

The Point Estimate is Not the Point!



International Cost Estimating & Analysis Association
Professional Development & Training Workshop

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Agenda

Cost Roles

- Status Quo
- Influencer
- Communicator
- Anticipator

Status Quo Roles

Number Cruncher

- Validate budget
- Funding barometer
- Ancillary to S&T

Soothsayer

- Knower of all cost
- Short order number cook

The Truth

An Estimate is a Story

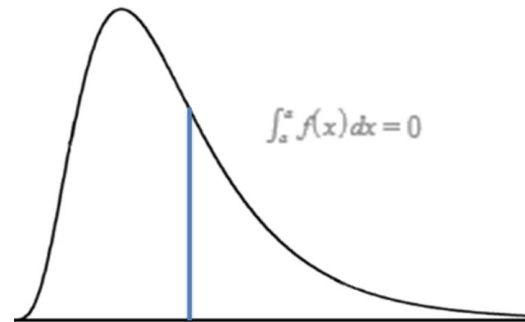
- Detailed & methodical
- Documented & objective
- Series of assumptions
- Data driven
- Validated with relevant cross checks
- Written with math and statistics

A Conditional Story

- Snapshot in time
- Caveated to be true

Value Beyond Numbers

- Cost driver relationships
- Explore trade spaces



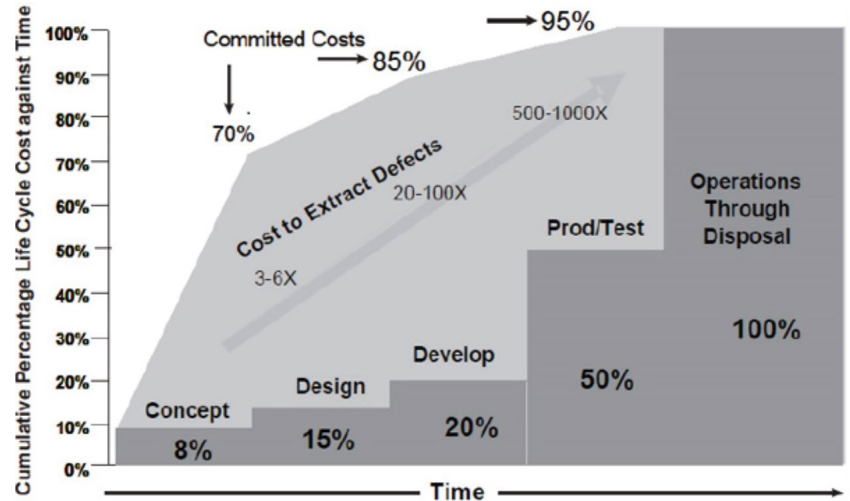
Influencer

Quantitative Sounding Board

- S&T Feedback loop
 - Planning
 - Engineering design
 - Life cycle cost implications

- Influence S&T
 - Material selections
 - Demo configurations
 - Schedule & budget planning

- Value beyond number
 - Inform decisions
 - Clarify trade spaces



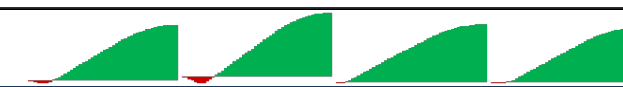
Communicator

Lost in Translation

- Sprawling spreadsheets
- Bottom line up front
 - More to the story

Louder than Numbers

- Visual data
- Know the audience
- Adapt charts & graphs



	Break Even	2029	2032	2024	2026
	Status Quo Baseline	Alternative 1	Alternative 2	Alternative 3	Alternative 4
2021		(\$594,909)	(\$1,607,283)	(\$57,113)	(\$156,541)
2022		(\$2,539,442)	(\$4,991,018)	(\$1,686,103)	(\$1,444,121)
2023		(\$4,366,191)	(\$9,021,660)	(\$1,699,981)	(\$2,583,048)
2024		(\$5,954,981)	(\$13,798,218)	\$578,327	(\$2,443,200)
2025		(\$6,678,531)	(\$17,408,775)	\$5,141,827	(\$1,538,175)
2026		(\$6,540,487)	(\$19,858,295)	\$9,695,818	\$128,813
2027		(\$5,544,485)	(\$21,151,726)	\$14,240,322	\$2,554,562
2028		(\$3,661,403)	(\$21,206,683)	\$18,775,358	\$5,748,263
2029		\$ 307,794.83	(\$16,821,025)	\$23,300,945	\$10,273,850
2030		\$5,367,459	(\$10,111,113)	\$27,817,103	\$14,790,008
2031		\$10,416,582	(\$3,415,181)	\$32,323,851	\$19,296,757
2032		\$15,455,185	\$3,266,801	\$36,821,211	\$23,794,116
2033		\$20,483,290	\$9,934,861	\$41,309,200	\$28,282,105

