

Middle School Math Program Curriculum Review

Andover School Committee
Presentation

June 9, 2009

Curriculum Review Agenda

- Participants
- Review of Documents
 - Alignment of CMP with Benchmarks--handout
- M. S. math programs in other districts
- Math MCAS Data
 - Andover, Marblehead, Wellesley, Westford
- Professional Development
- Collegial Conversations
- Guiding Questions
- Recommendations

Program Review Participants

- Math Curriculum Council
 - Amy Brady, Clare Ciampa, Dolores Cusack, William Drummond, Susan Haltmaier, Maryellen Iannibelli, Deb Downes, Darrell Keene, David Lawrence, Donna Sunderland, and Minda Reidy, Susan M. Nicholson, Donna Pappalardo
- Middle School Math Teachers
 - Darrell Keene, Ann Levinson, Deb Frelich, Kelly McDonald, Helen Coleman, Ginny Rossini, Dolores Cusack, Elizabeth Tyrell, Laurie Hodge, Wendy Kudda, Dolores Mainza, Audrey Moreland, Scott Govoni, David Lawrence, Donna Sunderland, Dene Kouletsis, Laura Stella, and Amy Brady
- Middle School Special Education Teachers
 - Carol Weldin, Betty Singleton, Christine Hill, Sally Mandelbaum, Marian Knight, Gordon Goyette, Cherilyn Barry, Cathy Anderson, Jane Baldwin, Merry Petersen, Barbara Murray, and Steve Bessette

CMP Review

Grades 7 & 8

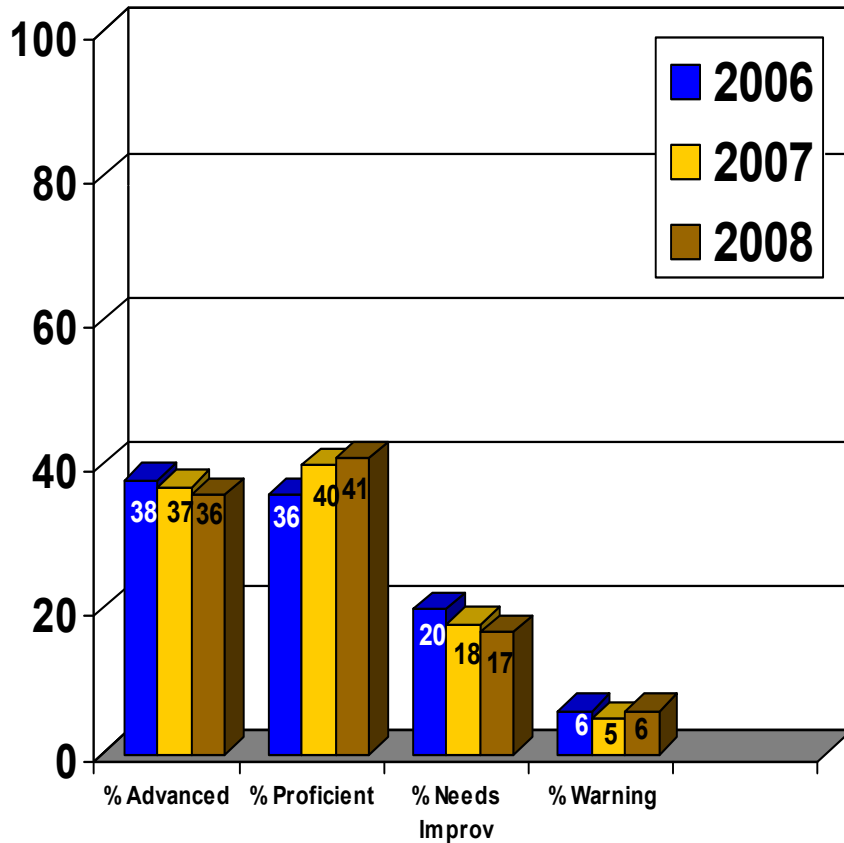
- Reviewed the current MA Curriculum Frameworks and Andover School District benchmarks to determine alignment
- Adopted the Grades 7 & 8 MA Curriculum Frameworks as the Andover benchmarks
- Include the Algebra 1 MA Curriculum Learning Standards (as appropriate) to our Andover benchmarks in Grades 7 & 8
- Aligned Grades 7 & 8 CMP to frameworks /benchmarks

