SOMTech PMO

Intro to Estimating Workshop

Wednesday, March 24, 2021

1:00pm – 2:00pm

Agenda

1. Objectives
2. Overview of the Estimating Process
   - Factors Impacting Estimating
   - Benefits
   - Effort
   - Process
   - Estimating Techniques
   - Example Exercise
   - Challenges & Solutions
3. Conclusion/Wrap Up

Objectives

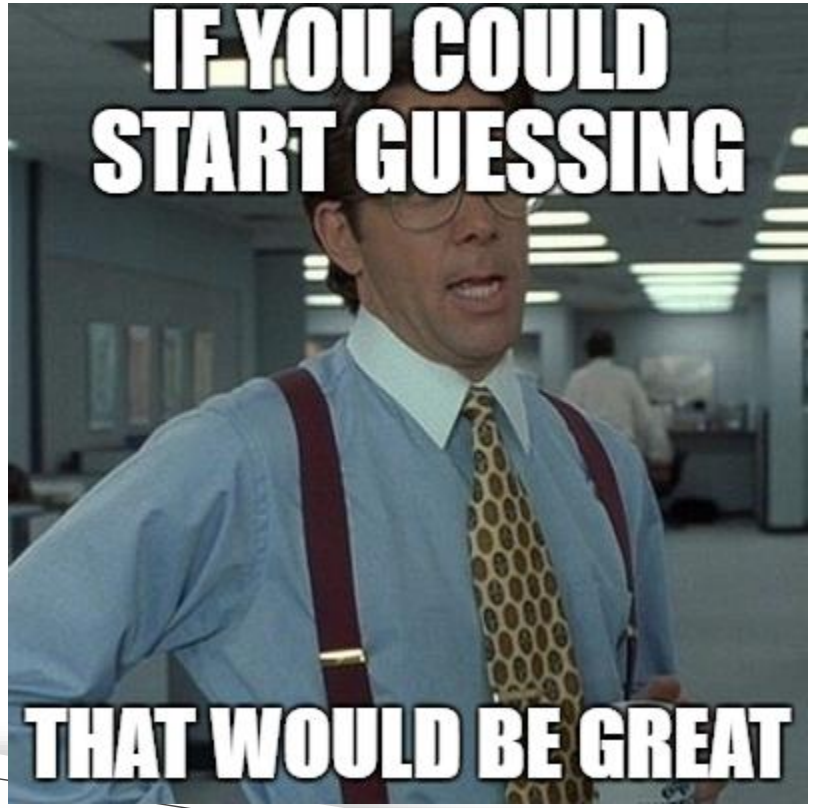
Objectives

By the conclusion of this workshop, participants will:

- Understand the importance of producing reliable estimates of effort
- Understand basic concepts of the estimating process

