

Moving Forward

*Building a
competitive
and
inspired
future
workforce.*

Common Core State Standards
For Career and College Readiness
and the
Montgomery County Public Schools
Mathematics Curriculum

October 2010



Outcomes for the Session

By the end of the session, participants will have....

- Received background information on the *Common Core State Standards for College and Career Readiness* in mathematics
- Provided input on implications for MCPS

*Building a
competitive
and
inspired
future
workforce.*



MCPS Mathematics Goal

All students will achieve mathematical proficiency so that they are able to think and reason mathematically and use mathematics to solve problems.

Building a competitive and inspired future workforce.



*Building a
competitive
and
inspired
future
workforce.*



The MCPS vision for STEM Education is that all students achieve **Full-STEM** literacy through seamlessly integrated instruction that is relevant project-, problem- and standards-based. STEM literate students are critical thinkers who are able to solve non-routine problems in a globally competitive society.

Why Change?

- TIMSS and other studies
- Standards movement
- Diverse goals
- Greater focus and coherence

*Building a
competitive
and
inspired
future
workforce.*



How were the *Common Core State Standards for College and Career Readiness* developed?

- Developed in 2009-2010
- Council of Chief State School Officers (CCSSO)
- National Governor's Association Center for Best Practices (NGA Center)
- 48 states and District of Columbia

Building a competitive and inspired future workforce.



What's in a Name?

- *Common:*
 - pertaining or belonging equally to an entire community, nation, or culture; public
- *Core:*
 - the central, innermost, or most essential part of anything
- *State:*
 - made, maintained, or chartered by or under the authority of one of the commonwealths that make up a federal union
- *Standards:*
 - a clear set of shared goals and expectations for the knowledge and skills necessary for student success

*Building a
competitive
and
inspired
future
workforce.*



Guiding Principles

- Fewer, clearer, higher
- College and workplace expectations
- Rigor and application
- Internationally benchmarked
- Research and evidence based

*Building a
competitive
and
inspired
future
workforce.*



*Building a
competitive
and
inspired
future
workforce.*

The standards:

- *Are not a curriculum—they provide a shared “what” students need to know, not a prescribed “how” this should be taught.*
- *Are not mandatory at the federal level—they represent the results of a state led effort that is not part of NCLB*



Similarities/Differences

Both...

- Vertically aligned
- **Mathematical proficiency**
- College/Career readiness
- **Opportunities for all students**
- Research and evidence based

CCSS...

- Fewer topics in elementary grades
- **Change in where specific content occurs across grade levels**
- **Explicit STEM topics in high school standards**

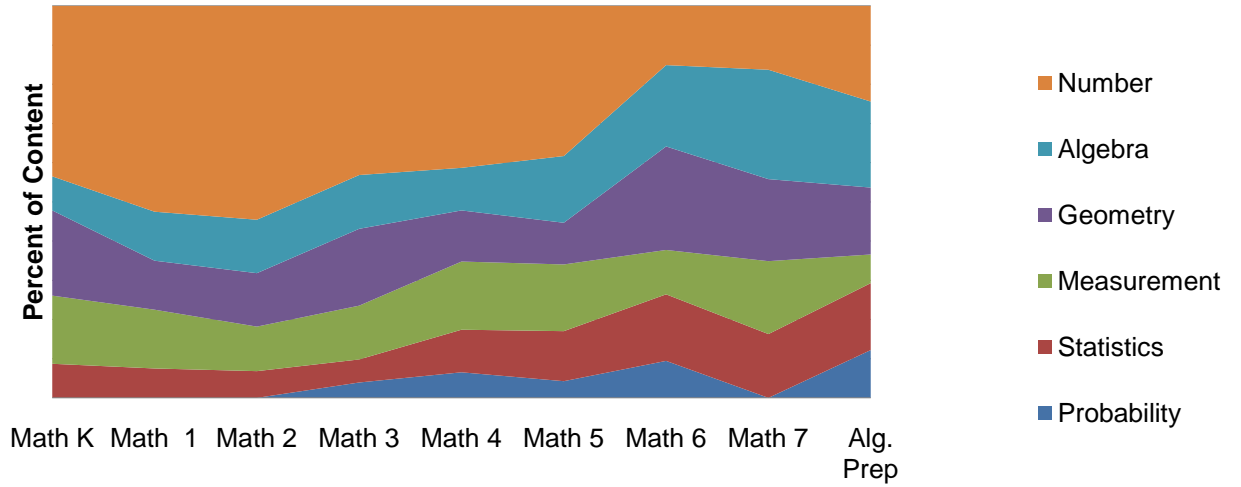
Building a competitive and inspired future workforce.



