

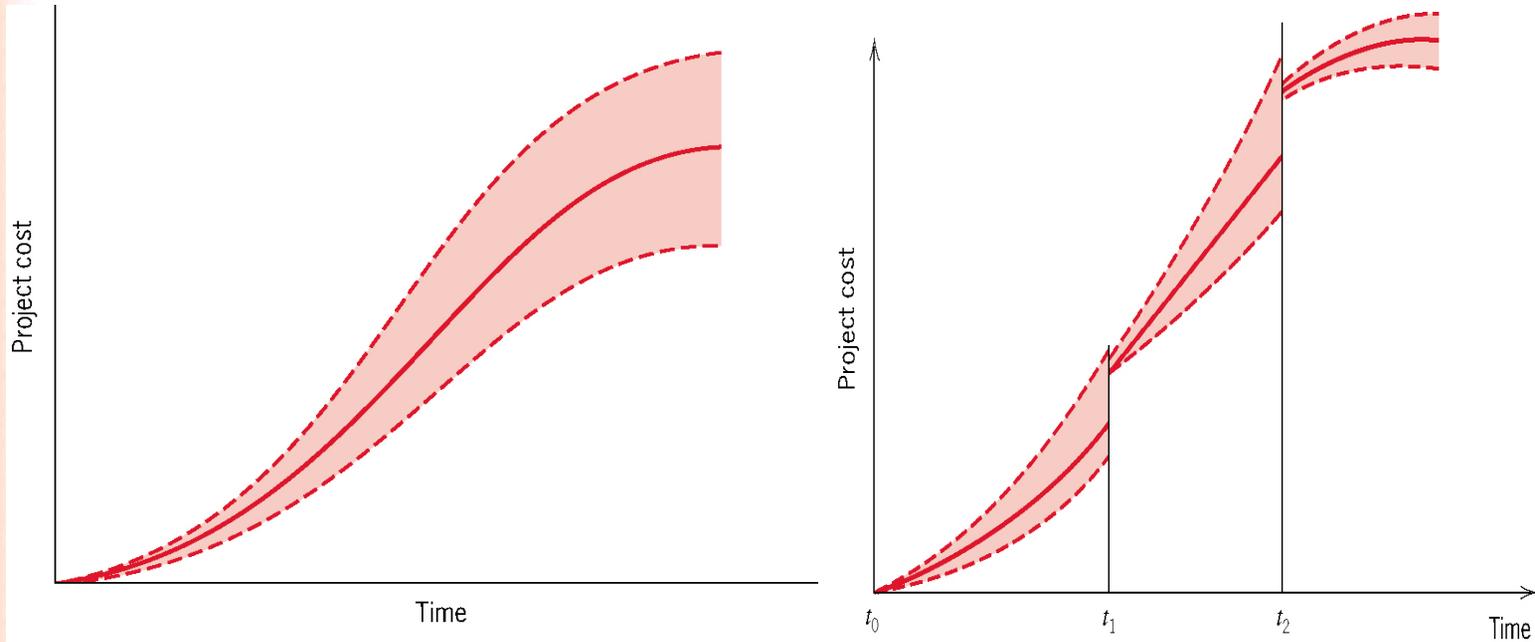
Schedule Risk



Mort Anvari
Acquisition Costing Directorate

