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***Challenge to Lead* Goals for Education**

**Keeping Middle Grades Students on
the Path to Success In High School**

***Improving Middle Grades:
What are Schools and States Doing?***

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Raleigh, North Carolina

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Challenge to Lead Goals

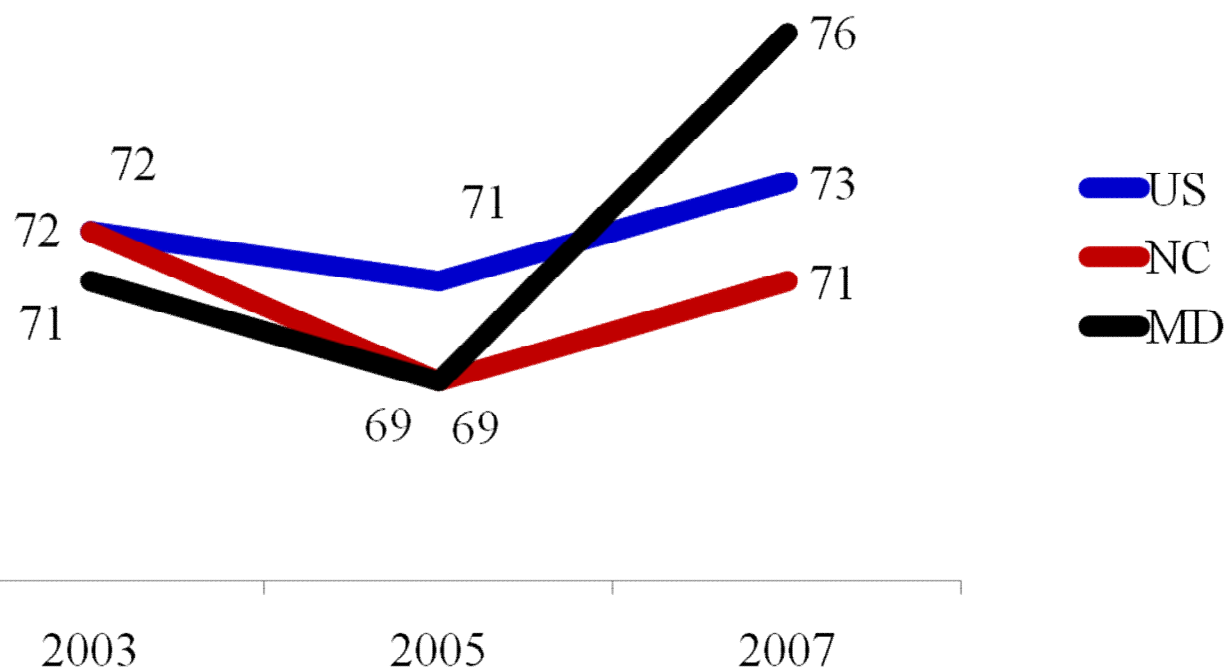
Middle Grades Achievement

- **Meet readiness standards for high school in reading and math**
- **Close achievement gaps**
- **Meet national averages for number of students at NAEP Proficient level; all students at Basic or higher**
- **Prepare students to enroll in Algebra I or be ready for it by end of eighth grade**

Reading Achievement in the Middle Grades

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NAEP Eighth-Grade Reading Results Percent Scoring At or Above Basic



