middle of the ocean without a boat. That is, we didn't allow this to grow from the bottom up - 1st grade through 12th - we started wherever they were - grade 7 or grade 11 or wherever.

71)

The Maine Learning Results need to be updated & refined in math to eliminate redundancy and to focus on necessary learning.

93) Robert B. McKenzie

The Math Learning Results and the MEAs are bad ideas whose time has past.

100)

I found that the Learning Results forced schools to look at what was being emphasized in their math courses. Without this "boot in the butt" we'd still be teaching 1960s topics (some of which are still taught). There were some Indicators that were over and above most high school students (complex numbers). Revising the Learning Results into Clusters has taken away some of the specific Performance Indicators.

The Learning Results should be a base set of expectations for math students in Maine. It is up to high schools to select the curriculum to extend into topics appropriate to specific classes.

111)

The Math Learning Results are too vague and emphasize the wrong skills. They are very weak in some areas, especially geometry.

132)

There are too many performance indicators. Teachers are spending too much time giving and grading local assessments. The performance indicators are unrealistic goals for special education students and a good number of general education students. Too much money is being spent in the implementation of the Local Assessment System.

141)

Make sure that the body of educators revising the math Learning Results is truly a cross section of the levels taught throughout the state. There needs to be a series of strategies of how to move students up the continuum of learning to meet the requirements.

167) Andrew Myers

The Maine State Learning Results are a good goal for a school to have all their students to know, but are unattainable by all. For a high school graduate to be a productive citizen, the results need to be changed to meet the needs of a student who goes no further in their education. To use the current Learning Results for graduation requirements is not a realistic goal. So the state has decided to make clusters and a 67% achievement in each cluster. To me this is an acknowledgment that the goals are too high and that this is a way to make them achievable. This causes great variation in what some students learn compared to others. The objective of the goals was to have everyone with the same knowledge. Solution: change the goals so they are achievable by all.

188)

The Learning Results and the NCLB, while well-meaning, are big failures. Too much wasted money and time to achieve an unattainable goal. It might turn out to be the single biggest mistake in the last fifty years of Maine history.

193)

Exit exams in the state of Maine, across the board for all students.

MLR will not work for lower level students; the hopes are unrealistic! Unless we can rework the wires in the brain we are setting up some students for failure.

198)

The MLRs should accommodate different ability levels of students. If a student's future does not include higher order thinking skills, they should not be required in order to graduate.

201)

I believe that most of the state standards are good, though I think the NCTM standards are more explicit.

Standards, in my opinion, are not the real issue. The real issue is adequate resources to address the needs of those students who are currently not meeting standards or grade-level expectations.

Math departments do not have adequate time for professional development.

208) Spike Herrick

In my approximately thirty years of teaching, nothing has pissed me off more than MLR! If I have to give standards for ALL students to meet in math, I'm not sure that single digit addition is something I would be willing to bet my house on.

How about this question ... "Betty can make 75% of her free throws. What is the probability that she will make three of her next five?" I'll bet that only two thirds of all math teachers can do that one, but it has been listed as a sample question for ALL students.

I totally support standards! How about standards for courses? "All Most students in Algebra II will be able to ..."

215)

The stated secondary Math Learning Results often seem unreasonable and set up the high school students for failure. Some are unreasonable and certainly do not take into consideration the content of a common high school curriculum geared to the average student.

226)

I have taught at several different schools in several different states on the east coast. Each state, other than Maine, has had, at a minimum, an understandable set of mathematical standards for high school students. Maine's Learning Results are too vague. Students, parents, teachers and administrators need clear, concrete guidelines as to the expectations for student performance. I also suggest state subject matter tests to be given at the end of each school year so that the standards are consistently assessed throughout the state.

229a) Audrey Carter

Revise the Learning Results in a systematic way to reflect what is truly important. Do one area at a time; make modifications, not radical changes. [I.e. add or subtract a few performance indicators.]

Slow down expectations on common assessments. Schools are not ready and resentment is great among many professional educators.

Provide exceptions or alternatives to common assessments for students with limited ability. (Some of our kids would do well to meet the 5 - 8 Learning Results.)

