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Bobson Wong* (bwong3@schools.nyc.gov), Bayside High School, 32-24 Corporal Kennedy St., Bayside, NY 11361. *The Meaning of the Mean*. Preliminary report.

Although many people are familiar with the arithmetic mean as a measure of central tendency, few understand how it connects to the real world or even where the formula comes from. To them, adding a data set's values and dividing by the number of values is simply an arbitrary calculation with little basis in reality. Based on the author's experience teaching statistics to high school students, this session will explore ways that students can understand the mean through simple physical demonstrations and other examples in probability and statistics. The session will contain many approaches for teaching the mean and the related concept of expected value (a key part of the Common Core Standards' probability section) to K-12 students. It will show how the mean is applied in sports (quarterback rankings), education (weighted grades), test-taking (guessing on a multiple-choice test), physics (centroid), and other real-world topics. The session will also discuss why students struggle with basic statistical concepts and how students can overcome these obstacles. (Received August 21, 2013)