# DYNAMIC PROGRAM SCHEDULE, COST AND RETURNS ANALYSIS

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#### WHAT WE ARE GOING TO DO AND WHY

We are going to evaluate a program in terms of the schedule, costs, fee structure and estimated returns.

We want to know if we are going to make money.

ACKNOWLEDGEMENT: The approach within this presentation has been inspired by the teachings of Dr. Sam Savage and my demonstration will use Risk Solver<sup>TM</sup> software available through Frontline Systems; other useful software is @Risk from Palisade Corporation and Oracle Crystal Ball.

#### HOW WE ARE GOING TO DO IT AND WHY

First, using a deterministic approach for estimating factors, using expected or desired point value assumptions.

Second, using a stochastic approach for estimating factors, using a variety of stochastic assumptions.

We want to know if we are going to make money; AND how sensitive our outcome may be based on our assumptions and the unknown uncertainties.

#### **OVERVIEW** OF THE PROGRAM

The Program: Requirements

Provide a recommendation with supporting analysis regarding whether or not a proposed organizational change should be implemented.

We have three interim deliverables due at 150, 180, 210 days respectively with a final deliverable due in 360 days.

#### OVERVIEW OF THE PROGRAM CONTINUED

The Program: Fee Determination

The first deliverable is due in 150 days and is worth \$100K. The second deliverable is due in 180 days and is worth \$150K. The third deliverable is due in 210 days and is worth \$200K. The final deliverable is due in 360 days and is worth \$550K. Each interim deliverable is subject to a 10% bonus if more

than 20 days early and a 10% penalty if more than 10 days late.

The final deliverable is subject to a 10% bonus if more than 60 days early; a 5% bonus if more than 30 days early; a 10% penalty if more than 20 days late; and a 25% penalty if more than 40 days late.

5 of 11

#### SOME QUESTIONS...

How long will it take?

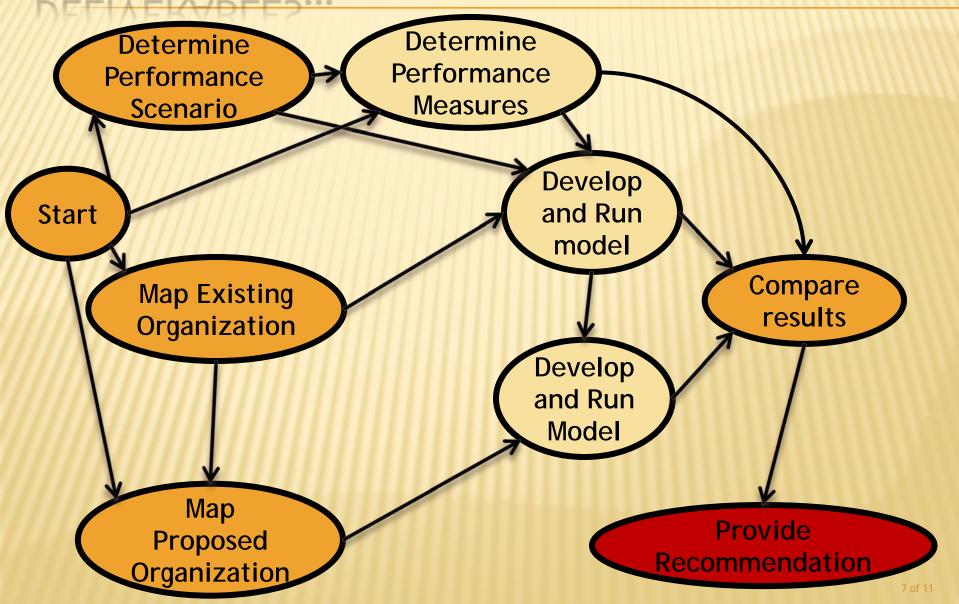
How much of the potential fee will we earn?

How much will it cost?

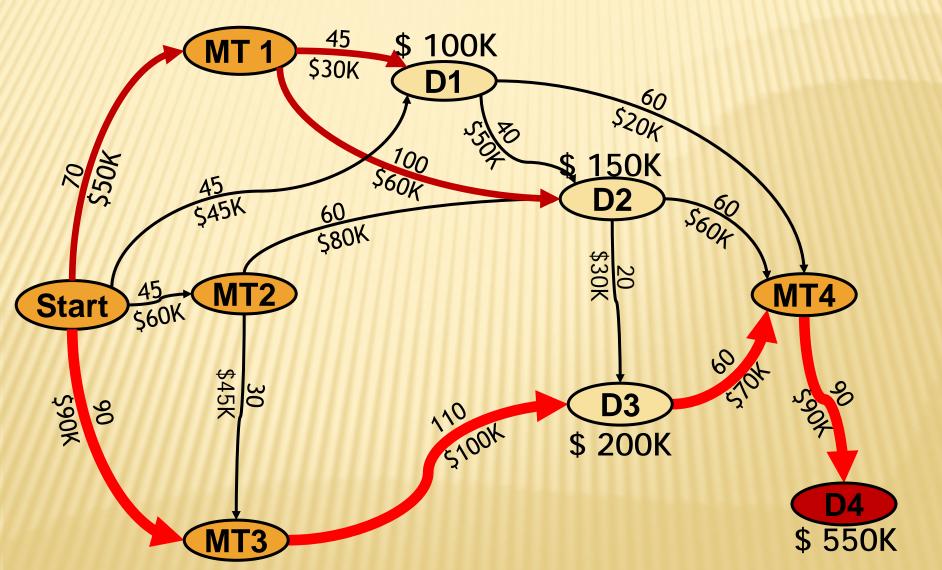
Ultimately - How much money will we make?

And...are you sure?

## HERE ARE THE MAIN TASKS AND DELIVERABLES...



Here they are again, identified as Main Tasks (MT) and Deliverables (D) with estimates for times and costs; base fee amounts for each deliverable as well as the critical path identified for each deliverable and overall...



### DETERMINISTIC EVALUATION...

The expected time and anticipated fee for each deliverable and expected overall program cost are therefore...

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D1 - 115 Days = $100K (No bonus or penalty)
D2 - 170 Days = $150K (No bonus or penalty)
D3 - 200 Days = $200K (No bonus or penalty)
D4 - 350 Days = $550K (No bonus or penalty)
Total Fee = $1M (No bonus or penalty)
Total cost = sum of costs for all tasks and
  deliverables = $880K
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#### CONCLUSION...

We will finish on time for each deliverable and overall, we will earn no bonuses but incur no penalties and we will make \$120,000 (approx. 13.6% return)

We mapped all process steps and documented all assumptions

What could go wrong?