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SCHOOL COMMITTEE UPDATE: MATH INITIATIVES

INTRODUCTIONS

- Christina Astrove
- Danielle DeNufrio
- Eileen Gagnon
- Elsa Head
- Deb Holiday
- Dr. Jessica Huizenga
- Monica Leon
- Jayne Lynch
- Lisa Scolaro

MAKING CPS WORK FOR ALL BY INCREASING RIGOR AND SUPPORTING LEARNERS

- Math in Focus
- Accelerated Math Pathway
- Summer Program

MATH IN FOCUS

Increasing Rigor

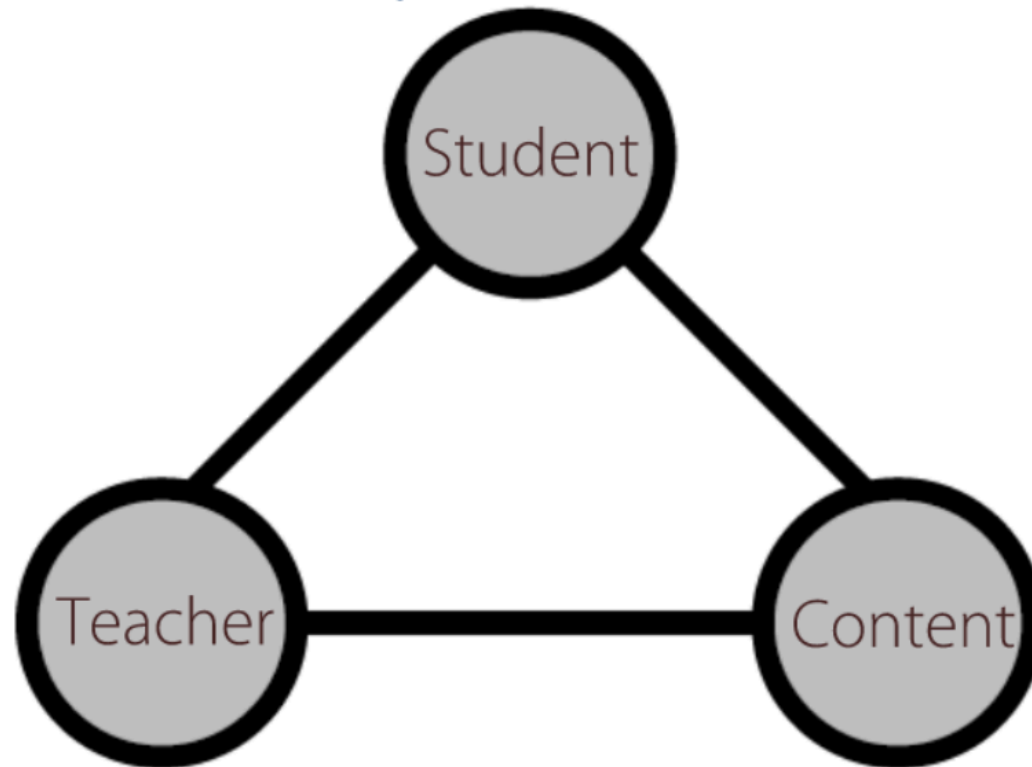
- Let's do some math 😊

CURRICULUM REVIEW CYCLE

- Phase 3: Implementation/Monitoring
 - Guided by the following questions:
 - Are we teaching the intended curriculum as it was designed?
 - Are we making progress towards our desired results?
 - Are students with disabilities accessing the curriculum successfully?
 - What is the instructional core? How do changes in curriculum materials affect the core?
 - What kinds of coaching do teachers need to implement the curriculum and improve instruction?
 - What “problems of practice” are emerging based on formative and summative assessment data?

MATH IN FOCUS AND THE INSTRUCTIONAL CORE

Elmore & City's "Instructional Core"






SY 2014-2015 IMPLEMENTATION

- All 1, 4, 5, 6-8 classrooms
- Six schools with full 2nd and 3rd grade implementation

⊕ **2014-2015 Math Implementation**

	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Amigos						
Baldwin						
Cambridgeport						
FMA						
G & P						
Haggerty						
K-Lo						
King Open						
M. L. King Jr.						
Morse						
Peabody						

-  = Math in Focus Implementation
-  = Math in Focus Pilot Classroom
-  = MKEA Assessment Implementation

- Professional Development:
 - Teachers
 - Administrators
- Transfer Tasks
 - Process
 - Next Steps

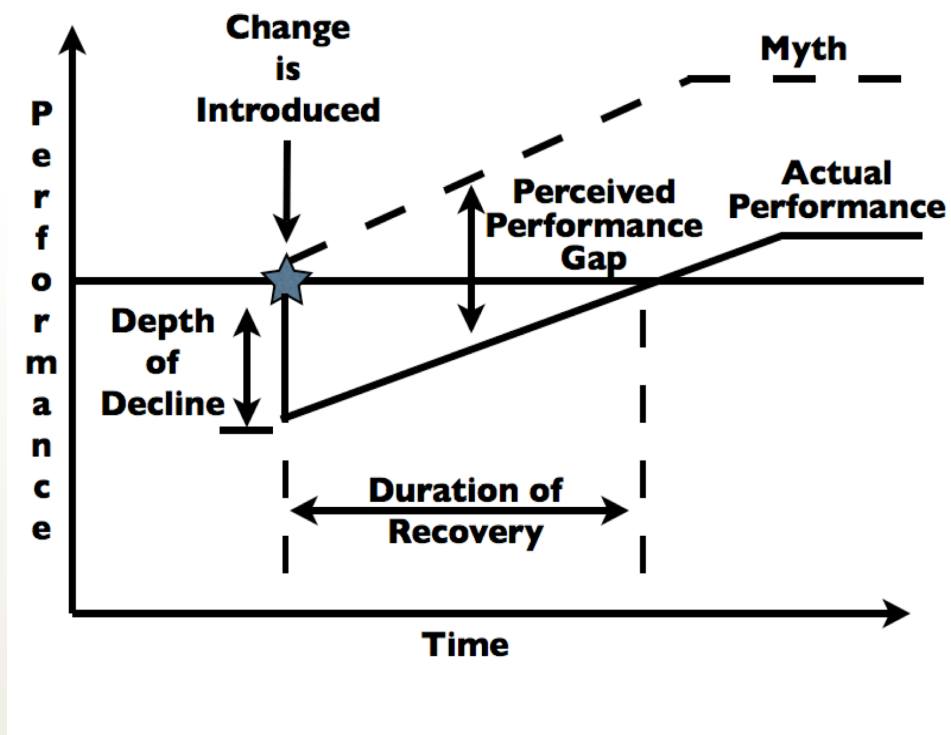
- The Pluses
 - Resources
 - Balance between conceptual and procedural
 - Professional development
 - Rigor and engagement
 - Attitudinal shifts

