

1116-K1-1945      **Leon H Seitelman\*** (lseitelman@aol.com), 110 Cambridge Drive, Glastonbury, CT 06033. *A National Mathematical Modeling Contest to Seed the STEM Pipeline.*

The need for more STEM-trained graduates is an often stated national priority, success in expanding the STEM pool has been limited. High school students thinking about possible career paths can benefit from an opportunity to learn how mathematical modeling can help us understand and solve a broad spectrum of real-life problems, a powerful demonstration of the practical value of mathematics in today's world.

The Moody's MegaMath ( $M^3$ ) Challenge, funded by the The Moody's Foundation and organized by the Society for Industrial and Applied Mathematics, enters its eleventh year in 2016 with national reach. The  $M^3$  Challenge provides this kind of educational experience for teams of three to five high school juniors and seniors. Each team has 14 hours to study an open-ended, real-world problem and present its solution in the form of a jargon-free report that is understandable to the non-scientific community.

More than 1100 solution papers were submitted in the 2015 contest. Selecting the best of the solution papers for recognition (and cash prizes!) is a multistage process that was developed and repeatedly refined over the past decade. In this paper, we review this development process, and discuss essential characteristics of successful solutions. (Received September 21, 2015)