



QUANT: Quantifying Uncertainty and Analyzing Numerical Trends

Data Analysis, Probability, and Statistics Across the High School Mathematics Curriculum

QUANT is a 12-day professional development program at three locations in Ohio:

- At the Ohio Resource Center in Columbus: 14-19 & 21-26 June 2009
- At Wright State University in Dayton: 14-19 & 21-26 June 2009
- At John Carroll University near Cleveland: 19-24 & 26-31 July 2009

with two Saturday workshops during 2009-2010.

Target audience High school mathematics teachers in Ohio, with an implementation plan and the support of their school principal. Teachers are encouraged to apply in pairs.

Content QUANT is a 12-day program that explores Data Analysis, Probability, and Statistics concepts and problems in depth using graphing calculators and related technology as tools for teaching and learning. *Topics:* Types of data; Measurement and data collection; Experimental design; Statistical problem solving; Basic modeling and regression; Combinations and permutations; Probability, including compound and conditional probability; Informal statistical inference: making decisions based on data.

Objectives

- To give teachers activities and strategies for delivering the Ohio's Data Analysis and Probability standard and improving student success in this standard in Grades 9–12.
- To develop the capacity to teach the Probability and Statistics components of Ohio's new Modeling and Quantitative Reasoning course.
- To develop teachers' comfort level and facility in using the TI-84, TI-*nspire* CAS, CBR 2, CBL 2, other data collection devices, and connectivity and statistical software.
- To help teachers develop lessons that meaningfully incorporate data and technology.

Registration fee \$200 to cover morning coffee and tea, snacks, and lunches.

Participant benefits (free materials and more)

- QUANT instructional materials packet (binder of rich activities plus CD).
- The American Statistical Association *GAISE* report and other print resources.
- TI-*nspire* CAS teacher bundle: handheld unit and corresponding computer software.
- **Stipends.** \$520: \$400 for the summer institute (\$40/day), \$50 for each follow-up workshops, \$20 for completion of project evaluation materials.
- **Optional graduate credit.** \$600 for 6 graduate quarter hours of credit (\$100/qtr hr) at ORC and WSU; \$640 for 4 graduate semester hours of credit at JCU.
- **Free room, breakfast, and dinner** if more than 45 miles away; commuter option available for all.

For questions and further information, contact Debra Fanning at <fanning@ohio.edu>.

The *QUANT* professional development program is offered through Ohio University Without Boundaries and is supported by a grant from the Ohio Department of Education. Partners include the Ohio Resource Center, John Carroll University, Wright State University, the Southeast Ohio Center for Excellence in Mathematics and Science (SEOCEMS), the Coalition of Rural and Appalachian Schools (CORAS), the Ohio University Colleges of Education and Natural Sciences and Departments of Mathematics and Teacher Education, and the Morton Chair Endowment.