- The Challenges
 - Material Procurement
 - Backfilling
 - Adjusting to lesson structure

FROM THE PRACTITIONERS

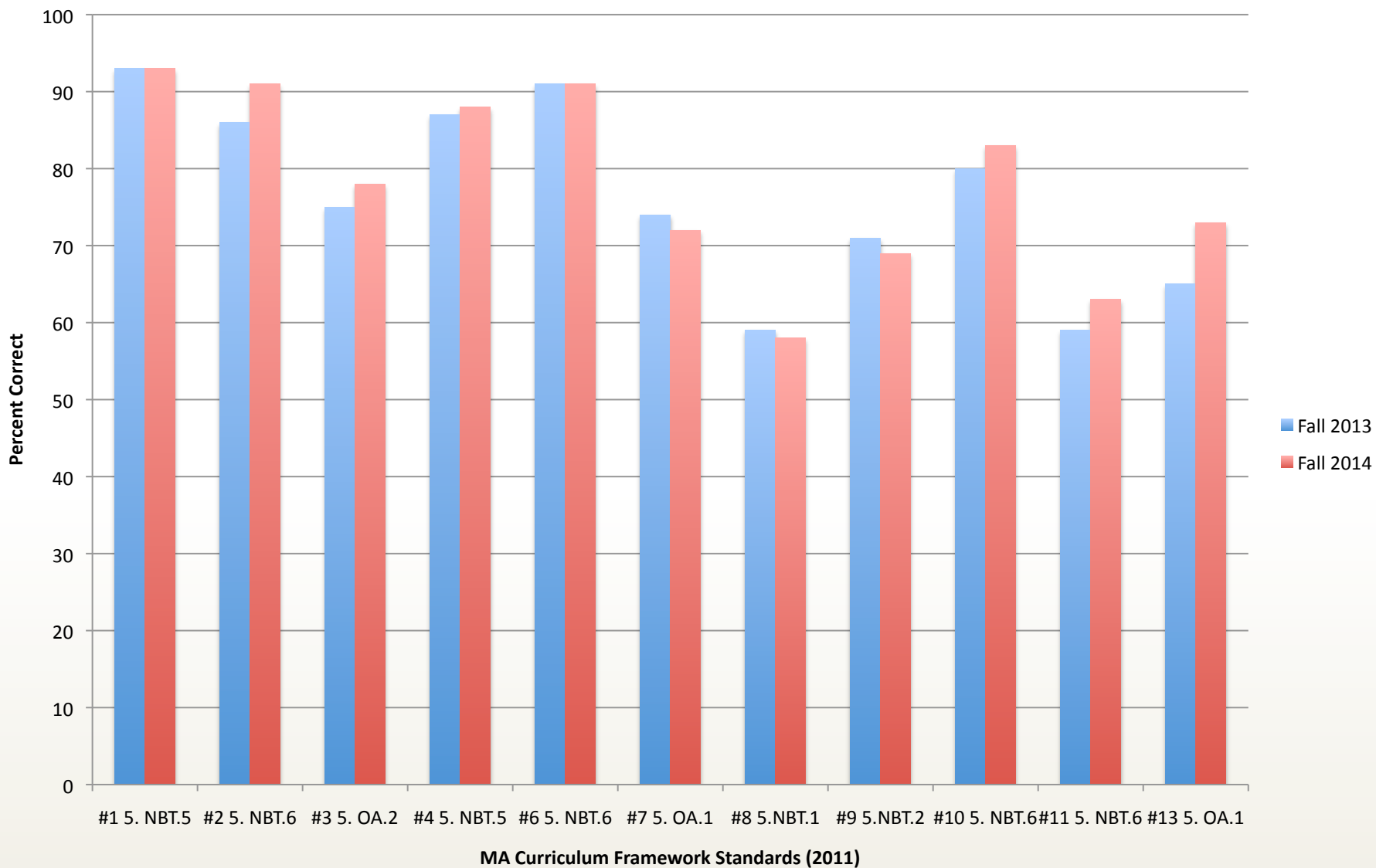
DATA ANALYSIS

- Our worry:

