# ESTIMATING TOOLS

- ✓ Analogous Estimating
- ✓ Parametric Estimating
- ✓ Bottom-up Estimating
- ✓ Three-Point Estimating
- ✓ PERT Estimating
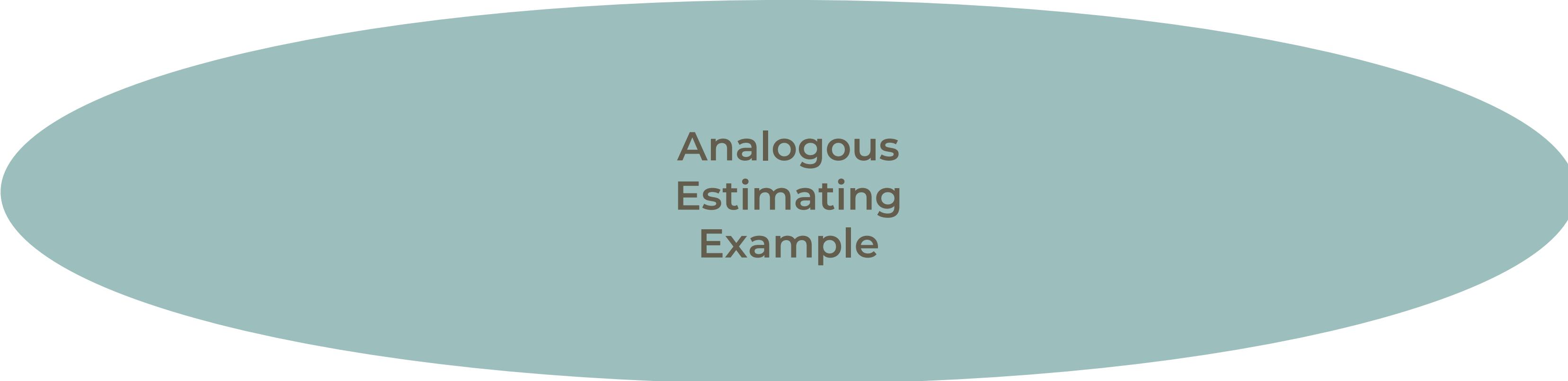
**Analogous Estimating**

HISTORICAL INFORMATION

Top-down estimating. Not as accurate.  Uses information from previous projects
as a basis for current estimation.

# Analogous Estimating Example

Previous project: 1,000 square feet = $500,000

New project: 2(1000) or 2,000 square feet = 2($500,000) or $1,000,000
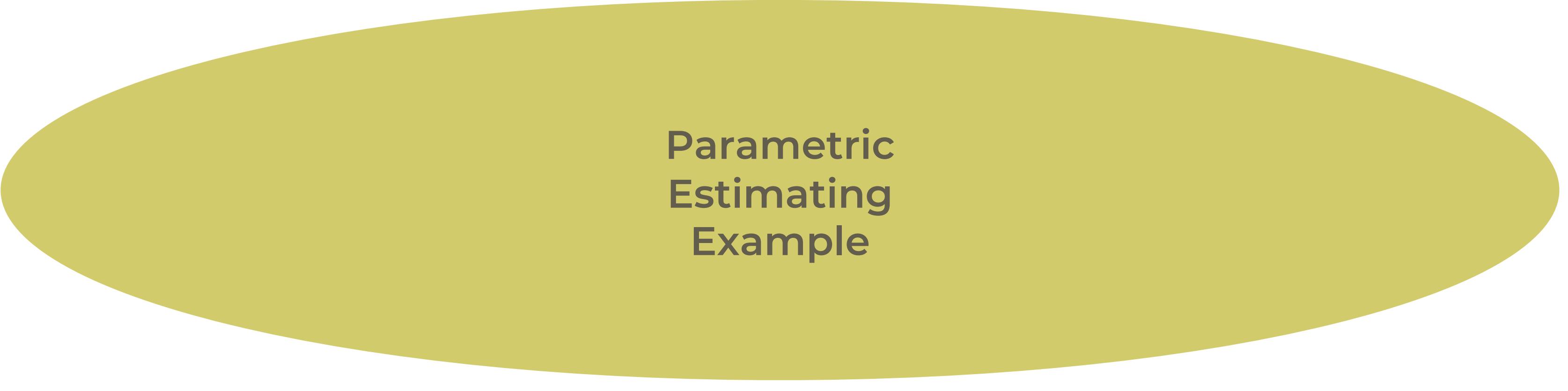
# Parametric Estimating