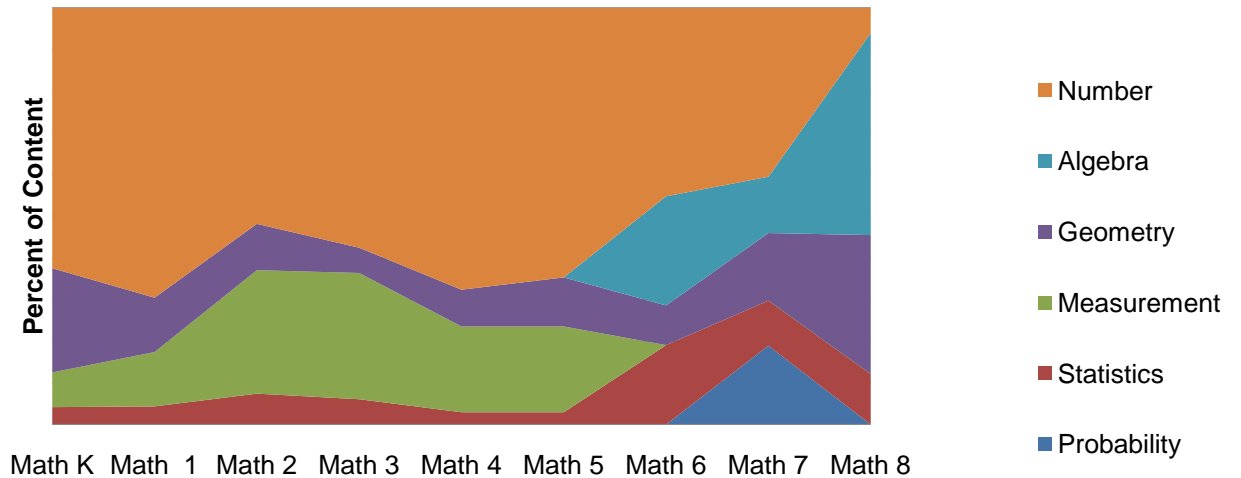
Building a competitive and inspired future workforce.