M. S. Math/Other Districts

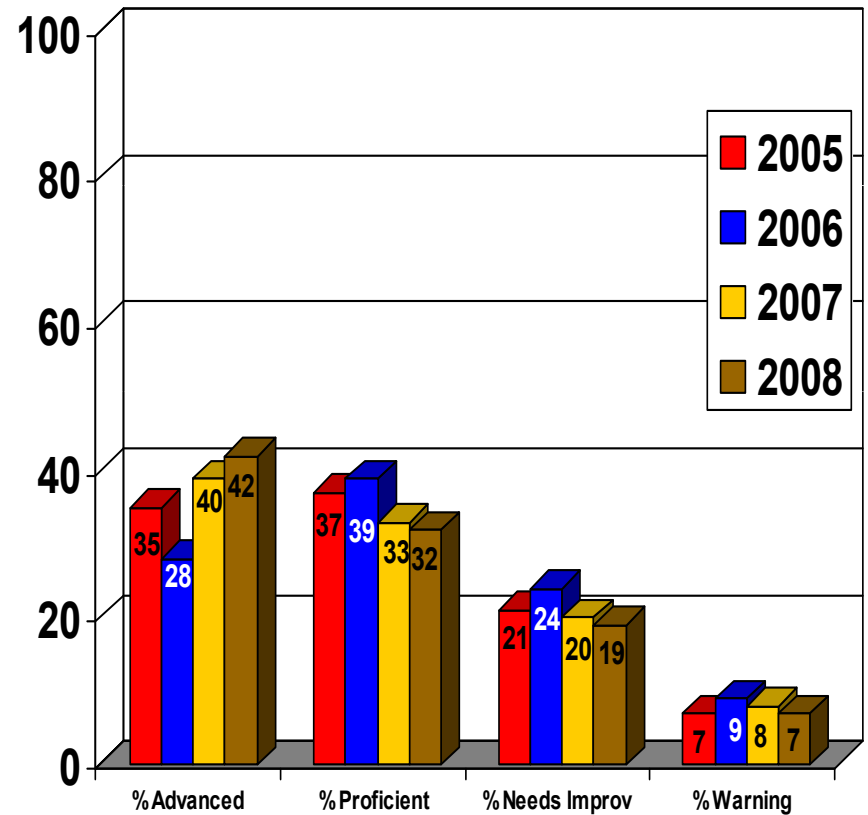
District	7 th Gr. Pr	Years	8 th Gr. Pr	Years
Belmont	PrenHall	7+	PH Alg1	7+
Brookline	Mathscape	12-13	McDoug/Littel Algebra 1	12-13
Hingham	Holt	new	Holt PreAlg Honors-B/D	new
Marblehead	CMP	7	CMP/hon/mid T dev.lower lv	6
Needham	Homegrown hotmath.com	Many yrs	McDoug/Littel Algebra 1	5
Newton S.	Impact	4	Impact	3
Wayland	McDoug/Littel Pre Algebra	3	McDoug/Littel Algebra 1	3
Wellesley	CMP	3	CMP	2
Westford	CMP	7	CMP	7

Andover MCAS Scores Math (CMP)