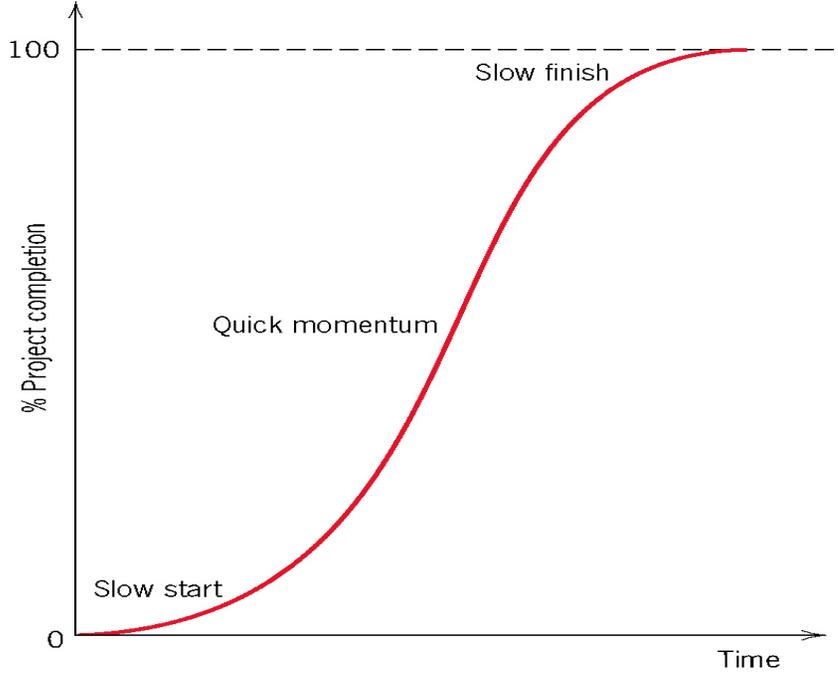
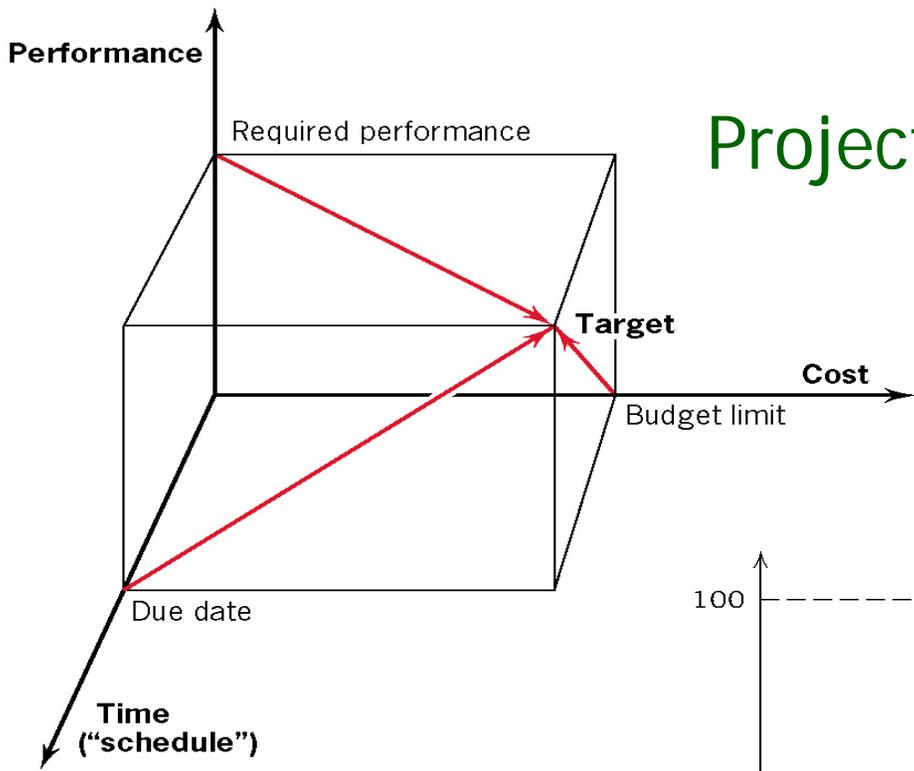
<http://www.asafm.army.mil>

