



Good to Great

Top Performing School District Boosts Math Scores

HOWARD COUNTY FAST FACTS

- Top performing school district
- 40 Elementary schools
- 25,000 Pre-K–5 students
- 93% Students proficient or advanced in math on state assessments
- 18% Eligible for free or reduced price lunch
- 3% Limited English proficient
- 6% Title I (elementary only)
- 9% Special education

DREAMBOX IMPLEMENTATION

- Deployed since April 2009
- 19 Elementary schools
- 1,000 Students

FUNDING SOURCES

- Title 1
- PTA support
- Special education
- Elementary math office budget
- School/team instructional funds

ABOUT DREAMBOX LEARNING

DreamBox Learning's Intelligent Adaptive Learning™ program accelerates student learning by ensuring every student works continually in their optimal learning zone and helps all students achieve math proficiency.

Intelligent Adaptive Learning™

→ CHALLENGE:

Provide all students with exemplary math instruction

Howard County is one of the top performing school districts in the state of Maryland, serving over 25,000 elementary students in 40 culturally and academically diverse schools. With schools ranging from rural to urban and from high needs to high achieving, Howard County's goal is to ensure that each child within the district meets the rigorous performance standards that have been established.

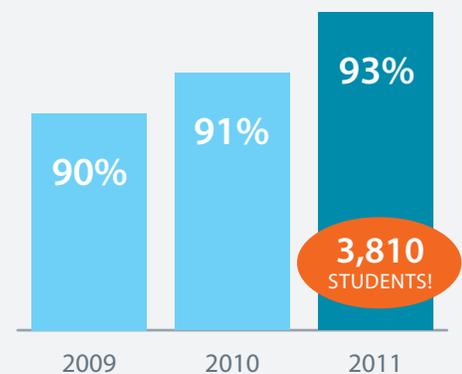
With nearly 93 percent of students qualifying as either proficient or advanced on state assessments, John SanGiovanni, the Instructional Facilitator in Elementary Mathematics for the Howard County Public School System, credits the district's success to its commitment to delivering exemplary instruction.

SanGiovanni explains the four components of exemplary instruction in Howard County: "First, instruction must be student centered and featuring hands-on active learning. Second, the content and curriculum must be rigorous. Third, the curriculum must be augmented and supported by rich communication and representation. Finally, we need to offer differentiated instruction that's driven by data."

To meet the challenge of providing a diverse student population with exemplary mathematics instruction,

Students Proficient or Advanced in Math on State Assessment

HOWARD COUNTY
3RD GRADE STUDENTS



Howard County augmented traditional classroom instruction with individualized, adaptive learning from DreamBox Learning.

→ SOLUTION:

Adaptive online instruction with rich interactive representations

In 2009, Howard County deployed DreamBox Learning in each of its elementary schools with an eye toward introducing and reinforcing key mathematical concepts through effective, individualized instruction in an engaging learning environment.

SanGiovanni says it didn't take long for teachers to notice how well the program aligns with the district's vision of exemplary instruction. "Rote algorithms are not the best way to

attain number sense," says SanGiovanni. "What DreamBox does is use interactive representations instead, so students develop an understanding of how they can manipulate numbers. Moreover, students need rich representations to understand what is going on with what they consider abstract symbols. DreamBox utilizes number lines, hundred charts, and ten frames to provide representations that demonstrate what is really happening."

essential to the program's success. Some Howard County schools used DreamBox for enrichment while others used the program for additional intervention support or as a daily classroom activity for all students. "DreamBox complements classroom instruction through small-group instruction, center rotation, and even indoor recess," he says. "But we're also using it for before- and after-school tutoring, enrichment, and pre-teaching. That's

"The DreamBox online curriculum program is truly innovative and is helping our schools develop mathematical thinkers."

— John SanGiovanni, Instructional Facilitator, Elementary Mathematics
Howard County Public School System, Maryland

Howard County needed a flexible program that would fill gaps in students' understanding, differentiate instruction for every student, and work well for both struggling students and those exceeding grade level expectations. SanGiovanni says, "DreamBox adapts to each student in a very granular way based not just on right and wrong answers, but also on student strategies. The program integrates instruction and assessment, differentiates instruction, and provides our teachers and math coaches with concise reporting on student progress."

→ IMPLEMENTATION:

Flexible use models to meet different school schedules and structures

Managing program implementation across 40 elementary schools with varying schedules, computer resources, and academic needs can be challenging. SanGiovanni says the ability for teachers to implement DreamBox flexibly was

because DreamBox helps teachers break down objectives to better understand inherent skills and see the progress that students are making within that trajectory."

The ability of Howard County students to access the program at home also added to the flexible implementation options for the program, and DreamBox reporting allowed teachers and administrators to track academic progress made at school or home. "The DreamBox reports enable administrators to compare usage by classroom," SanGiovanni says. "You can see how students are taking advantage of the program, on weekends and at home after the end of the school day. You can also track how many students play each day. At the same time, the Administrator Dashboard enables examination of individual student performance."

→ RESULTS:

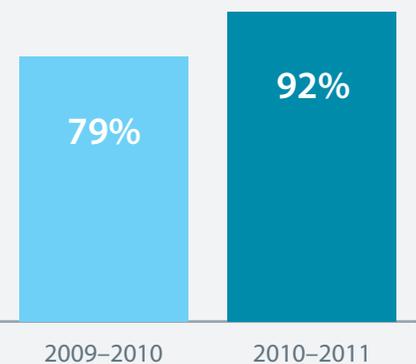
Good to great state assessment results

Howard County School District's math test scores have gone from good to great. The percentage of 3rd grade students scoring proficient or advanced in math on the MSA has increased from 89.5 percent in 2009 to 93 percent in 2011. At a building level schools are seeing even greater results. At Phelps Luck Elementary, a school where students are using DreamBox consistently in the classroom, 91.9 percent of students were proficient or advanced in math on the MSA in 2011 — up from 78.8 percent in 2010.

"Students who use DreamBox have a better understanding of math concepts," says SanGiovanni. "They're able to use this understanding to learn new third grade concepts which leads to improved Maryland School Assessment (MSA) scores."

Students Proficient or Advanced in Math on State Assessment

PHELPS LUCK ELEMENTARY
HOWARD COUNTY PUBLIC SCHOOLS



For more information, contact Client Care at 877.451.7845, email schools@dreambox.com or visit dreambox.com.