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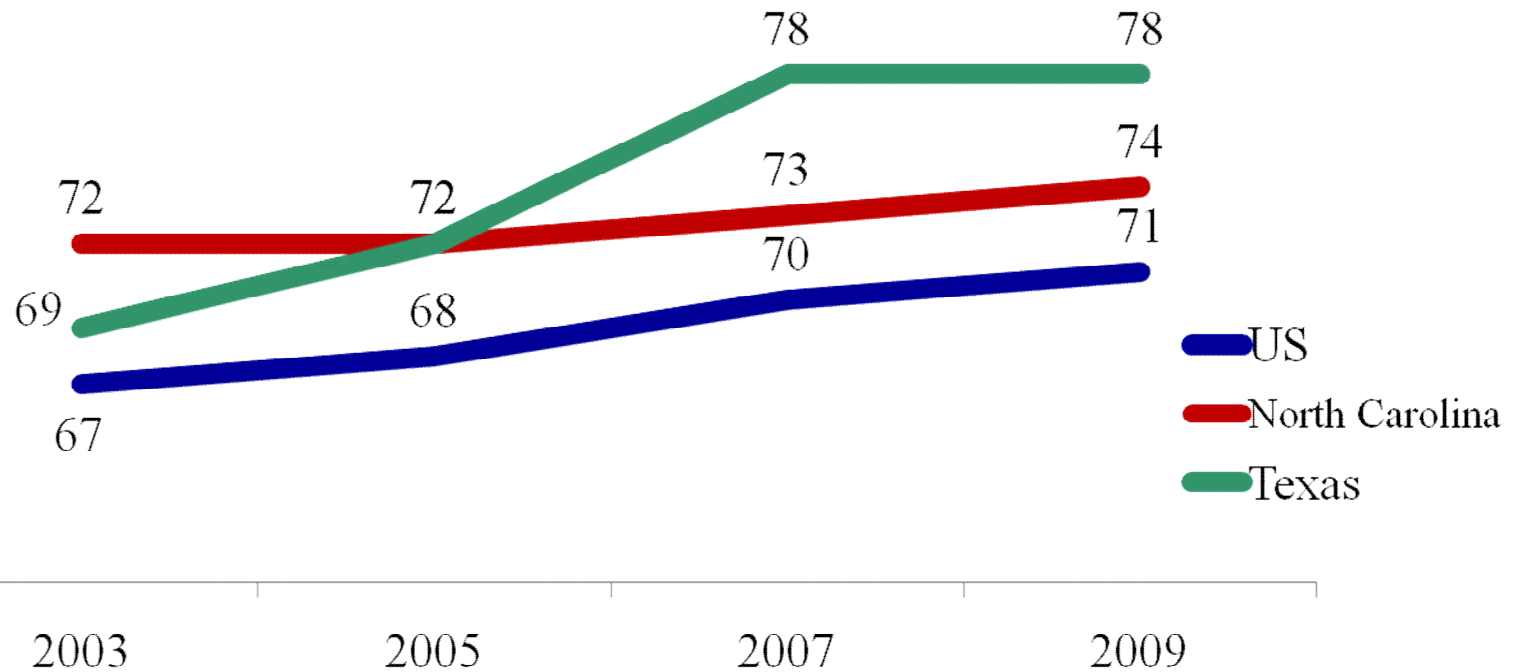
Source: National Center for Education Statistics

NC Leg 11-09-09

Math Achievement in the Middle Grades

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NAEP Eighth-Grade Mathematics Results Percent Scoring At or Above Basic



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Source: National Center for Education Statistics

NC Leg 11-09-09

Narrowing Achievement Gaps

Percent of Eighth Graders by Racial/Ethnic Group NAEP Basic in Reading

	North Carolina		Maryland	
	2003	2007	2003	2007
Black	56	53	55	60
Hispanic	52	56	61	69
White	83	82	80	86

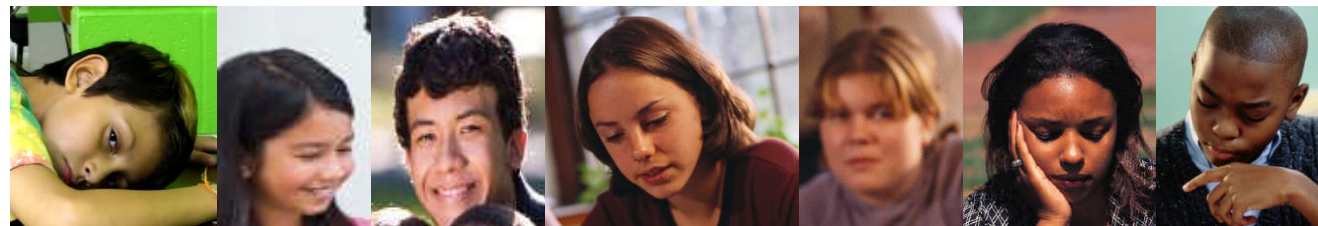
Narrowing Achievement Gaps

Percent of Eighth Graders by Racial/Ethnic Group NAEP Basic in **Mathematics**

	North Carolina		Texas	
	2003	2009	2003	2009
Black	49	53	47	66
Hispanic	55	67	58	70
White	85	85	84	89

Ninth-Grade Bulge

For every 100 eighth graders in North Carolina in 2006, there were 115 ninth graders in 2007 – 15 more students who failed to pass grade nine.