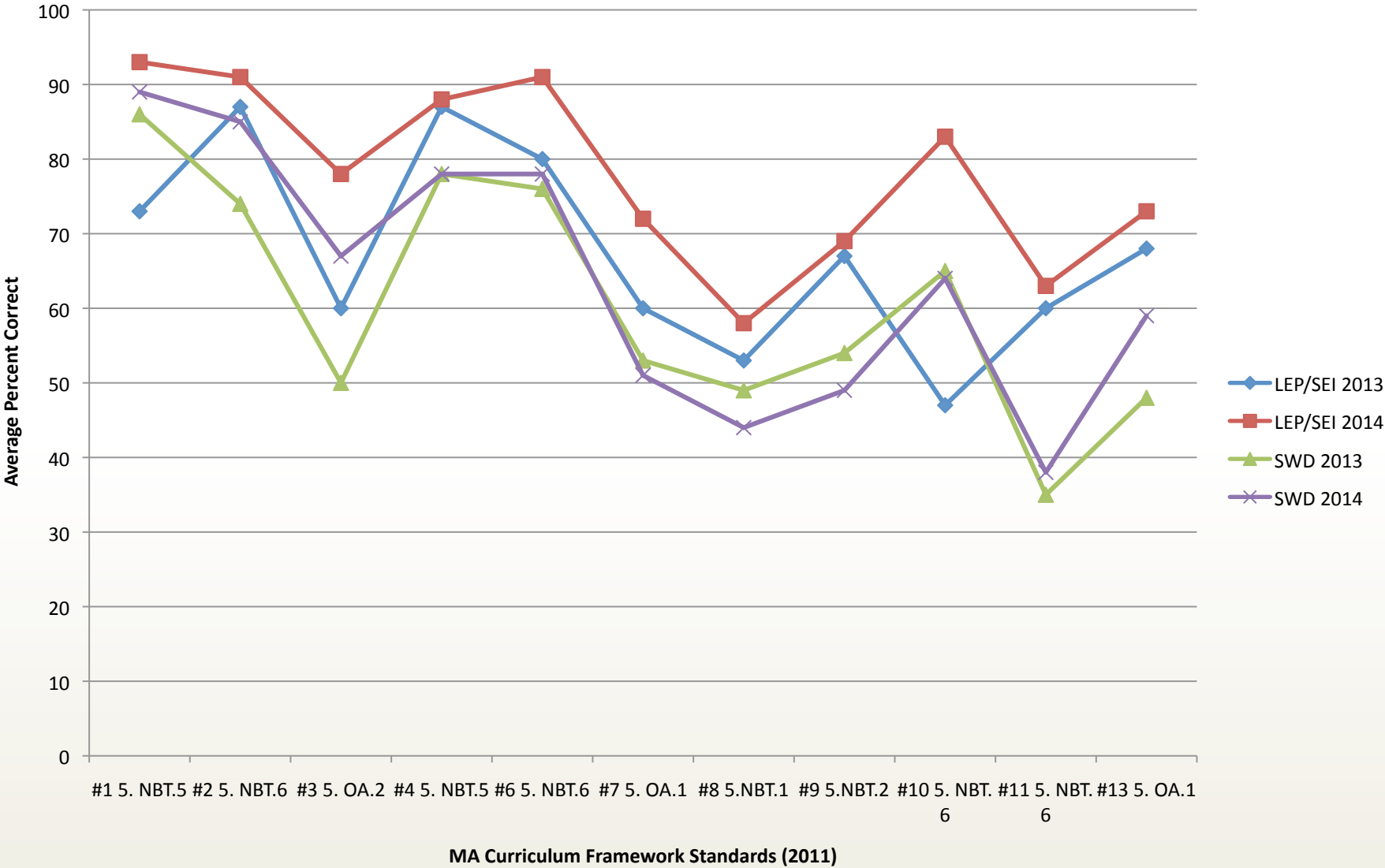


- Elementary District Assessment data shows:
 - No decrease in performance at grades 1 and 4
 - An increase on most questions at grade 5
 - English Language Learners outperforming as compared to Fall 2013 on Grade 4 and 5 District Assessment
 - Students with Disabilities outperforming as compared to Fall 2013 on Grade 4 District Assessment

