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Course Title: How To Avoid Estimating Misses and Project Labor Overruns by Using Data Analysis and Field Labor Feedback Statistical Methodology (EAE®)

- **Course Length:**
    o Full Day

- **Short description**
    o This course focuses on how to use the 3 sources of data namely, Estimating, Field and Accounting using simple statistical methods to improve the hit ratios and accuracy of the estimates.

- **Detailed Description**:
    o Research shows that over 90% of the jobs have to deal with labor overruns at the completion of the project. Most of the time the project managers blame the estimates to be wrong and missing items as the cause of the overruns. The data analysis from hundreds of jobs does not agree with this assessment. Lack of correct measurement of the labor performance by cost-code is a stronger player and contributor to the outcome of the projects.

    To avoid labor overruns, improve the hit ratios and estimation accuracy three sources of data should be collected and analyzed. Hit ratios and accuracy of estimation can be improved by the application of a unique data-mining method and statistical process control. Using the historical data from accounting, estimating, project managers and job tracking, the contractor's owners and estimators can improve their estimation accuracy cost code by cost code and increase the predictability of their estimated labor units per job and avoid the labor overruns. Identifying and categorizing the reasons for missing items on the estimates will help avoid repeating the same mistakes.

- **Audience:** Owners, CFO's, Controllers, Accountants, Project Managers, Foremen, and key individuals involved with the operational or financial outcome of a project

- **Instructor:** Dr. Perry Daneshgari & Dr. Heather Moore

- **Learning objectives:**
    o The participants will learn how to analyze and, if needed, create the three sources of data namely, Estimating, Field and Accounting using simple statistical methods to improve the hit ratios and accuracy of the estimates. The participants will also learn how to use the same data to improve the field labor productivity. The quality of the data and how it needs to be gathered will be examined. The three sets of data will also be used to identify the company's overall productivity performance.

    o The following topics will be covered in detail:
        1. Data analysis of Estimation, Accounting and Job Tracking
        2. Applied statistics for contractors
        3. Methodology for interpretation of data
        4. Categorization and elimination of reasons for estimating misses