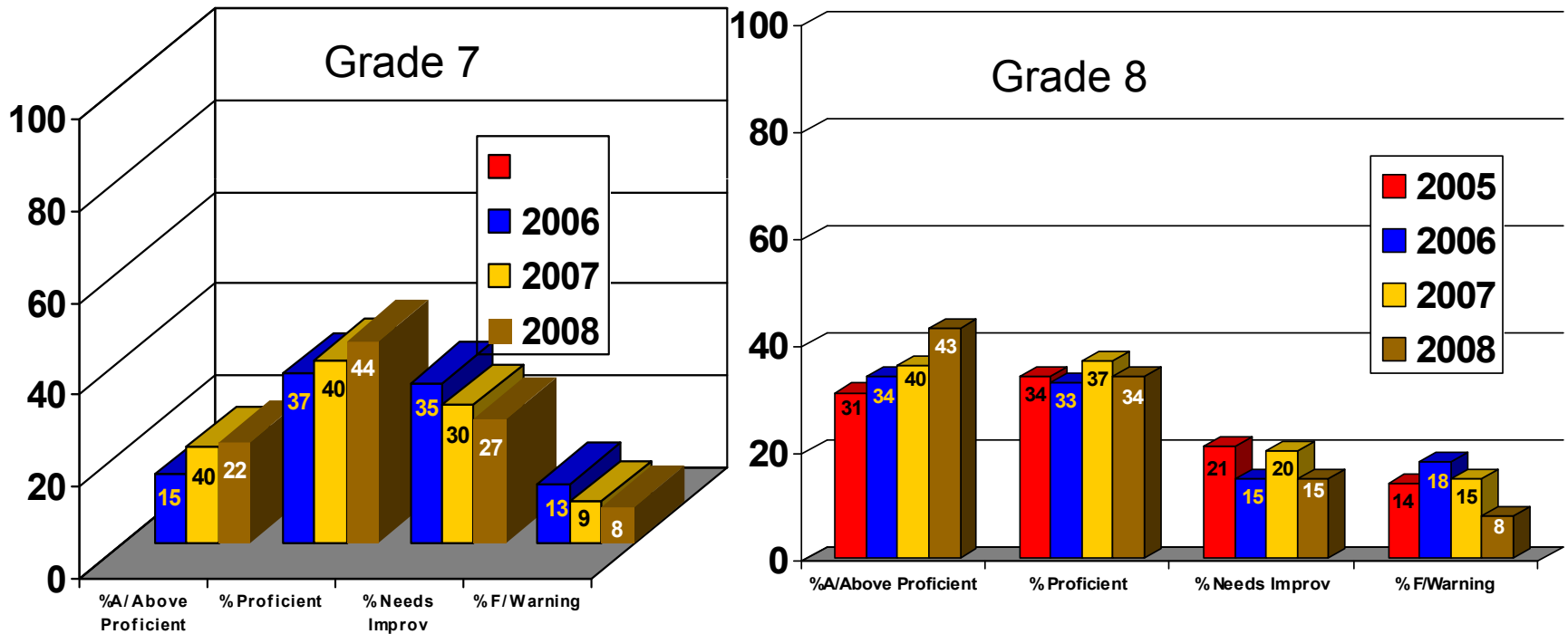
Grade 7



Grade 8

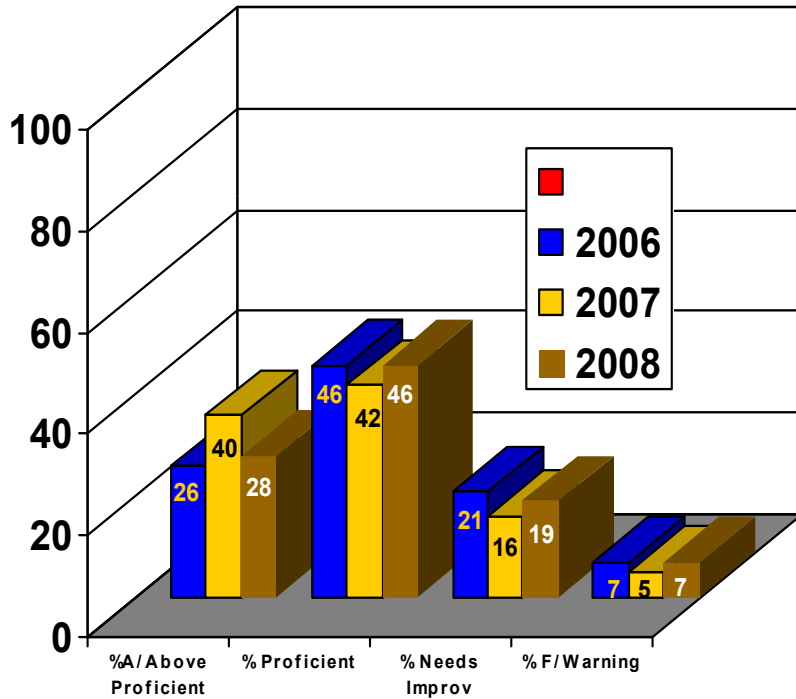