Grade 5 District Assessment Data

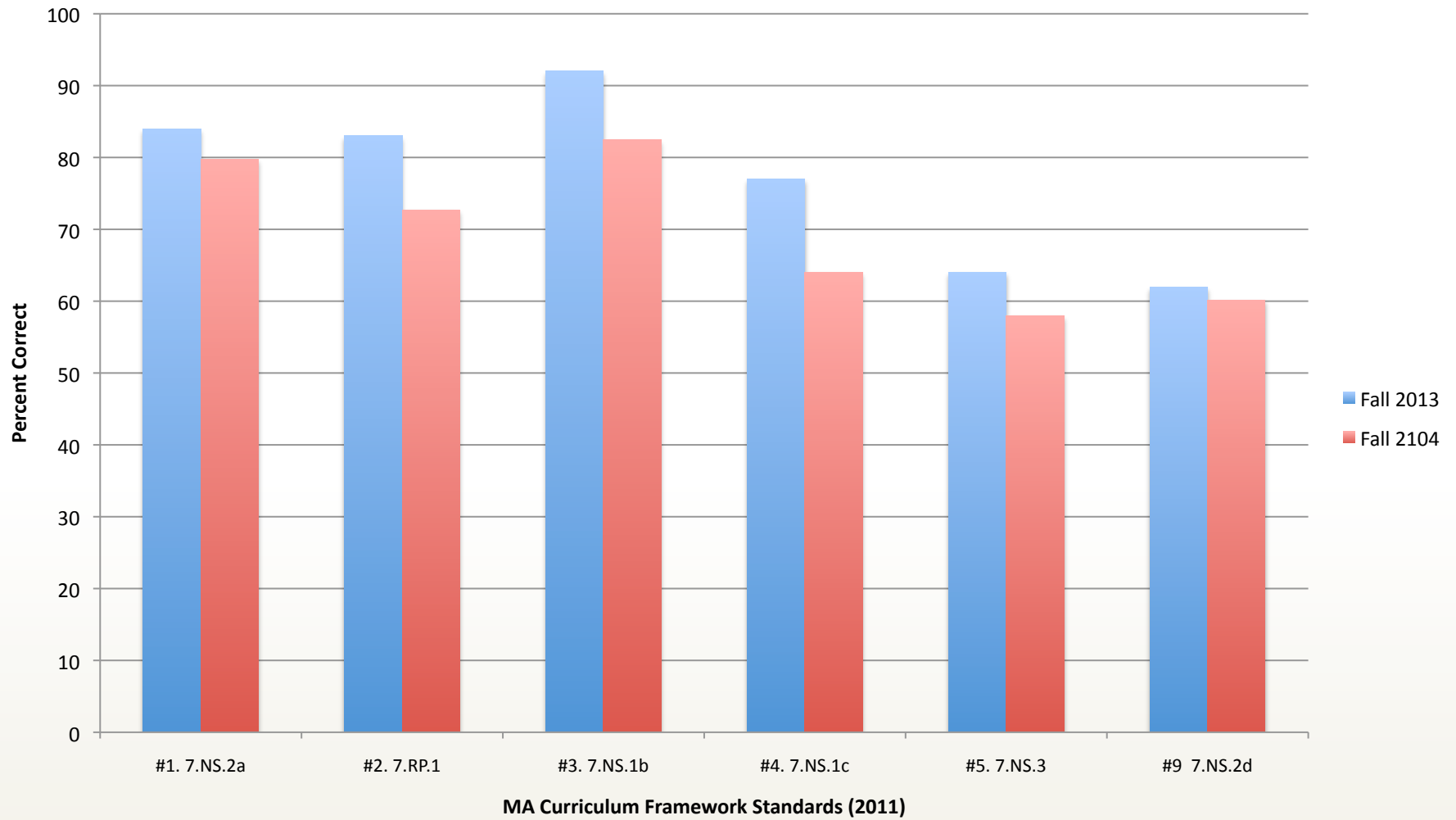


District Assessment Data - Grade 5

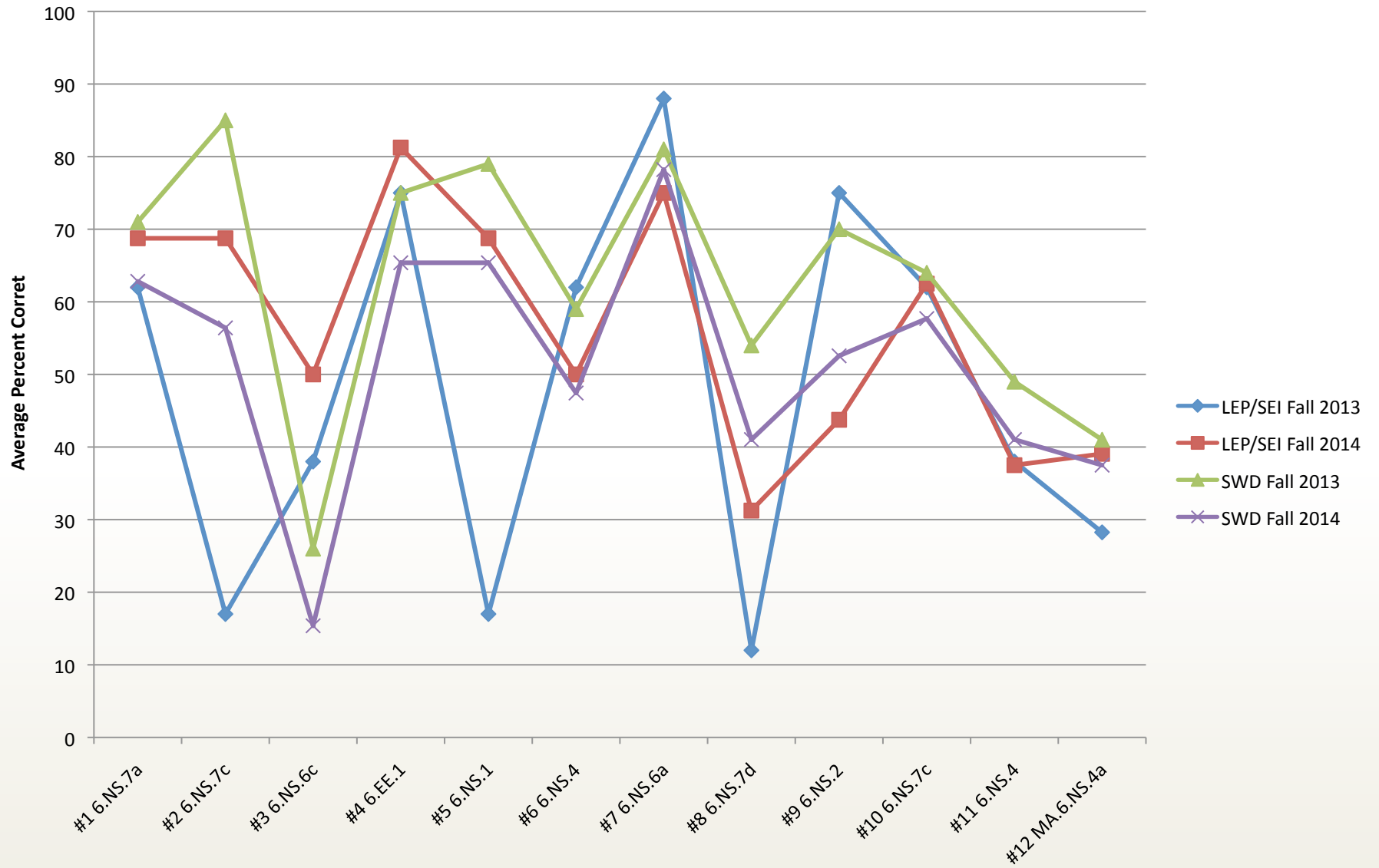


- Upper School District Assessment data shows:
 - Overall slight decrease at grades 6 and 7 for all students
 - An increase in performance for English Language Learners on most questions at grade 6 and 7
 - Performance gap between subgroups