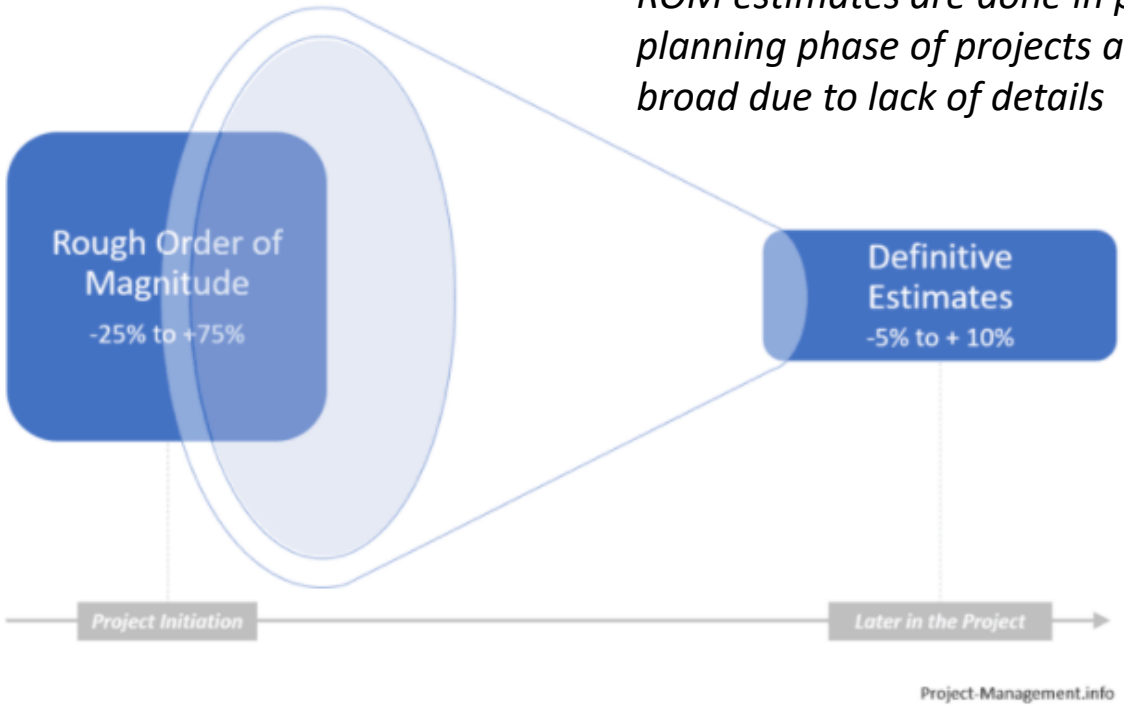
Overview of the Estimating Process

Current State



Rough Order of Magnitude (ROM)

ROM estimates are done in pre-planning or planning phase of projects and variance is very broad due to lack of details



Factors Impacting Estimating

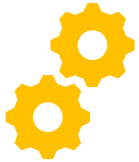
- Historical information/data
- Experience Level
- Learning Curve
- Requirements/Specifications

Benefits

Adopting a consistent approach to estimating has several key benefits:

- Provides broader team understanding of how a solution will be delivered
- Increase predictability
- Better determine resource needs
- Gain customer's confidence
- Avoid cost/budget shortfalls

3 Major Parts to Project Estimation

- **Effort** 
- Cost $
- Resource

In this workshop, we will focus on estimating Effort!

Iterative Process

VCU

Traditional Estimating Techniques

Technique	Description
Analogous (Top-Down)	Using historical data from a similar activity or project to estimate duration or cost (i.e. ball park estimate)
Three-Point (Triangular)	3 estimates based on Most Likely, Optimistic, and Pessimistic using formula tE=(tO+tM+tP)/3
Bottom-Up	Aggregate of lower level component estimates (of WBS) to estimate duration or cost

Agile Estimating Techniques

Technique	Description
Relative/T-shirt Sizing	Sizing a story or feature i.e. XS, S, M, L
Affinity	Grouping items that are like sized (can be done using T-shirt sizing)
Story Points	Units of measure for expressing an estimate of the overall effort required to fully implement a product backlog item or any other piece of work (points assigned based on complexity, amount of work, risk/uncertainty)
Planning Poker	Assign point value to a feature or item (i.e. Fibonacci sequence); Can be used with story points

Everyday Example of Estimating

Let’s estimate something we can all relate to, commuting to work at SOM…

AS Example of Estimating

FARES 3.0 (“Portfolio) Project is currently primarily date driven; future goal to be more effort driven to improve accuracy

- **Faculty Profile Management feature (#244)**
  - Feature allows user to create main profile & generate outputs such as CV, activity form, etc.
  - 36 hrs of effort to date
  - How many hrs to complete?

Solutions to Current Challenges

- **Lack of historical data as inputs to estimating**
  - **Solution(s):** Create repository of estimates (e.g. features) and historical info
- **Learning curve with new development platform (i.e. .Net Framework to .Net Core, Azure DevOps, Razor Pages)**
  - **Solution(s):** Utilize more experienced team members, understand each others strengths

Conclusion/Wrap Up

Conclusion/Wrap Up

- Any further questions?
- This presentation will be available on the AS Teams site

Thank you for participating!