Marblehead MCAS Scores Math (CMP)

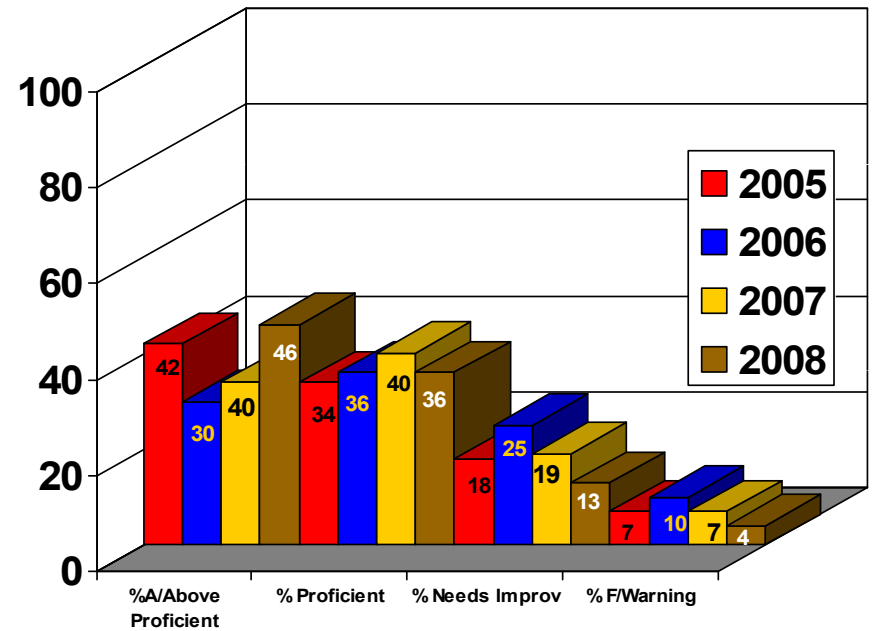


Wellesley MCAS Scores Math (CMP)