231)

The Maine Math Learning Results need revision. They are an all-encompassing list of skills which are "a mile wide" and allow math teachers to teach only "an inch thick." The NCTM and other math leaders are calling for standards revision in order to address our falling status in international comparisons. Post-secondary educators and institutions are also seeing students ill-prepared for the rigor of post-secondary work. Local employers complain that students cannot think for themselves or apply math skills to new situations.

IV. Comments that seem to address the Local Assessment component.

12)

I'm frustrated with the local assessments and how much time it is taking away from my students. Instead of double scoring these, which in some cases takes hours of my time, I should be making good lesson plans.

This is a cookie cutter approach to education and it doesn't take a brain surgeon to realize that not everyone can achieve the same level at the same rate. I've never heard anything so crazy.

The teachers are stressed out and I know we will lose many great teachers before their time because of local assessments.

The kids are stressed out because they are scared of not graduating. Some will become so discouraged that they will drop out. These are kids who may struggle academically but would succeed with the right encouragement NOT these assessments that make them feel stupid.

14)**

The intent of the MLR and LAS system is good. The process is overwhelming. Managing the testing and correcting process is very time consuming for both students and teachers. The feedback is not timely and the replacement options are unclear. The students are learning to become test takers and are losing classroom time. These standards are not enough for students to be ready for post-secondary education.

Math teachers are being asked to do impossible tasks because of the state testing mandates. Worse yet, students are not necessarily becoming better at math ... they focus on how to answer questions for a 1, 2, 3 or 4 and not how to apply what they have learned.

96)

Local assessments are too massive a task for a Maine district. I believe they should be state-designed with lots of local input. When we have designed our own assessment and grading system, we have left large gaps and created poor assessments.

109)

Stop messing with the criteria. It is extremely frustrating to prepare assessments based on guidelines given to us at one moment, then find we need to change them at the next moment when the criteria change. These actions are undermining the work and morale of teachers.

127)

The Local Assessment System will not succeed. The record keeping is a nightmare! The creation of appropriate assessments, remediation, record keeping and NCLB failing school ratings are all working to break the spirits of even your best, most enthusiastic teachers.

152)**

We have devoted an incredible amount of time and energy developing and then rewriting assessment pieces to "fit" the directive of the moment. There has been no communication amongst districts. What we deem important might be secondary somewhere else.

If the "state" is going to mandate what we teach and evaluate our "teaching" through the MEAs then be up front: mandate the curriculum and the assessments for the entire state. The facade of local authority is ridiculous – and unfair to students and educators.

176)

The Maine Learning Results are a giant headache. The logistics of the assessments is mind-boggling. A student meeting the standard in one school does not mean he or she would at another school. Assessments need to be watered down if all students are to meet them. They are a big waste of time for top level kids. Why not have an exit exam - it would be a heck of a lot easier.

Our department is consumed by the MLR. We talk about it constantly and argue about it even more. I could go on and on ...

177)**

One of the problems of the math standards in the MLR is that they are open to a variety of interpretations. Schools differ in how high to set the bar in interpreting the Performance Indicators. Thus, in order to have common assessments for all students, the interpretation must be the minimum content that is still true to the PI. In our school, this set of common assessments has no impact on the top 25%, some impact on the middle 50%, and a huge impact on the bottom 25%.

I think that requiring more mathematics from the lower 25% is a necessity in this day and age. However, requiring all the topics outlined in the MLRs is intellectually out of reach for some of these students. I anticipate that more of these kids will drop out of school due to frustration when we really should be providing them with a good set of practical skills that they will need in their work worlds.

185)

The concept of having standards is good. The problem is that the implementation of the LAS requires so much staff and student time that the minimum skills of the Learning Results could become the only focus of instruction.

196b)
What a boondoggle! Every school is developing a test or set of tests for all students to take. A few years ago, standardized exams were written by professionals. Now, somehow, we are all qualified to do this – and for high stakes!