When to do Risk Analysis



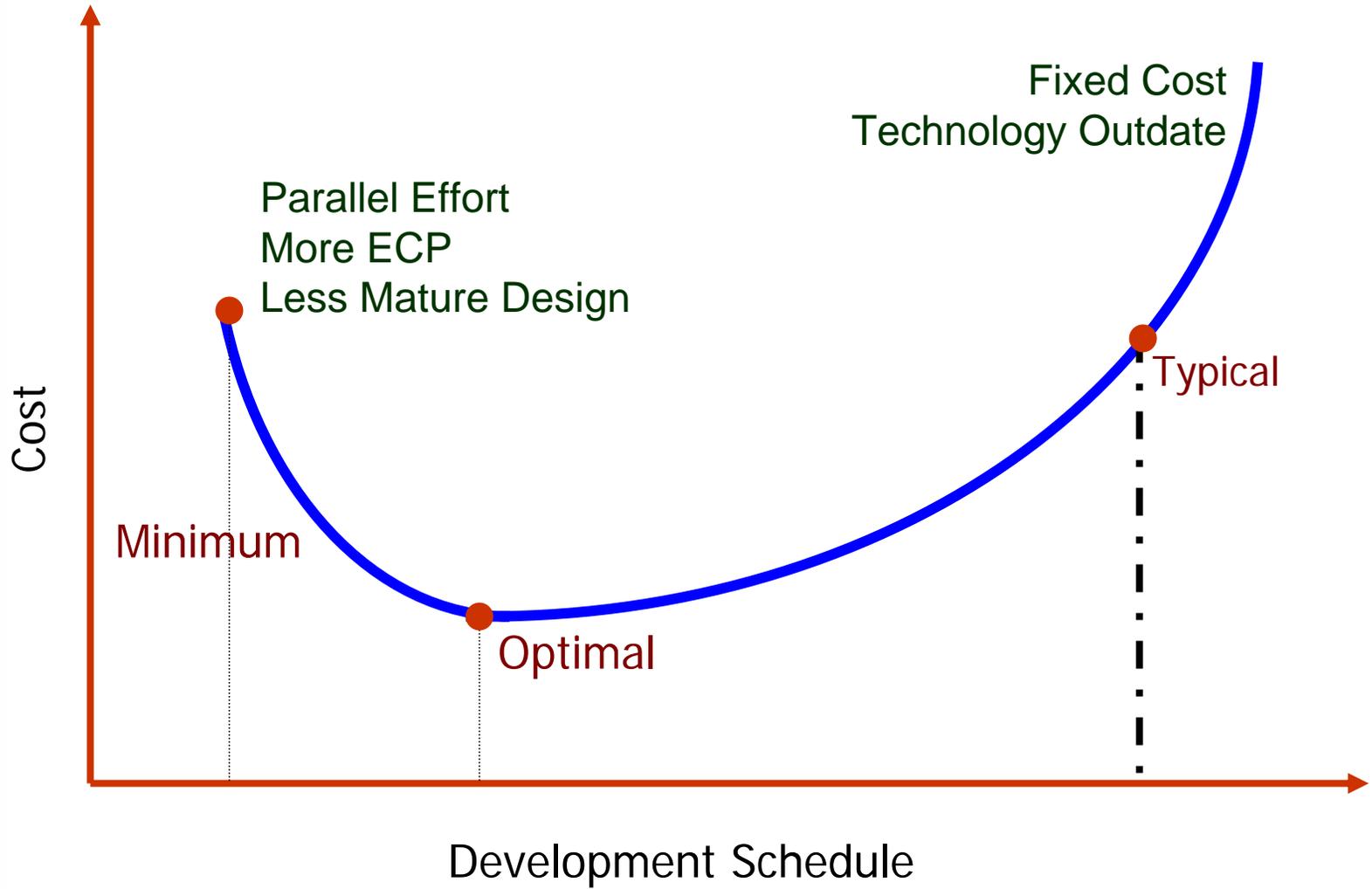
Risk analysis reduces the uncertainty between requirements and funding