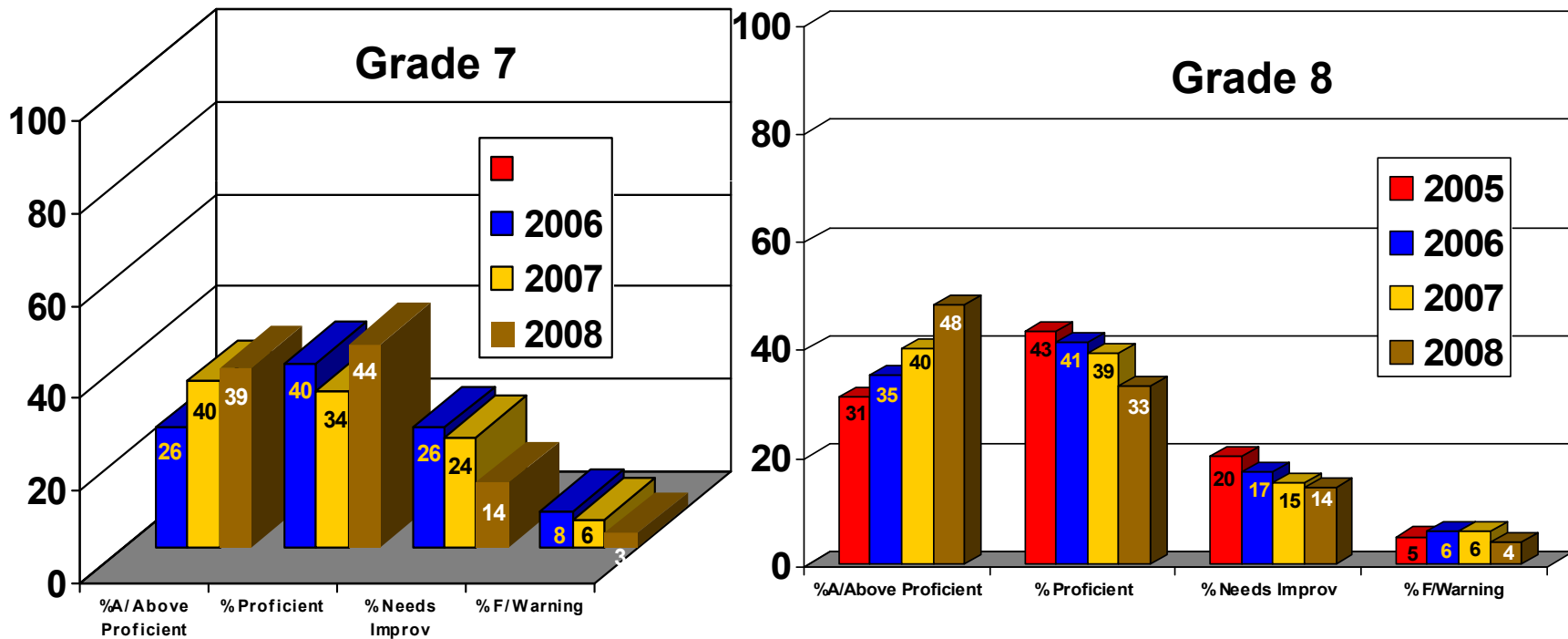
Grade 7



Grade 8

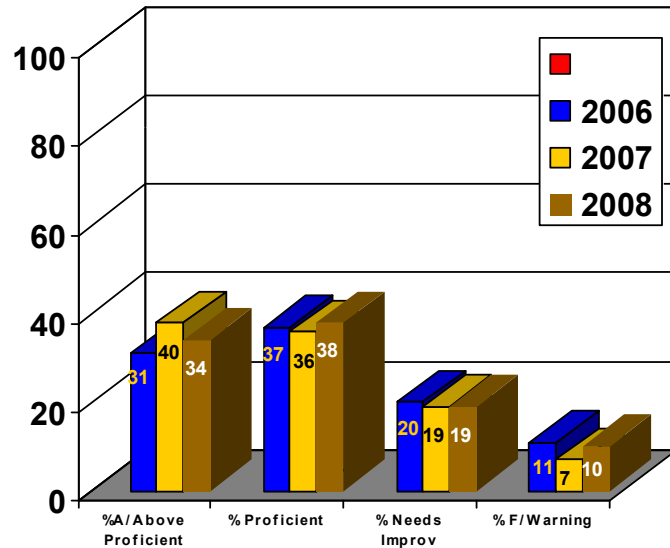


Westford MCAS Scores Math (CMP)