Grade 7 District Assessment Data

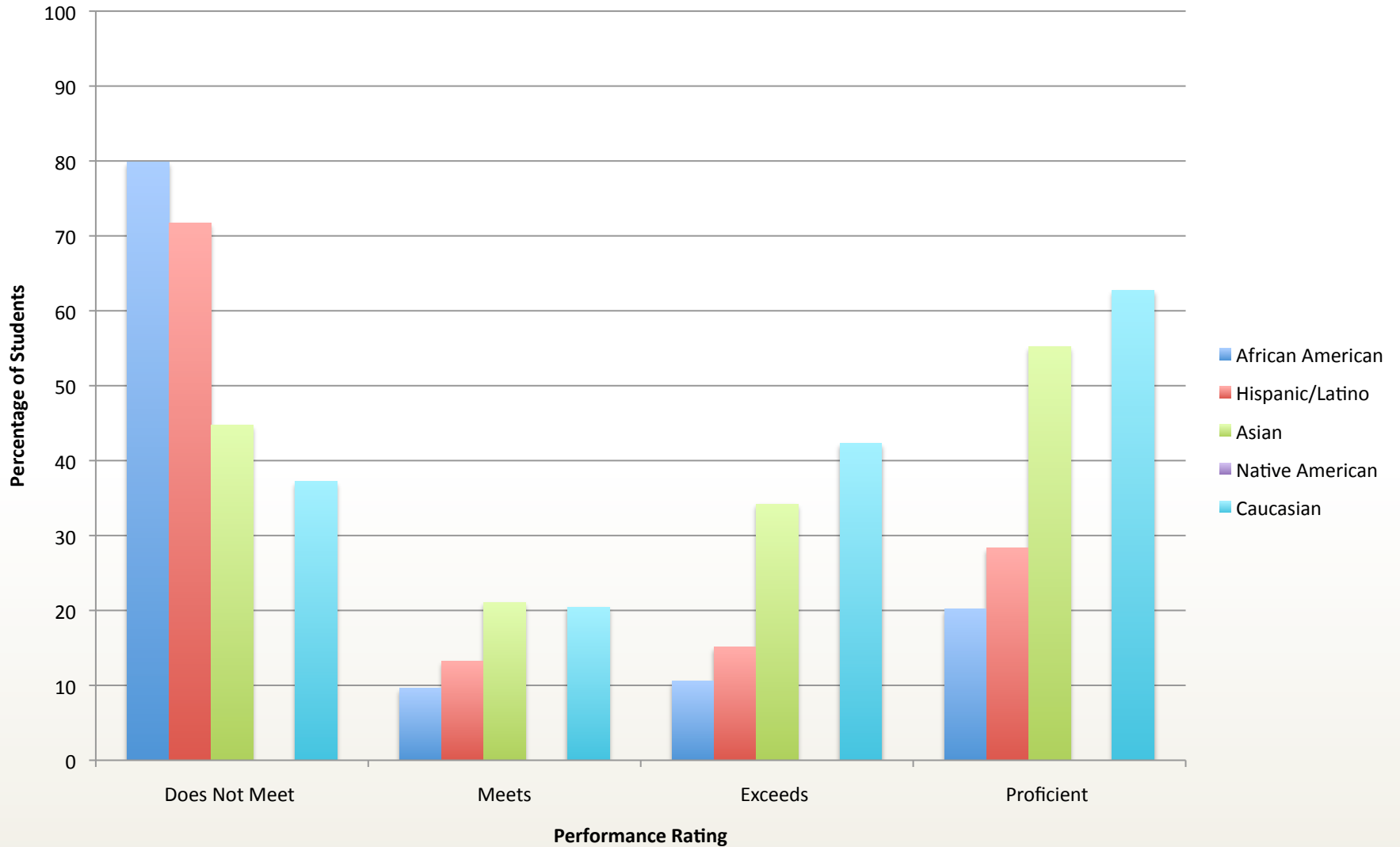


District Assessment Data - Grade 6



MA Curriculum Framework Standards (2011)

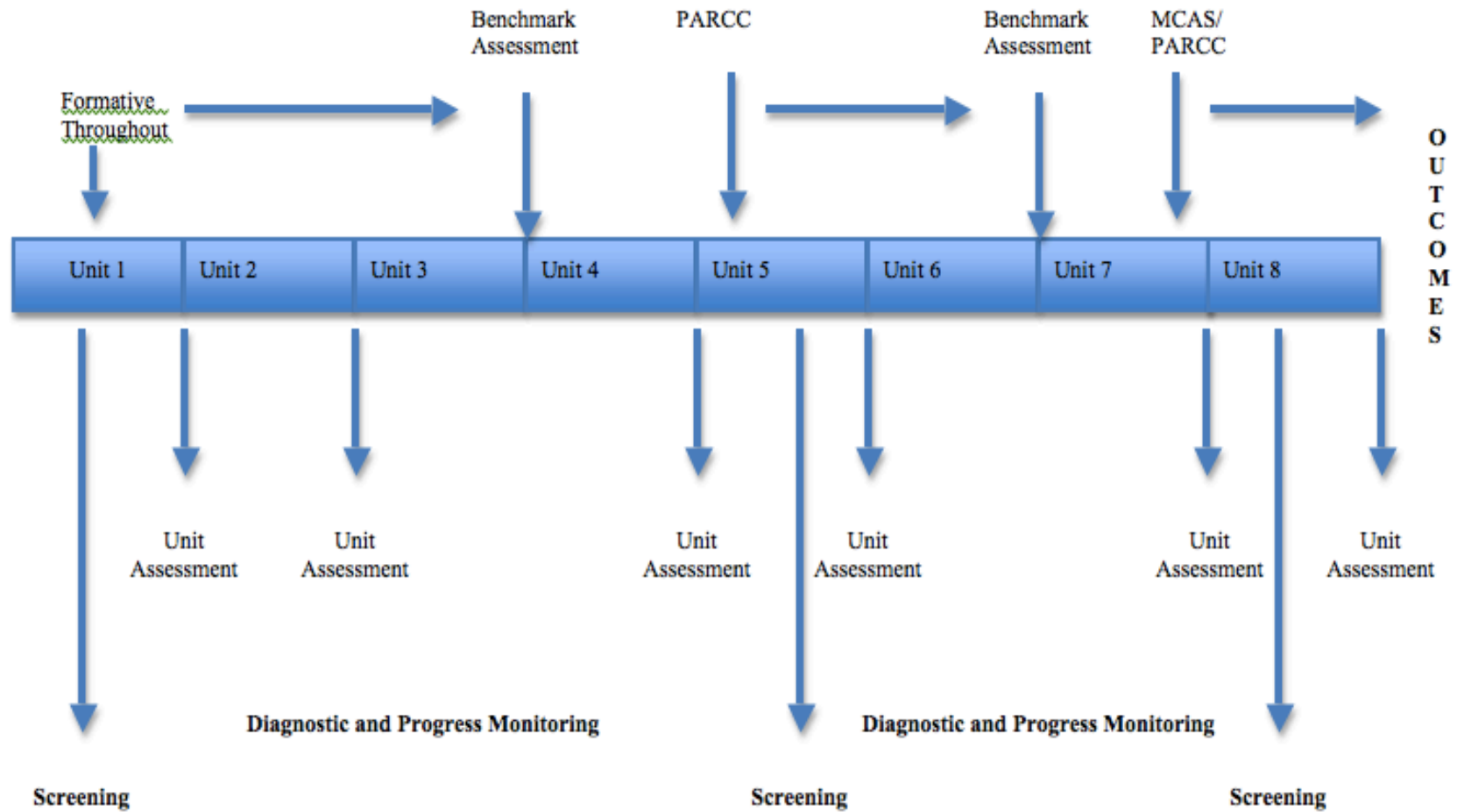
Grade 7 Performance and Demographic Data



