

Olympia School District Closing the Achievement Gap in Mathematics

April 29, 2004
and
December 8, 2004





Why Are We Here?

- ◆ An Opportunity for District-Wide Collaboration
- ◆ We are Becoming a Professional Learning Community and We Must Face Some “Brutal Facts” About Math Achievement in Our School District
- ◆ Together, We Can Make a Difference for Our Kids

What Do Students Need?

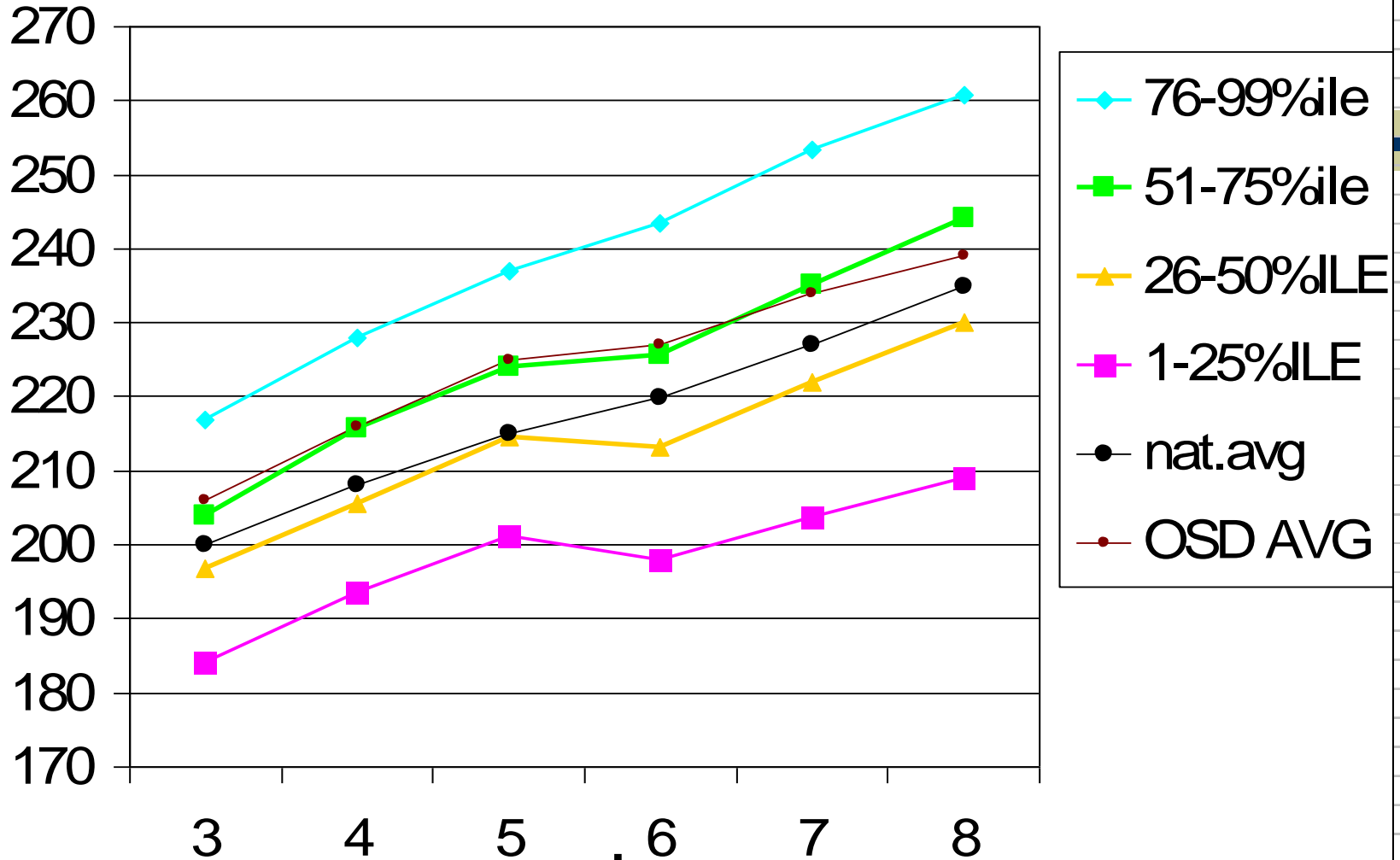
- ◆ To meet standards on the 10th grade Math WASL, our students must be enrolled in geometry in 10th grade at a minimum
- ◆ Students who do not take courses covering algebra concepts early risk closing the door on many important educational opportunities during their high school years and beyond

What does the data say?