207)

I think the MEA testing of juniors has been adequately tested, revised and aligned to the Maine Learning Results. I think this test should be used to determine if a student has met the MLR. Locally developed LAS vary so much from school to school that, by their design, they lack the standardization that the MEA testing provides.

210)

We have been mandated to give the assessments, yet when are we supposed to grade them? "Number line" took more than ten hours to grade/score. It involved me missing class time to get these done. So, my students miss out on educational opportunities when I am out of the classroom - ridiculous!

211) Robert B. Thomas

Mr. Jeffrey Shedd said it all in his article on local assessment, Boondoggle. It should be clear that Local Assessment will go the way of "Modern Math" os the 1960's and steam power cars. There are a lot of people who have a vested interest in prolonging the pain for as long as possible, but it will surely die and the sooner the better for those of us who are trying to educate, not pad our resumés or win a grant.

220) Norman R. Dubois

Giving the MEA tests during March is enough "time out" from class. Preparing, giving and correcting MAPs and LADs is taking too much time from teaching. Add to that the recording, file-keeping, and retesting, and all we have is more work. Students and teachers deserve better. I think tests could be developed that not only reflected performance indicators but followed the books (curriculum) that we use. This might even ease our load instead of adding to it. Testing is important, but be realistic!

224b)

As far as the Maine Learning Results go, I think it is a ridiculous waste of resources to have every school in Maine coming up with their own assessments. First of all, it is a gross duplication of efforts, and secondly, since you can't test every performance indicator, what one school thinks is important to test may not be what another school thinks is important. There is no true standardization. According to my school, a student may be prepared, but if we test him on a neighboring school's performance indicators, my student may not be prepared.

227) Jay Audet

I believe that many schools are not properly implementing the Local Assessment System in their respective schools. If you accept the premise that all students can learn and show success in a challenging curriculum, as well as that anyone can hit every target that has been set and holds true for them, the Maine State Learning Results are attainable by all students in our state. The key is providing access to a challenging curriculum for all students. Common assessments should be just that: common. With multiple tracks in place in numerous Maine schools, it becomes challenging, if not impossible, to measure student progress towards attainment of the Learning Results with common assessments.

229b) Audrey Carter

Slow down expectations on common assessments. Schools are not ready and resentment is great among many professional educators. Provide exceptions or alternatives to common assessments for students with limited ability. (Some of our kids would do well to meet the 5 - 8 Learning Results.)

V. Comments that seem to address the MEA test.

13)

The MEA tests were never intended to be used as high stakes tests. The test should reflect the purpose it is used for. A different test should be developed that would reflect national testing. (Example - student scores 800 on SAT but does not exceed the standard on the MEA.) Maybe the legislators should take the 11th grade MEA and see how they do!

35b)

MEAs – The standard keeps changing, so even if a school is making progress and their scores are higher, they may be further away from the average. Keep the average the same for a few years. Use the MEA results to help us change curriculum rather than to rate schools. Put out information saying if the schools scores have increased or decreased from year to year, rather than compare schools in a statewide ranking.

39)

The standards are too vague in parts and too vast. Teaching from textbooks that don't match the Learning Results is difficult. We need to decide to teach to the Learning Results or to the test or by the textbook. The MEAs need to match what is taught and required at Maine schools. Some seniors take Algebra II their senior year at Wiscasset – after taking the MEAs. The MEAs don't accurately reflect the math knowledge our students leave high school with. The questions on the MEAs are worded poorly and some are downright confusing. The questions need to be standardized like those on the SAT to be fair.

63)

Students' innate mathematical abilities vary widely. The MEAs are beyond the capacity of a large segment of the student population regardless of how we go about teaching the material.

79)

I like the standards, but I do not agree with the extent to which students need to be able to demonstrate the standards. Assessments seem too rigorous for just a score of "meet" the standards. MEAs seem to be made to test the top 25%.

102)

The MEA math exam may align itself with the Learning Results, but the exam is way too difficult, way too inconsistent, and does not represent the math knowledge students really do know.

172)

Drop the MEA and MLR. They are a waste of time and money.

203)

Performance on one assessment is not the best method to show that students are learning. The legislators and school board members should return to the classroom and then decide on policy based on the "real classes of today."