NEXT STEPS

- SY 2015-2016 Roll Out
- Strengthening RTI
- Summer Math 180
- Task Force
- Data Analysis
- New Common Assessments

Year-Long Curriculum and Instructional Program



THE ACCELERATED MATH PATHWAY

Making CPS Work for ALL Learners

ACCELERATED MATH PATHWAY (AMP)

- Some history

School	2012-2013		2013-2014		2014-2015	
	# Enrolled in Algebra I	# Passed CRLS Algebra I Exam*	# Enrolled in Algebra I	# Passed CRLS Algebra I Exam*	# Enrolled in 8th Grade AMP	# Passed CRLS Algebra I Exam**
Amigos	7	3	8	4	11	May 2015
CSUS	21	21	21	9	23	
PAUS	3	0	3	0	25	
RAUS	26	10	28	14	23	
VLUS	26	1	26	15	24	
Total:	83	35	86	42	106	

SUCCESSIONS

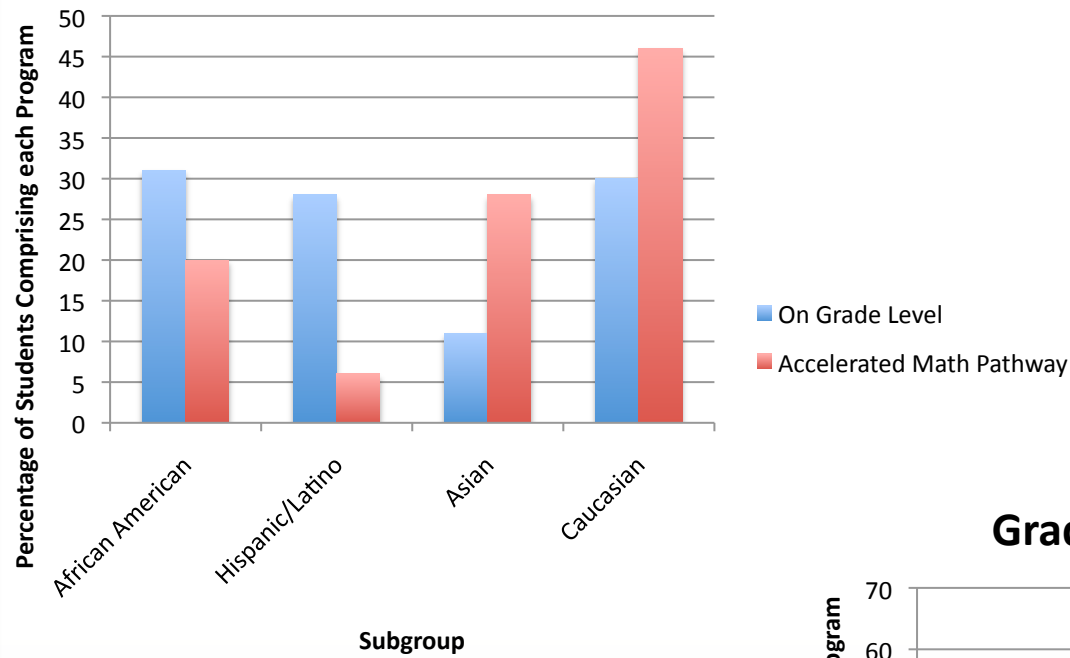
- Appropriately challenging students during the school day
- Students taking risks in a safe environment
- Students stepping up as leaders
- Student pride

IMPLEMENTATION CHALLENGES/UNINTENDED CONSEQUENCES

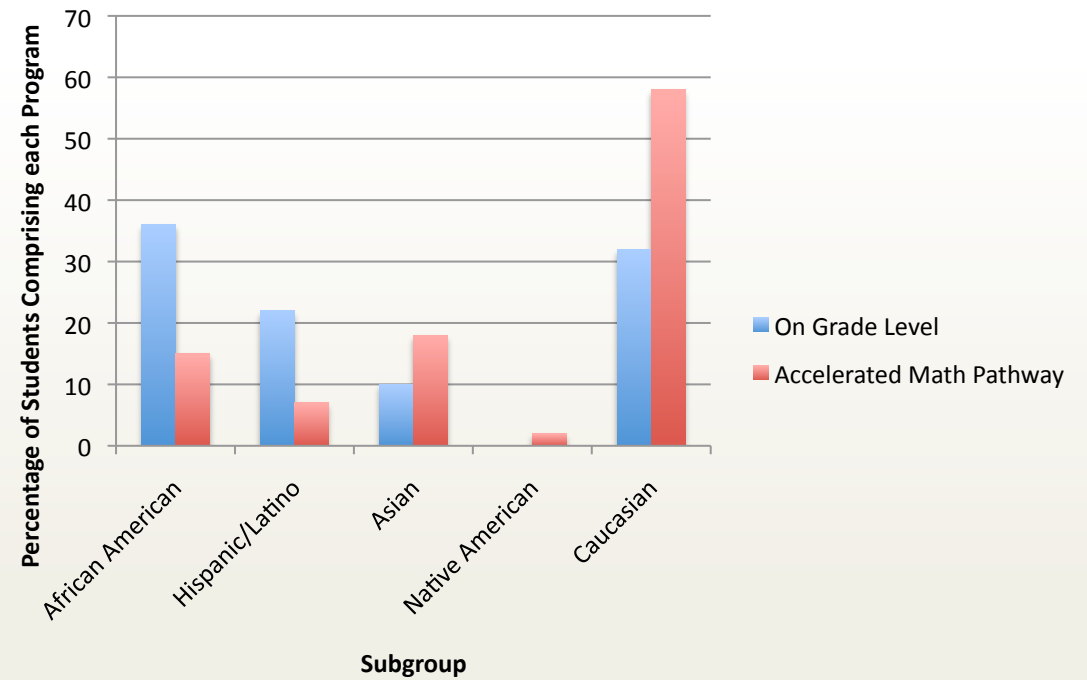
- Eligibility
- Scheduling/Class Size
- Math in Focus Roll Out
- Diversity
- Fluidity
- Timing/Pacing
- After School Support