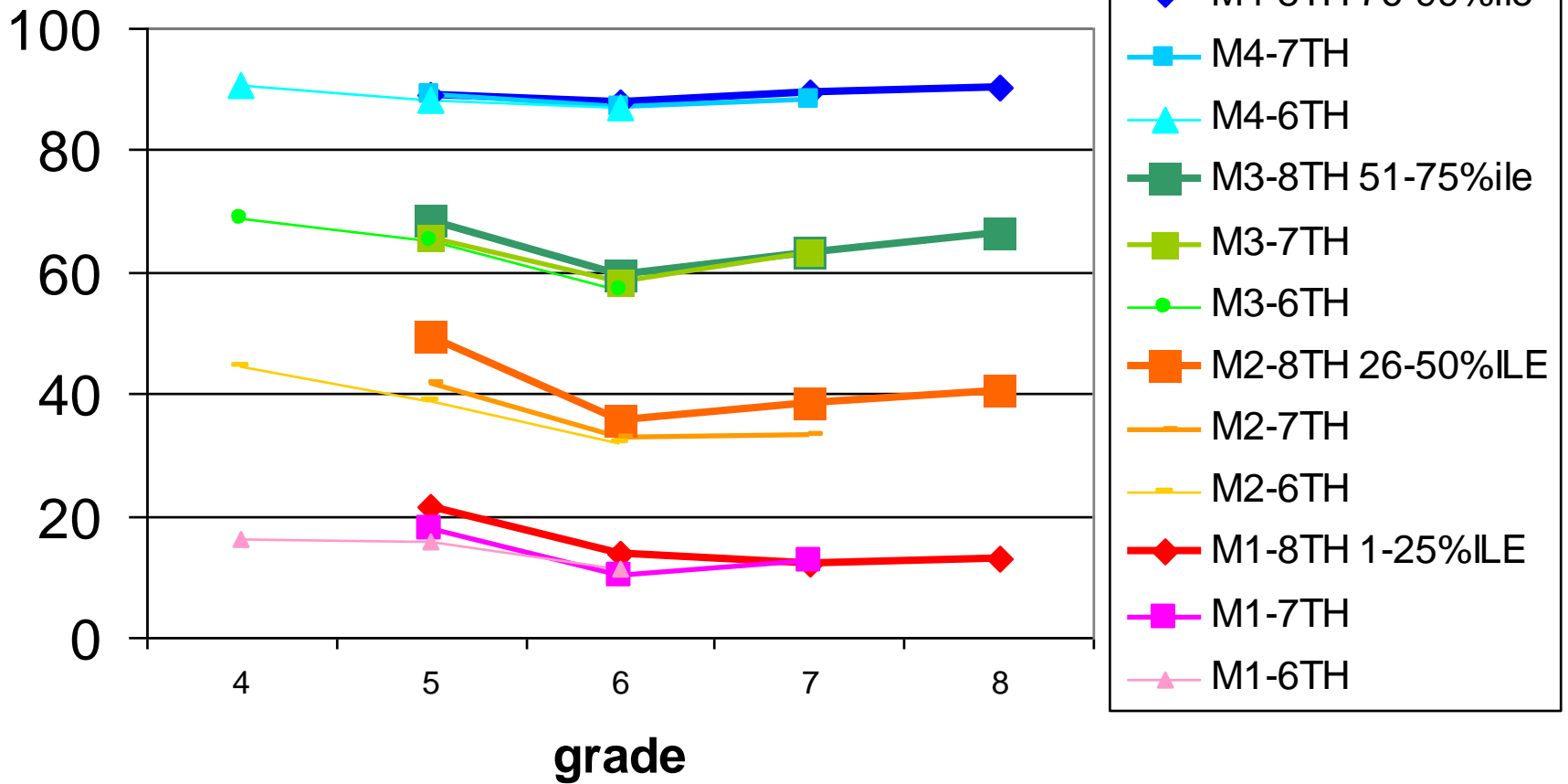
OlyALT tests

- ◆ Measure student growth in “RIT” scores
- ◆ Levels tests are designed to measure students growth from one year to the next.
- ◆ Nationally normed growth scale generally shows equal interval growth between grades
- ◆ On average, Olympia students show no growth from grade 5 to 6