A Personal Note and Thanks

In the Fall of 2002, I filled out a survey for the Task Force to Review the Status of Implementation of the System of Learning Results. One question seemed to me appropriate:

Do you agree or disagree that
the Learning Results are a realistic goal for ALL students in my school?

"How useful!" I thought. "They're finally asking a good question." But the rest of the survey had no pathway of questions for the participant who said "disagree." The rest of the questions had the feeling, "So then, on this task that may or may not be realistic, how's it going?"

There was, for example, a list of possible obstacles to the implementation of the Learning Results for respondents to choose from, but there was not one that said: "It is not realistic to implement the Learning Results." All of the suggested obstacles had to do with funding or staff resistance or time constraints or lack of support from the community.

I wrote a note to the University of Maine team that was compiling the findings and pointed out the slant in the instrument, but I got no response. I waited impatiently, but I never saw the report hit the headlines. After a year, I called the Department of Education and asked for a copy. There it was in black and white: nearly ten years into this endeavor:

24.3% of all teachers said they agreed	64.1% said they disagreed
30.0% of principals said yes they agreed	49.5% said they disagreed
36.9% of superintendents said they agreed	42.7% said they disagreed
42.7% of school board chairs said they agreed	36.6% said they disagreed

There's something to be said for the observation that the farther one is from the classroom, the rosier the picture seems. But put that aside. A decade into the Learning Results initiative, a wide majority of teachers, and a plurality of principals and superintendents believed we are attempting something that is unrealistic.

[There is one further detail about the reported figures: the use of the term "agree" in this report was somewhat deceptive. In the questionnaire there were two options for the respondent: "Strongly Agree" and simply "Agree." Presumably, one would choose the weaker term with some sense of reservation. But when the report was released, the two categories were collapsed and labeled "Agree." The casual reader, a legislator for example, could be forgiven for interpreting "Agree" as if it meant "I agree."]

I waited for some public sentiment to surface, some groundswell that all this money and all this time and all this hype were being expended on an endeavor that the professionals felt was unrealistic. But the crosscurrents of education reform are sweeping chaotically hither and yon. No one noticed that the people charged with this task felt it unrealistic.

A math teacher for many years, I decided that I could narrow my focus and ask Maine's high school math teachers what they thought of Maine's High School Math Learning Results. Then, I thought, we would at least be talking about the same thing.

In the Fall of 2004, I began this process. I spent many hours working and reworking the draft of the questions with a great deal of help from my colleague, Brian Jones. In the late fall, I sent out twenty pilot surveys, two to each of ten schools in the general vicinity. I received seventeen back, and in the light of the comments, I made some changes in the questionnaire.

I had sent a letter to the Department of Education asking for help obtaining the school addresses of all the math teachers in Maine. I didn't get a response, so fearing the worst, I called. The letter hadn't ever surfaced, but I was immediately put in touch with someone who had access to the information and offered to print the labels for a standard, nominal fee.

After endless minor revisions, I had the cover letter and questionnaires photocopied and spent an inordinate amount of time stuffing and sealing and stamping and labeling. On a Saturday at the end of January I dropped off around 120 packages at the Wayne Post Office along with a blank check (a testimonial to small town Maine).

Three surveys were returned by Tuesday, and a classic sigmoid curve began taking shape. After two weeks I sent out a nudge via the Maine Math List Serve. Three additional schools assured me that the Learning Results applied to them and asked to be included. The Adult Education team opted out, but the two semi-independent schools participated at just about the same rate as the public school teachers: just over a third of the teachers replied.

David Bowie, my former department chairman in Lewiston, set up the database to ease the counting and to make asking additional questions easy. My family has put up with the idea, the cost, the stuffing, the postage, the roller coaster of "Twenty five today, Dad!" and the invisible partner and parent during the February break of compiling the results and the comments. It's not over yet, of course, but there's a pause.

What do the math teachers and the Department of Education do next? It's a good question. I do hope the report doesn't sit on the shelf.

Jim Perkins
March 17, 2005