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What are improving middle grades schools doing?

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Middle Grades to Ninth Grade Transition

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Average Gains in Mean Scores Eighth Grade

	High Implementing <i>MMGW</i> Schools 2006 to 2008	North Carolina Schools 2005 to 2007
Reading	+11	+1
Math	+11	+2
Science	+15	NA

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Middle Grades to Ninth Grade Transition

Comparison of Achievement Gains at Most-Improved Middle Grades Schools with Gains at North Carolina Schools

	Most-Improved MMGW Schools NAEP-Like Exam		North Carolina Schools NAEP Exam	
	Reading	Math	Reading	Math
All	11	11	1	2
White	8	7	3	3
Black	12	14	1	- 4
Other	11	13	- 5	3

Middle Grades to Ninth Grade Transition

Changes Made in School and Classroom Practices, 2006 – 2008

Provided an accelerated curriculum to more students in middle grades:

- **14 more of every 100 students completed Algebra I with improved instruction for all students**
- **More students experienced greater emphasis on reading- and writing-for-learning in all classes**
- **21 more of every 100 students completed hands-on science activities and projects**

Middle Grades to Ninth Grade Transition

Changes Made in School and Classroom Practices, 2006 – 2008

- **10 more of every 100 students reported learning habits and skills important to high school success**
- **About 20 more of every 100 students reported studying with other students and using technology to complete assignments**
- **10 more of every 100 teachers said their school leadership was about continuous improvement**

Seven Actions for Improving Middle Grades

- 1. Make adolescent reading a priority**
- 2. Accelerate curriculum for struggling students**
- 3. Better prepare students for Algebra I by grade eight or nine**
- 4. Teach inquiry-based science**
- 5. Support professional development of teachers and school principals**
- 6. Build student aspirations for college, advanced training and careers – educational planning**
- 7. Develop and adopt a vision for the middle grades**

State Actions to Improve Middle Grades

Action 1: Make adolescent reading an immediate and sustained priority.

- Review state standards to ensure that literacy standards are embedded in each content area.
- Require all districts and schools to complete a data-driven literacy plan and monitor implementation of the plans.
- Require schools to provide early identification and intervention for struggling readers.
- Provide and request literacy training for teachers and principals in middle grades and continue to support literacy coaches in schools.
- Review certification standards to ensure that teacher preparation programs include content-specific reading and writing strategies for middle grades certification.

State Actions to Improve Middle Grades

Action 2: Provide an accelerated curriculum to all students.

- Identify fifth- and sixth-graders who are at risk of being unprepared for high school, and provide a system of accelerated, grade-level instruction and support in reading and math.
- Develop specific high school readiness standards in reading and math; provide descriptions of the level of performance expected on the standards that correspond to readiness for high school.
- Develop an accelerated curriculum for struggling students that promotes high quality instruction with the intent to bring students to grade level.

State Actions to Improve Middle Grades

Action 3: Restructure the middle grades math curriculum to help students either complete or be prepared for Algebra I by eighth grade.

- Align the curriculum to readiness for Algebra I as early as fourth grade.
- Focus the math curriculum on procedures, reasoning and understanding.
- Prepare teachers to teach fewer math topics and teach them in greater depth.



Algebra I by Eighth Grade

Percent of Eighth Graders Enrolled in Pre-Algebra or Higher and Scoring At or Above NAEP Basic Level in Math in 2007

	Pre-Algebra or Higher	NAEP Basic Level
Maryland	87	74
North Carolina	66	73
Texas	53	78

State Actions to Improve Middle Grades

Action 4: Set policies and standards for hands-on and inquiry-based science that is embedded with mathematics and literacy.

- Strengthen the science content background of middle grades teachers and train them in inquiry teaching methods that engage students in learning while building scientific research skills.
- Emphasize the importance of inquiry-based science and how it can be integrated into math and literacy instruction.
- Establish policies and standards for inquiry-based science instruction that reflect the importance of learning science for globally-competitive jobs as well as academic preparation.
- Provide resources for the equipment and materials middle grades schools need to teach inquiry-based science.

State Actions to Improve Middle Grades

Action 5: Improve the preparation of current and new teachers and principals.