OlyALT RIT SCORE



National Percentiles



Math progression in OSD

%ile ranks	5TH points for adv. Math	6TH	7TH	8TH	% of students	% passed WASL 7th	9TH	10TH	% of students	% passed WASL 10th
		90-99	"4"	Pre-Algebra	Algebra	Geometry	8%	100%	Algebra 2	Pre/Calculus
80-89	"2-3"	7th math	Pre-Algebra	Algebra	37%	87%	Geometry	Algebra 2	22%	95%
60-79	"1.5"									
26-59	"1"	6th math	7th math	8th math (pre-algebra)	46%	34%	Algebra 1	Geometry	32%	79%
					<u>83%</u>		Pre-Algebra	Algebra 1	<u>32%</u>	23%
1-25	"0"			Below	9%	0%	Below	Pre-Algebra	6%	0%
				Below				Below	2%	0%



Improving Mathematics Achievement for All

What Does the Research Say?

What Do Kids and Parents Want?

- ◆ 86% of students say they would like to go to college
- ◆ 91% of parents want their children to go to college
- ◆ Over 50% of students say they plan to drop math or science as soon as possible
- ◆ Schools need to help parents and students understand the importance of higher level mathematics in achieving their goals for the future

What Courses Do Students Need?

- ◆ Algebra is the “gateway” to rigorous mathematics courses
- ◆ Biology, Chemistry, Physics require early background in algebra and geometry
- ◆ Students who begin the study of algebra during the middle school are at a clear advantage

What About the Achievement Gap?

- ◆ Minority and low-income students are less likely to take challenging mathematics course in middle school and high school
- ◆ Parent and teacher involvement can largely influence student choices, but 79% of students report making course choice decision by themselves

What Can We Do Right Now?

- ◆ Place more students who are likely to achieve in 7th grade math in the 6th grade year
- ◆ Develop a strategy for accelerating students more quickly through 6th grade math (align with new GLEs)
- ◆ Send a team to the U of W Summer Institute on Computational Fluency

What Can We Do Right Now?

- ◆ Support Attendance at the OSPI Summer Institute in August
- ◆ Provide 12 hours of staff development beginning in August that promotes collaboration between levels
 - 6 hours on September 2, 2004
 - Two, 3-hour follow up sessions

What Can We Do in the Future?

- ◆ Work with K-12 district Math Committee on potential new program adoption for 2005-06 school year
- ◆ Consider change in high school graduation requirements
 - Minimum level to fulfill 2-year requirement (e.g. algebra/geometry)?
 - Alignment with expectations for college entrance?

What Can We Do in the Future?

- ◆ Extend the Work of the District to the School Level Through Student Learning Improvement Plans
 - Closely monitor student progress over time
 - Explore opportunities for extended learning at the school level
- ◆ Link Summer School Programs More Closely to the School Year Curriculum

What Do We Need to Make this Work?

- ◆ More (Higher Level) Math Books at the Middle Level for 2004-05 School Year
- ◆ More (Higher Level) Math Books at the High School Level in Subsequent Years
- ◆ Collaborative Staff Development Time that Spans Levels
- ◆ Strategies for Engaging and Involving Parents in Support of Student Achievement
- ◆ Other?



Next Steps

- ◆ Who?
 - Representatives from Each School
- ◆ What?
 - Planning Team (This Spring)
 - Computational Fluency Institute
 - OSPI Summer Institute
 - Staff Development Planning



Closing Comments

- ◆ We know what to do
- ◆ We must act NOW
- ◆ Together, we can make a difference for our kids