

AICE-ASQ Workshop on Statistics and Measurement

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Topics for the Day?

- Basic concepts and introduction to probability modeling of measurement error
- Elementary one- and two-sample statistical methods and measurement
- Using some intermediate-level statistical methods to quantify the importance of sources of variability in measurements
- The analysis of data from standard gauge R&R studies
- Simple linear regression and calibration
- R&R concepts and simple analyses for go/no-go calls on individual items
- Accounting for quantization/digitalization effects and "off-scale" values in measurement
- Quantifying how measurement precision affects one's ability to detect differences between measurands

Materials and Contact Information

- Chapter 2 of a revision-in-progress of *Statistical Quality Assurance Methods for Engineers* by Vardeman and Jobe

- Materials freely accessible on Vardeman's ISU IE 361 course Web site

<http://www.public.iastate.edu/~vardeman/IE361/ie361vard.html>

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