- Prepare **new teachers** who have depth of content knowledge and know how to engage and motivate students in mastering content.
- Support **professional development** that is directed to teachers' daily practice, student learning and school improvement.
- **Prepare, support and evaluate principals** to become instructional leaders in middle grades.

State Actions to Improve Middle Grades

Action 6: Build on adolescents' aspirations for college and careers to engage them in exploring and planning for future education and career opportunities.

- Orient middle grades students and their parents to high school requirements and school studies leading to college, advanced training or a career.
- Require the school to assist each student with the involvement of parents to plan a tentative program of study.
- Provide classroom assignments that enable students to apply academic knowledge and skills to complete a variety of adult career roles.
- Support curriculum designed to challenge and engage the natural curiosity of students regarding robotics, electronics, product design, technology, etc.

Student Aspirations

Amount of education I think I will complete:

Graduate degree	36%
Finish college 4 or 5-year degree	35%
Two or more years of college (including 2-year degree)	11%
Complete career/ technical, trade or business school program	4%



Graduate high school or GED Certificate	6%
Less than high school graduation	1%
Don't know	7%

Responses to 2008 Middle Grades Student Survey

State Actions to Improve Middle Grades

Action 7: Most states have not articulated a comprehensive vision of effective middle grades schools that prepare more students for challenging high school studies.

- Commission a group of state leaders to develop a comprehensive vision for effective middle grades to prepare more students for high school studies.
- Prepare and distribute a report that establishes state priorities and provides strategies that state, district and school leaders can use to improve middle grades education and ensure that students leave the eighth grade prepared for high school.

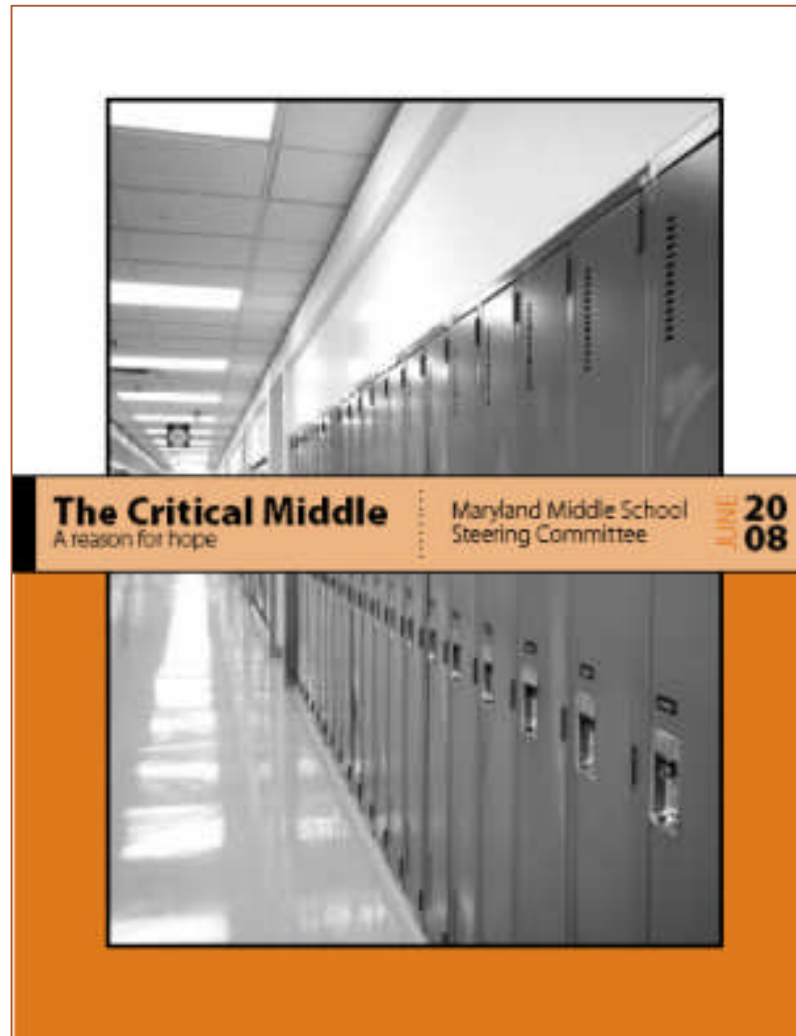
Maryland's Middle Grades Report

The Critical Middle

<http://www.marylandpublicschools.org/msde>

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