

SESSION 1: TEACHING AND CURRICULUM

DATE: FRIDAY, FEBRUARY 23

TIME: 10:15 – 11:45 AM

Curvilinear Analysis of Learning for Cost Estimation

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ABSTRACT: When data analysis is conducted for learning curves, most managerial/cost accounting textbooks perform a logarithmic transformation of the curvilinear power function to a log-linear relationship. The logarithmic transformation allows students to utilize familiar linear regression techniques; however, the students may be left with the misconceptions that all relationships are linear or that the analysis of nonlinear data requires a transformation into linear equivalents. With enhanced statistical capabilities of spreadsheets, students eliminate these misconceptions by examining original curvilinear data when modeling learning curves. A cost estimation example illustrates the straightforward approach to curvilinear data analysis for learning.