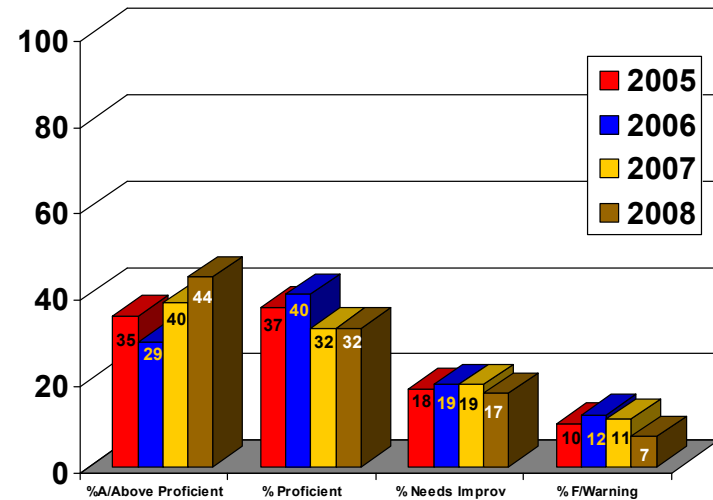


Brookline MCAS Scores Math (NOT CMP)

Grade 7



Grade 8



Professional Development

- CMP Training
 - New teacher training
- Differentiated Instruction
 - Teachers' 21workshops
 - Grades 7 & 8
- Teacher-led professional development
 - Grades 7 & 8 math & special ed. teachers DI units
 - New teachers observing their colleagues
 - Compact units, tier lessons, create resources
- Technology
 - M Drive . . . Common network drive
 - Website . . . Aps2.net . . . Teacher discussion, sharing
- Collaboration
 - Pre and post tests
 - Pacing Chart . . . Regularly scheduled meetings

CMP Review

Collegial Conversations

- Middle School Math Teachers
- Middle School Special Education Teachers
- Discussed three questions with teachers in order to determine how well CMP is addressing the needs of our special education population

Feedback/M.S. Math/Spec.Ed Teachers

- In what ways have you observed CMP as a successful tool in enabling special education students to access the benchmarks?
 - All students are exposed to the same content which encourages differentiation
 - Helps make abstract concepts more concrete and tangible
 - Language use stretches students' minds
 - Visual & hands-on activities are helpful
 - Group activities allow for bouncing ideas off other students
 - Inquiry based
 - Real world applications

Feedback/M.S. Math/Spec.Ed Teachers

- In what ways have you observed that there are limitations that CMP presents that can create roadblocks for our special education students to access the benchmarks?
 - Heavily language based
 - Not enough practice
 - Doesn't identify outcomes at the start
 - Difficult for students to see patterns without a lot of guidance
 - Assumes competency (no review of previously learned concepts)
 - Lack of examples--hard for students to start the problem, take notes, completing homework difficult, parents have difficulty helping with homework

Feedback/M.S. Math/Spec.Ed Teachers

- How do you think these limitations might be mitigated?
 - Continued coordination amongst all schools
 - Extra materials to support skill building
 - Teachers assist by providing supplementary materials
 - Flexibility to mitigate language

M. S. Teacher Responses

Guiding Questions

Is the present grade 7 and 8 math program addressing the needs of our student population?

- ***The teachers are in support of the following statement to the school committee:***
- **The CMP2 program aligns with the Andover Benchmarks within reasonable expectations for grades 7 and 8.**

The following was how teachers responded when presented with the statement:

The available resources that are provided with the CMP2 program for grades 7 and 8 are meeting the needs of a diverse student population.

- After looking at the data collected from the SPED teachers who teach in the math classroom, the math teachers felt that this statement is not entirely true. The teachers feel that in order to meet the needs of a diverse student population, additional resources that give students a better understanding of the procedural knowledge that relates to the concepts they are studying in class are needed to supplement the CMP2 program. Several books were recommended that would be helpful. Additionally, online resources for students, parents, and teachers will be investigated. We will continue to develop a list of these resources and make a recommendation to the Assistant Superintendent for possible purchase.

Teacher suggestions/recommendations.

Question from a teacher: *Are we saying this is the best available program for our students?*

- In an effort to provide the best program for our students the teachers would like to investigate other grade 7 and 8 programs to ensure that we have the best available program for our students. This work will continue next year through our Middle School Math meetings and the math curriculum council.