Current MCPS Curriculum

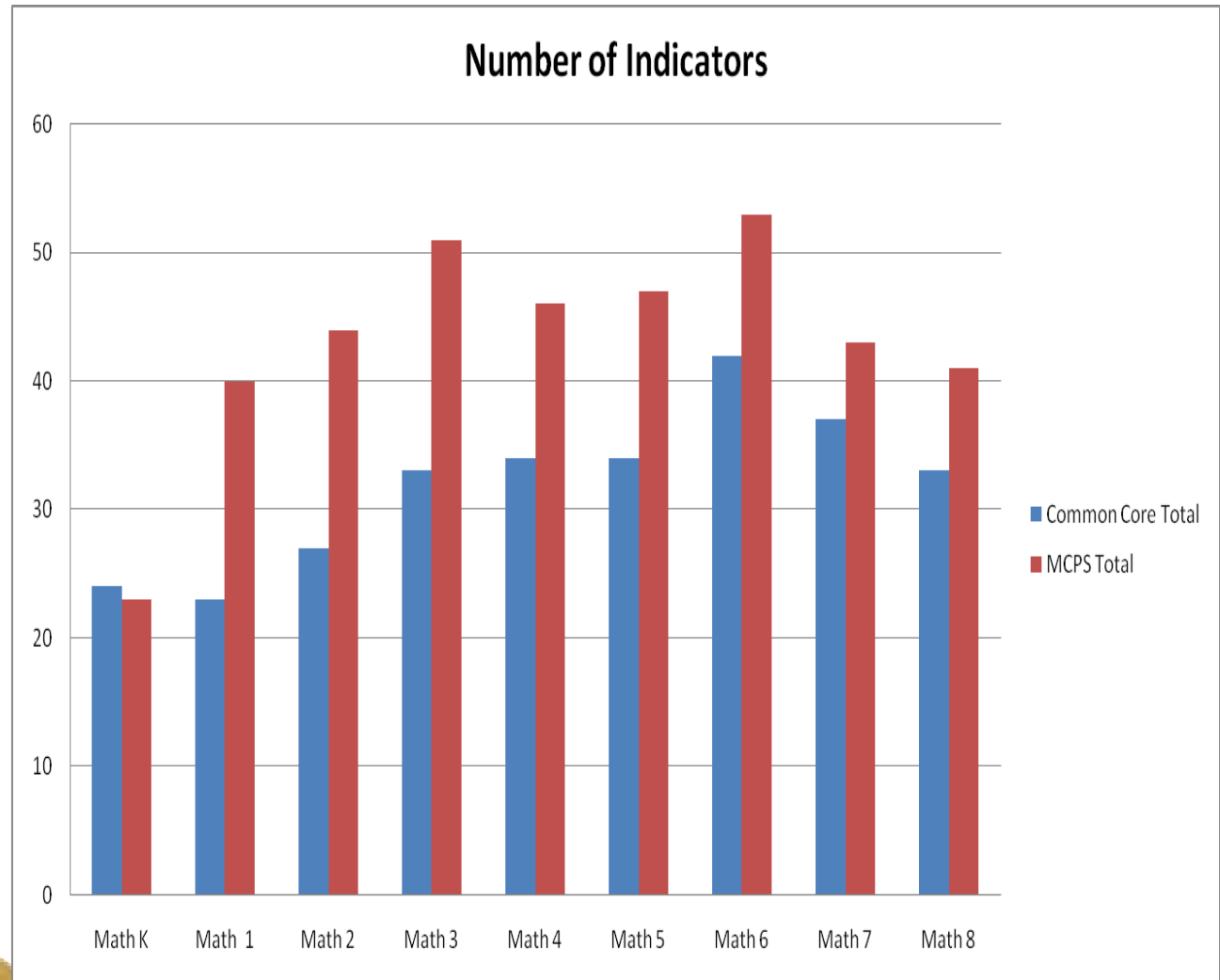


Final Common Core Standards



So...what does this mean for MCPS and MY CHILD?

Building a competitive and inspired future workforce.



Key Points for Mathematics Elementary

*Building a
competitive
and
inspired
future
workforce.*

- The K-5 standards provide students with a *solid foundation in whole numbers, addition, subtraction, multiplication, division, fractions and decimals.*
- The K-5 standards build on the best state standards to provide detailed guidance to teachers on how to navigate their way through knotty topics such as *fractions, negative numbers, and geometry*, and do so by maintaining a continuous progression from grade to grade.



The standards stress not only procedural skill but also conceptual understanding, to make sure students are learning and absorbing the critical information they need to succeed at higher levels

Building a competitive and inspired future workforce.



Key Points for Mathematics Middle

*Building a
competitive
and
inspired
future
workforce.*



- Students who have completed 7th grade and mastered the content and skills through the 7th grade will be *well-prepared for algebra* in grade 8.
- The middle school standards are robust and provide a coherent and rich *preparation for high school mathematics*.

Key Points for Mathematics High School

*Building a
competitive
and
inspired
future
workforce.*

- The high school standards call on students to *practice applying mathematical ways of thinking to real world issues and challenges*; they prepare students to think and reason mathematically.
- The high school standards set a *rigorous definition of college and career readiness*, by helping students develop a depth of understanding and ability to apply mathematics to novel situations, as college students and employees regularly do.



