Day 1 – Part 1

# The Fundamental 2 x 2 Table of Statistics

- or when Statistics seem to lie they are usually just answering a different question

Day 1 - Part 2

# Statistical Reasoning with Ellipses: The Data Ellipse

Simple regression, the regression paradox, the anatomy of outliers: fit vs. leverage, significance at a glance

Day 1 - Part 3

# Statistical Reasoning with Ellipses: The Beta Ellipse

Simpson's Paradox, Confounders and Mediators, Variance Inflation, Perils of Statistical Model Selection, Added Variable Plots

Day 1 - Part 4

### Getting Started with R and R Studio

SCS 2017: Longitudinal and Nested Data
Day 1 – Part 1

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The Fundamental 2 x 2 Table of Statistics

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Day 1 – Part 1

# Mixed Models with R: Hierarchical Models to Mixed Models

- two equivalent views of nested data that reveal different and important features