Project Management

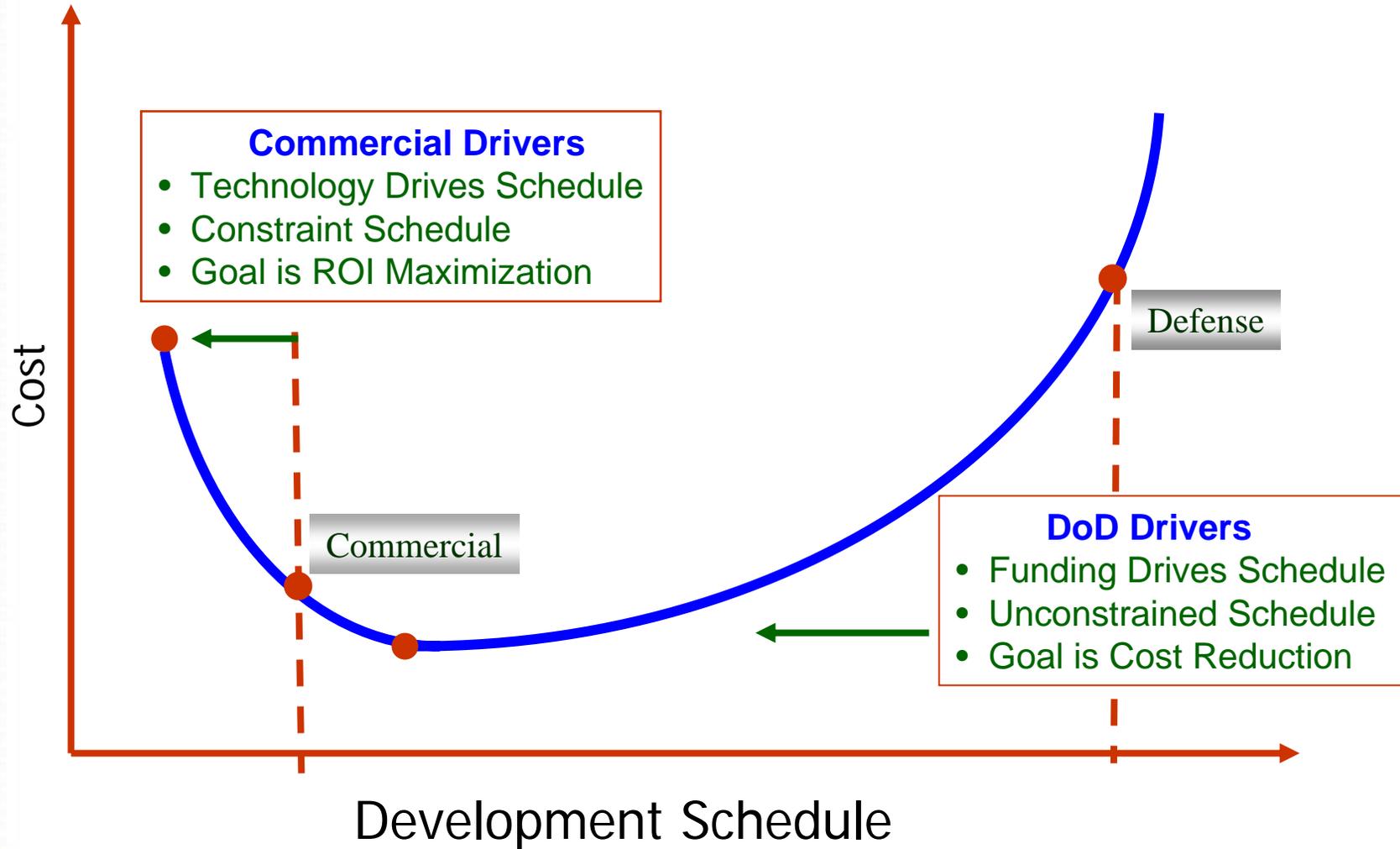


Schedule Curve