DEMOGRAPHICS

Grade 8 District Demographic Data



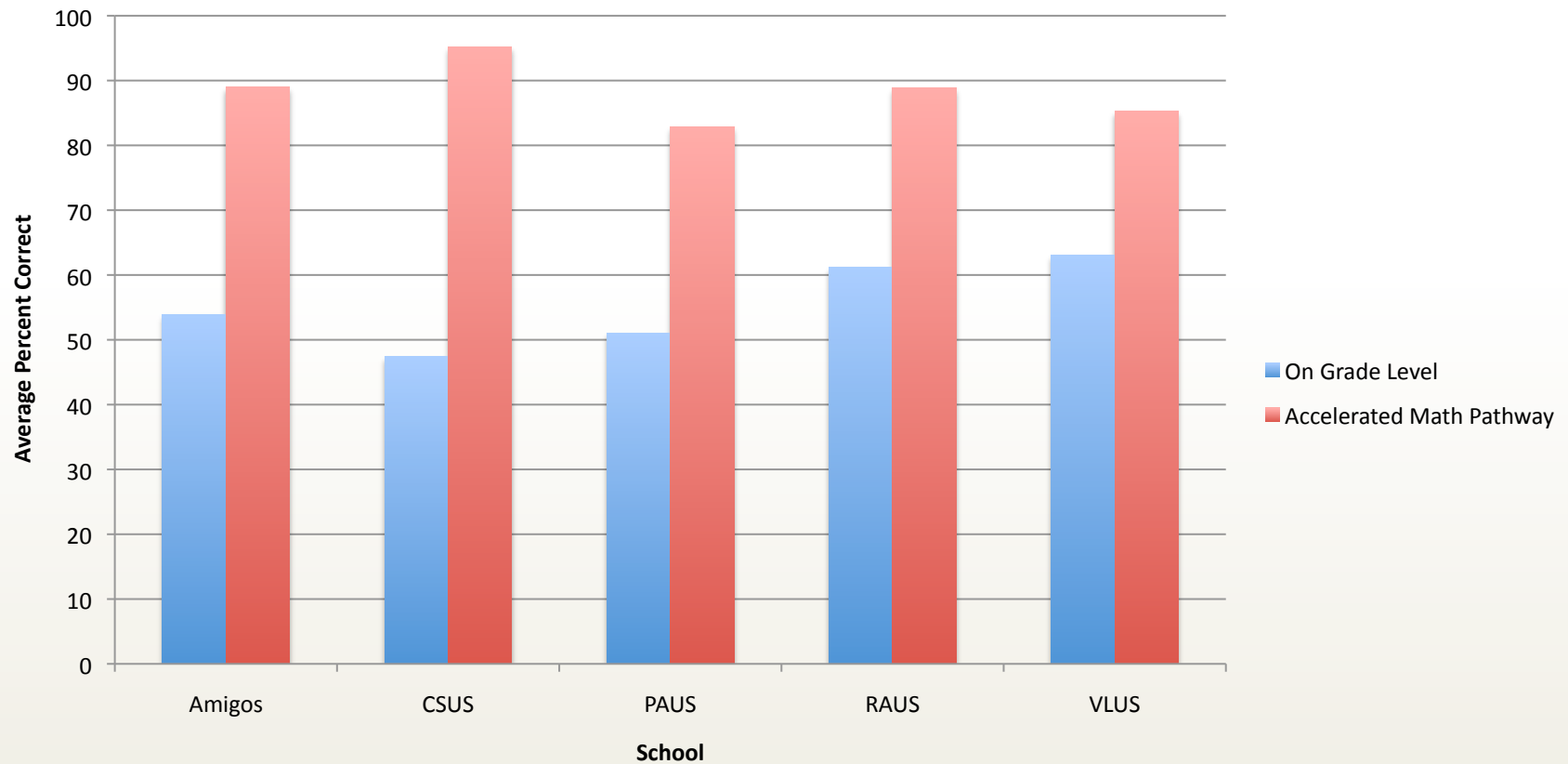
Grade 7 District Demographic Data



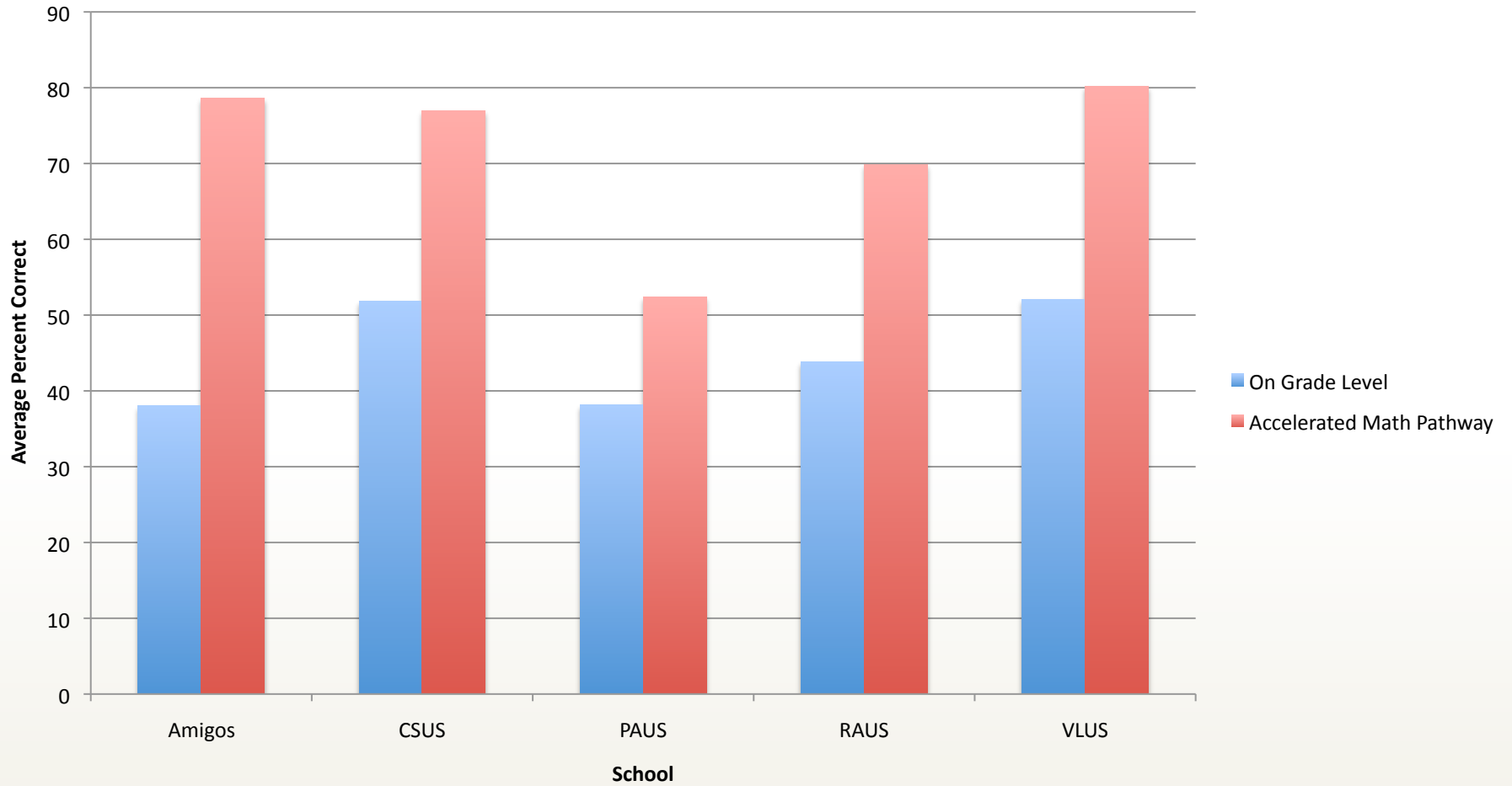
DISTRICT ASSESSMENT DATA ANALYSIS

AMP VS. ON GRADE LEVEL

Grade 7 Comparison of Percent Correct



Grade 8 Comparison of Percent Correct



RECOMMENDATIONS

- Grow the AMP at 7th grade
- Task Force
- Summer Programs:
 - AMP Support program
 - “Bridge” Program
- Modification to entrance criteria:
 - district assessments
 - teacher recommendation (normed)
 - MCAS score (actual score)
 - Iowa Algebra Aptitude Test Score

Skill/Topic	3	2	1
<p>Problem Solving</p> <p>Critical Thinking and Logical Reasoning</p>	<p>Reading and Understanding Consistently can explain the context of a word problem and can rephrase the question in their own words.</p> <p>Consistently able to connect the word problem to a concept.</p> <p>Attacking the Problem Consistently chooses an appropriate operation or method to solve.</p> <p>Consistently exhibits flexibility when choosing strategies.</p> <p>Consistently monitors progress and productively changes methods when necessary</p> <p>Consistently estimates before solving.</p> <p>Consistently keeps track of process on paper in an organized and logical manner with clear solution.</p>	<p>Reading and Understanding Sometimes can explain the context of a word problem and can rephrase the question in their own words.</p> <p>Sometimes can connect the word problem to a concept.</p> <p>Attacking the Problem Sometimes chooses an appropriate operation or method to solve.