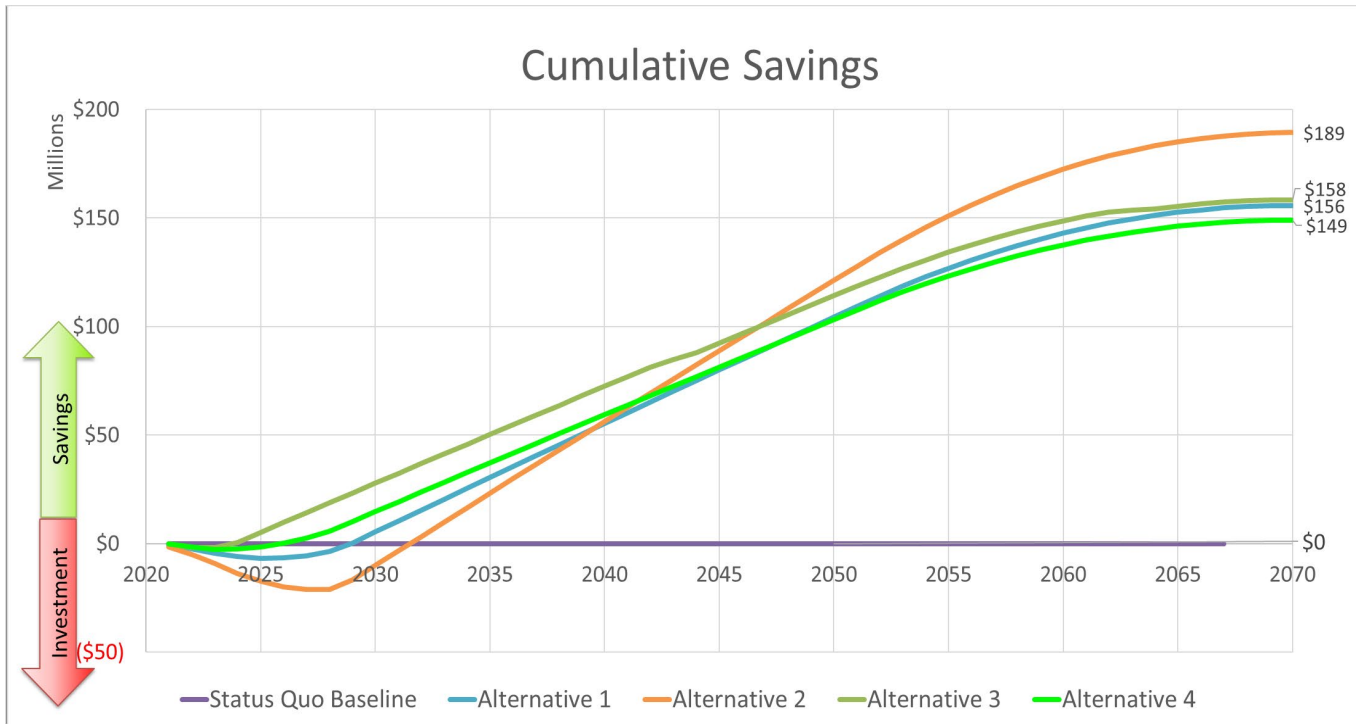
Communicator

Adapting Visual Aids

- Tailor to area of interest
- Outside the box

Stakeholder Questions

- Investment / savings?
- How long to break even?