## MODELING BASED ON SPECIFIC PARAMETER

Previous or known costs scaled to meet a project's parameter

**Parametric
Estimating
Example**

Outsourcing Quote: $800 per day
Project Duration: 6 days
Estimate: 6($800) = $4,800

# Bottom-Up Estimating

**STARTS FROM $0**

Uses WBS to estimate cost for all activities.  Activity costs are summed to determine total.  More accurate. More time needed.
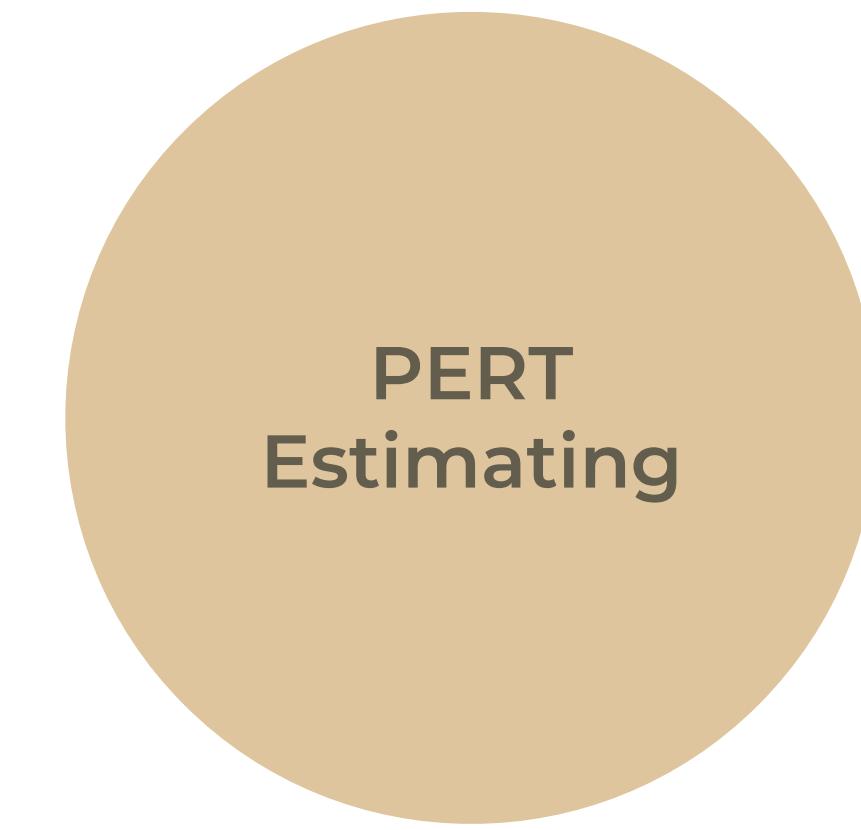
## Three-Point Estimating

**SUBJECT MATTER EXPERTS**

Average of optimistic, most likely, and pessimistic scenarios.

$$\text{Estimate} = \frac{(\text{optimistic} + \text{most likely} + \text{pessimistic})}{3}$$

# PERT
# Estimating

Average of optimistic, most likely, and pessimistic scenarios with more weight on most likely.

$$\text{Estimate} = \frac{(\text{optimistic} + (4*\text{most likely}) + \text{pessimistic})}{6}$$

**3-Point & PERT
Estimating
Example
Comparison**

Optimistic = $4,000     Most likely = $8,000     Pessimistic = $15,000

Three-Point

$$\frac{O+ML+P}{3}$$

$$\frac{\$4,000+\$8,000+\$15,000}{3} = \frac{\$27,000}{3} = \$9,000$$

PERT

$$\frac{O+(4ML)+P}{6}$$

$$\frac{\$4,000+(4*\$8,000)+\$15,000}{6} = \frac{\$51,000}{6} = \$8,500$$