</p> <p>Sometimes exhibits flexibility when choosing strategies.</p> <p>Sometimes monitors progress and productively changes methods when necessary</p> <p>Sometimes estimates before solving.</p> <p>Sometimes keeps track of process on paper in an organized and logical manner with clear solution.</p>	<p>Reading and Understanding Seldom can explain the context of a word problem and can rephrase the question in their own words.</p> <p>Seldom can connect the word problem to a concept.</p> <p>Attacking the Problem Seldom chooses an appropriate operation or method to solve.</p> <p>Seldom exhibits flexibility when choosing strategies.</p> <p>Seldom monitors progress and productively changes methods when necessary</p> <p>Seldom estimates before solving.</p> <p>Seldom keeps track of process on paper in an organized and logical manner with clear solution.</p>

- Re-evaluation:
 - No later than end of first quarter
 - Use new common assessments in conjunction with teacher recommendation
 - Movement up with support plan
 - Movement down after ample support

SUMMER PROGRAMS

Supporting Learners

SUMMER PROGRAM

	Grade 7 on-grade level	Grade 7 Accelerated Math Pathway	Grade 8 on-grade level	Grade 8 Accelerated Math Pathway
Amigos	0	0	0	2
Cambridge St Upper School	1	0	0	2
Putnam Ave Upper School	0	0	0	1
Rindge Ave Upper School	0	1	1	1
Vassal Lane Upper School	3	2	2*	0

RECOMMENDATIONS

- Clear focus
- Expansion of programs
- Earlier advertisement and communication with families
- Transportation for students
- Continued coordination with East End House and Breakthrough