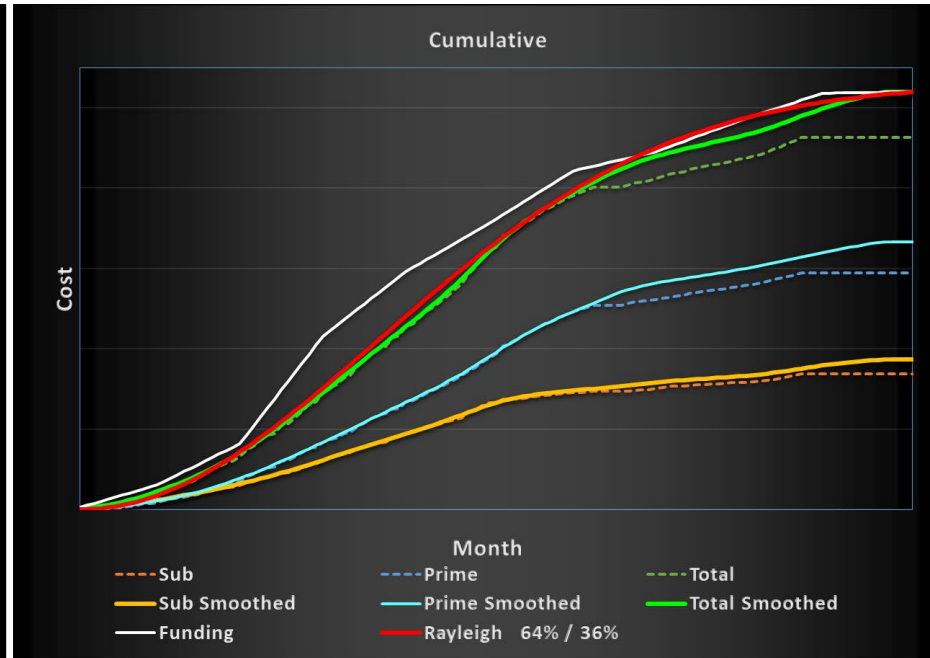
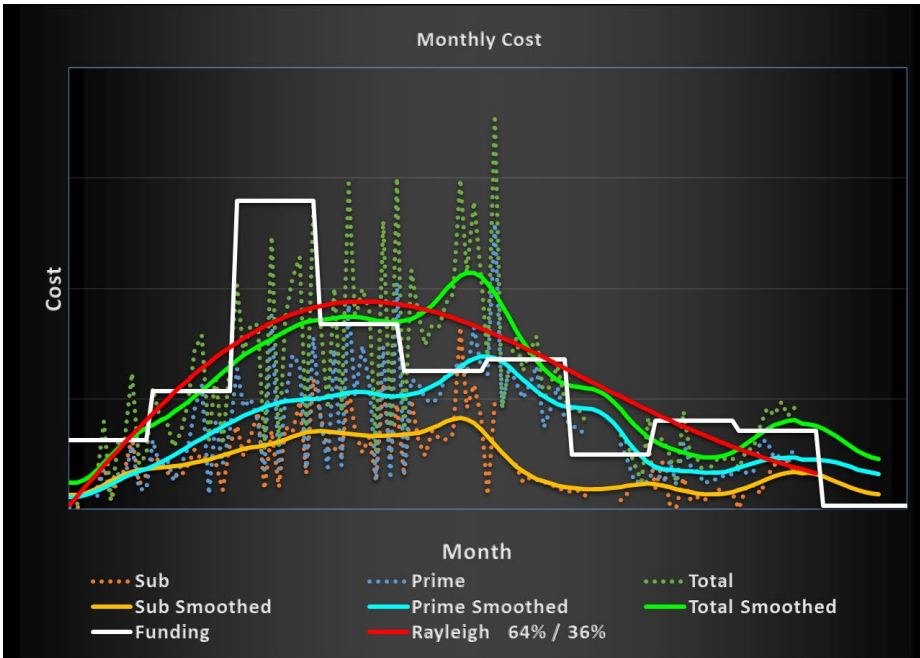
Communicator

Demystify the Process

- Phasing the point estimate
 - Analogous program!
 - Front loaded 70% / 30%

Phasing Costs?

- Representative of S&T?



Anticipator

Build Elastic Tools

- Smarter not harder
 - Avoid spaghetti math
 - Anticipate
 - Changes
 - Questions
 - Excursions
- Be creative
 - Outline problems
 - Sketch logic tree
 - Exploit patterns
- Simplicity
 - Consistent brush strokes
 - Uncomplicated examples
 - Sanity checks for confidence

Anticipate - Communicate - Influence

Framework

- Parametric relationships
- Flexibility
- Visual data

Real Time Inputs

- Translate ideas
- Explore trade space

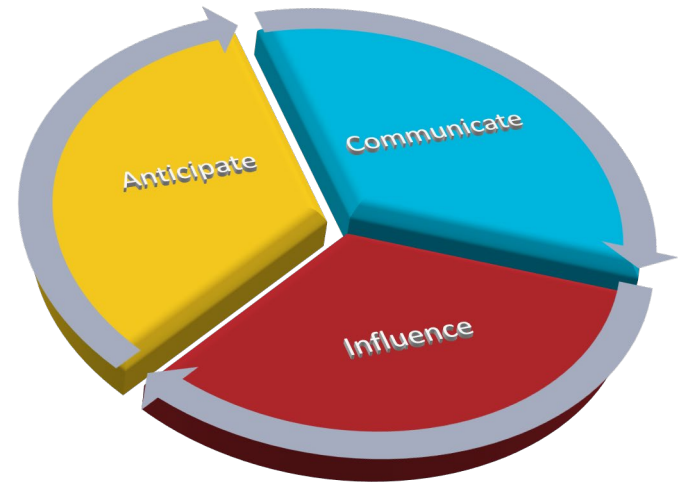
Cross Checks for Confidence

- Math not magic
- Declutter formulas
- Implement Poka-yokes

Summary

Quantitative Sounding Board

- Influence decisions with credible rigorous analysis
- Communicate clearly, early, and often
- Anticipate change
- Add value beyond the estimate



Discussion