*Building a
competitive
and
inspired
future
workforce.*

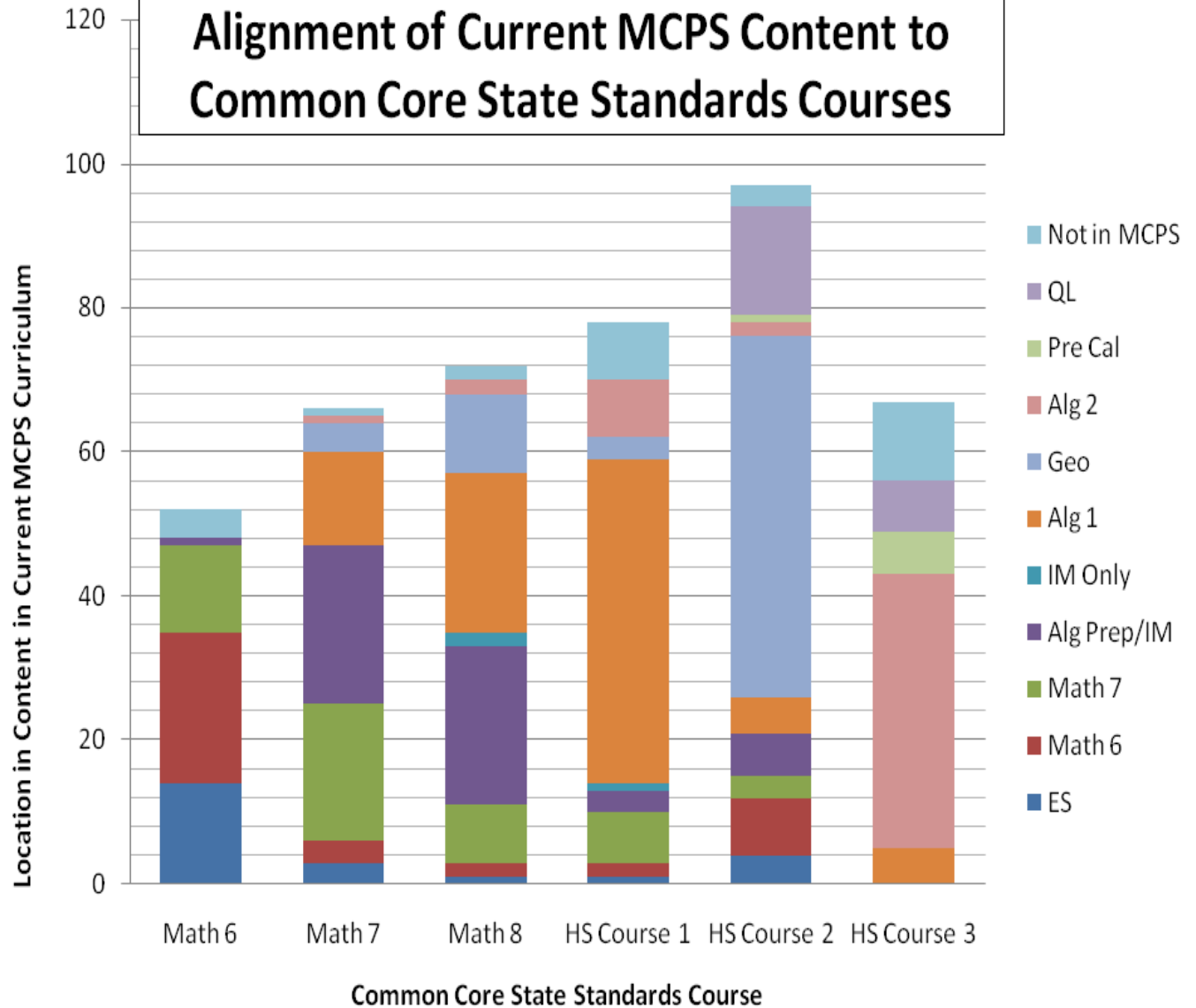
- The high school standards *emphasize mathematical modeling*, the use of mathematics and statistics to analyze empirical situations, understand them better, and improve decisions.



Building a competitive and inspired future workforce.



Alignment of Current MCPS Content to Common Core State Standards Courses



PARCC



Partnership for Assessment of Readiness for College and Careers is one of two consortia proposing assessments to measure the CCSS at K-8. Maryland is one of 27 states in this consortium.

2-3 through course assessments after 25%, 50%, and 75% of instructional time.

End-of-Year Assessment – administered online.

Cumulative Scores would replace state assessment score.

Building a competitive and inspired future workforce.



What's Next?

- A year of study and dialogue
 - MCPS math workgroup report
 - Development and voluntary implementation of Elementary Integrated Curriculum
 - Information and guidance from MSDE regarding timeline and assessment
 - Investigation of middle and high school course options

*Building a
competitive
and
inspired
future
workforce.*



For More Information

*Building a
competitive
and
inspired
future
workforce.*

- <http://www.montgomeryschoolsmd.org/curriculum/math/>
- <http://www.corestandards.org/>



*Building a
competitive
and
inspired
future
workforce.*

