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David White* (david.white@denison.edu), P.O. Box 810, Granville, OH 43023. *An Application-First Approach to Statistics.*

Interdisciplinary is central to the mission of most liberal arts colleges. In addition, studies have shown that student interest and retention (especially for under-represented groups and especially in introductory courses) improve when students see the connection to their other classes and interests. I'll present an approach to statistics that introduces new material first via the real-world problem that motivates the mathematics. I'll share labs and semester-long projects I designed based on data sets from and discussions with colleagues in 11 departments. Together with guest lectures, this approach prepares students to analyze data from numerous settings, to succeed in quantitative electives in other departments, and to conduct interdisciplinary senior research.

The connections this fostered in other departments helped lay the ground-work for a new Data Analytics major, for interdisciplinary collaborations, and for improved pedagogical synergy. I'll discuss which data sets worked especially well for introducing mathematical content, how to balance the mathematics and the projects so students are not overwhelmed, and ongoing work to create different introductory statistics sections with domain-specific applications. (Received August 17, 2015)