

## STATISTICAL ANALYSIS OF RESEARCH DATA

in Natcher Conference Center

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Office of Training and Education.

The lecturer is Paul Thurman of Columbia University (Paul.Thurman@Columbia.edu).

### AGENDA

#### **Mar 6, 2017 Univariate Data Analysis**

- 9:00 a.m.      • Introduction and case overview (including review of first assignment)  
                  • Descriptive Statistics  
                  • Data/probability distributions (with focus on Normal)  
                  • Sampling distributions (mean and variance)
- 10:30 a.m.      Break
- 10:45 a.m.      • Sampling distributions (mean and variance, continued)
- 12:00 noon      Lunch Break
- 1:00 p.m.      • Small vs. large samples  
                  • One-sample inferential statistics: means, variances, confidence intervals
- 3:00 p.m.      Break
- 3:15 p.m.      • Two-sample inferential stats: two-sample t-tests (paired vs.  
                  independent; means and proportions)
- Tutorials: Excel tutorials on descriptive statistics, histograms, two-sample tests of means*
- 5:00 p.m.      Close

#### **Mar 7, 2017 Bivariate Data Analysis**

- 9:00 a.m.      • Review of univariate analysis  
                  • Bivariate statistics (covariance, correlation, etc.)
- 10:30 a.m.      Break
- 10:45 a.m.      • Simple linear regression
- 12:00 noon      Lunch Break
- 1:00 p.m.      • Multiple linear regression
- 3:00 p.m.      Break
- 3:15 p.m.      • Non-parametric tools: Chi-squared, Wilcoxon, Mann-Whitney goodness  
                  of fit tests (as time permits)
- Tutorials: Regression, Chi-Squared, and ANOVA tests (as time permits)*
- 3:45 p.m.      Close

For additional information contact the Course Coordinator, Dr. Terry Moody  
([moodyt@mail.nih.gov](mailto:moodyt@mail.nih.gov)).