

MOODY'S MEGA MATH CHALLENGE 2014:

Lunch Crunch: Can Nutritious Be Affordable and Delicious?

Participants of Moody's Mega Math (M^3) Challenge used mathematically-founded insights to address concerns posed by government officials, school districts, and students about school lunches. The teams solved the problem of funding nutritious school lunches that are tasty enough for kids to eat. Close to 1,200 solutions, representing the work of over 5,000 high school juniors and seniors, were submitted for the rigorous three-stages of judging. Students from the North Carolina School of Science and Mathematics tasted victory – and a healthier school lunch – in late April 2014, when the team of five seniors earned the top prize at the ninth annual Moody's Mega Math (M^3) Challenge. As Champions, they received \$20,000 in scholarships for presenting the *best* answer to the question.

Moody's Mega Math (M^3) Challenge is a math modeling contest organized by the Society for Industrial and Applied Mathematics (SIAM) and sponsored by The Moody's Foundation. The internet-based challenge is designed to spotlight the relevancy and power of mathematics to solve real-world issues. The fun and challenging contest also motivates students to consider further education and careers in mathematics. The participating teams have 14 hours to study the issue in question, collect data, and devise models before uploading their solutions online in the form of a report with recommendations. The problem is completely unknown to teams until they download it on the morning of their Challenge day.

The following is the Champion team's paper from the 2014 Moody's Mega Math Challenge. It appears as it was submitted in the competition, except for a few reviewer suggestions incorporated by the students.

Complete information about the M^3 Challenge is available at <http://m3challenge.siam.org>.