SOFTWARE COST ESTIMATION TECHNOLOGY TRANSFER

PRESENTED TO:

WICOMO/COCOMO USER’S GROUP

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PRESENTED BY:

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BACKGROUND - SOFTWARE RESOURCE ESTIMATION

- Widespread interest within Government, Industry, and Academia
  - high cost of software
  - general inability to predict software costs

- Many models and implementations for cost estimation in use

- Individual databases of resource estimation data being developed

- Technology Transfer vehicles in existence
  - WICOMO/COCOMO User’s Group
  - DACS
  - SEI
SOFTWARE RESOURCE ANALYSIS CENTER (SRAC)

OBJECTIVES

- Foster the interchange of information and data related to software resource estimation
- Provide a centralized source for consistent software resource data
- Develop and make available an unbiased source for advice, consultation and experience in cost estimation
AN APPROACH FOR SOFTWARE RESOURCE ESTIMATION TECHNOLOGY TRANSFER

SOFTWARE RESOURCE ANALYSIS CENTER

- STANDARDIZE
- SOURCE DATA PROTECTION
- CLASSIFY
- ANALYZE
- DISSEMINATE

SYSTEM DESCRIPTION
ESTIMATION ATTRIBUTES
ENVIRONMENT DESCRIPTIONS

BASELINES
ANALYSIS REPORTS
DATA
NEWSLETTER
### OUTLINE FOR AN EVOLUTIONARY SOLUTION

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<td><strong>STANDARDIZATION</strong></td>
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<td><strong>SOURCE DATA PROTECTION</strong></td>
<td>AUTOMATED SUBMITTAL</td>
<td>- TWO STEP ANONYMOUS SUBMISSION</td>
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<td>- VALIDATE OUR DATA</td>
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<td><strong>CLASSIFY, SUMMARIZE AND ANALYZE</strong></td>
<td>COCOMO DATA COLLECTION AND CALIBRATION</td>
<td>APPLICATION BASELINES</td>
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<td><strong>DISSEMINATE</strong></td>
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<td>STATE-OF-THE-ART REPORTS</td>
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BENEFITS

- Improve software project management
  - evaluate productivity effectiveness
  - track project performance
  - provide comparisons for project performance

- Provide for technology evaluation
  - new methods/tools
  - compare model performance

- Better cost estimation
  - lead the way towards prediction of costs during the system concept phase
BENEFITS OF SRAC APPROACH

- **For Participants**
  -- Provide calibration & comparison information for new applications, tools, methods, etc.
  -- Provide facility for confidential data analysis
  -- Provide a framework for data collection

- **For Software Resource Estimation**
  -- Facilitate comparison & assessment of models & implementations
  -- Provide empirical basis for refinement & evolution of estimation models & tools

- **For Project Management**
  -- Provide a resource of data for analogy sizing, sanity checks, etc.
  -- Baselines provide insight into impact of software engineering tools, methods & environments

- **For Software Engineering**
  -- Data facilitates comparison & evaluation of tools, methods, etc.
  -- Provides Potential for insight into software development process