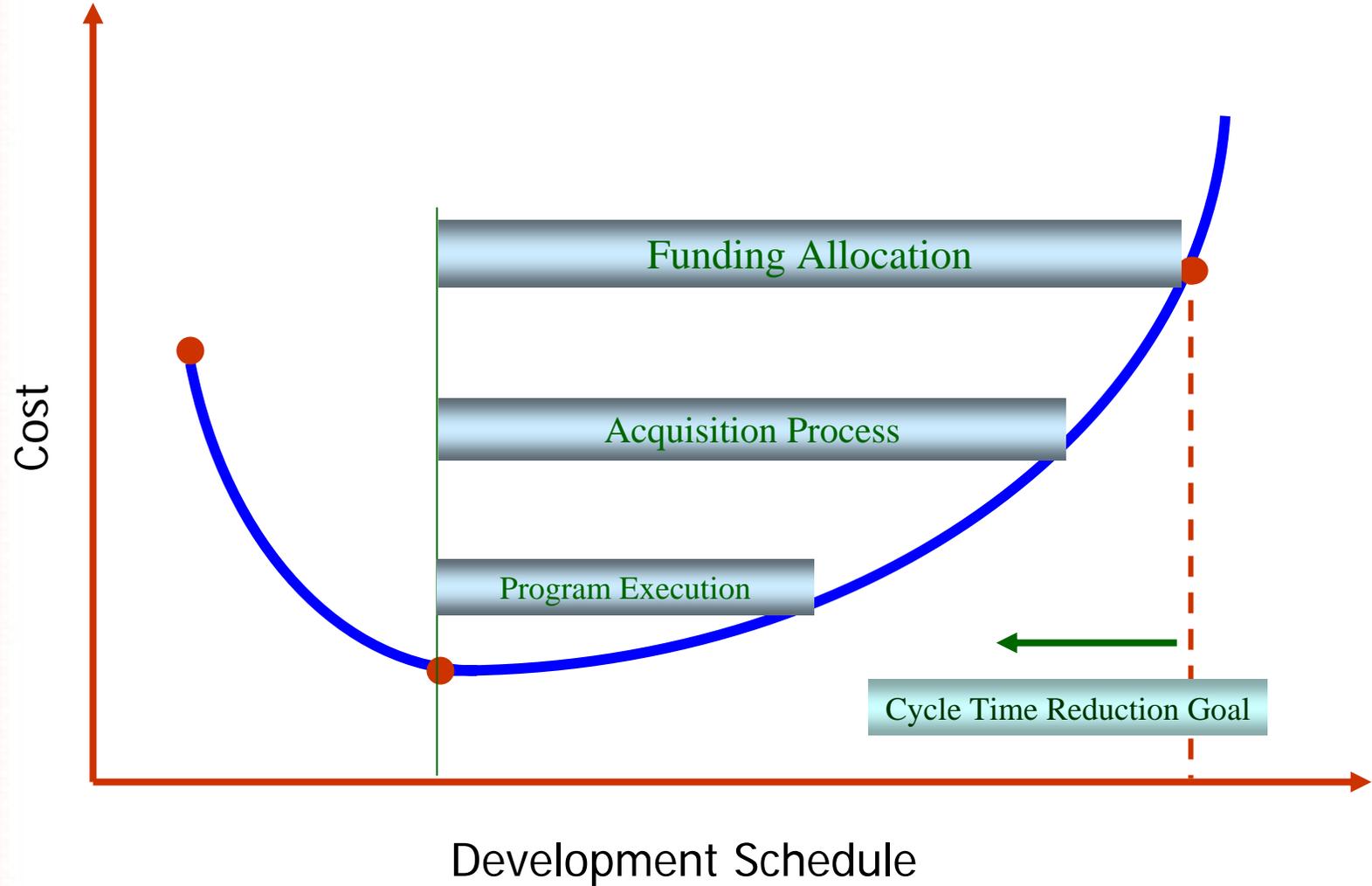
Cost Schedule Curve



Schedule Goals



DoD Program Schedule Drivers

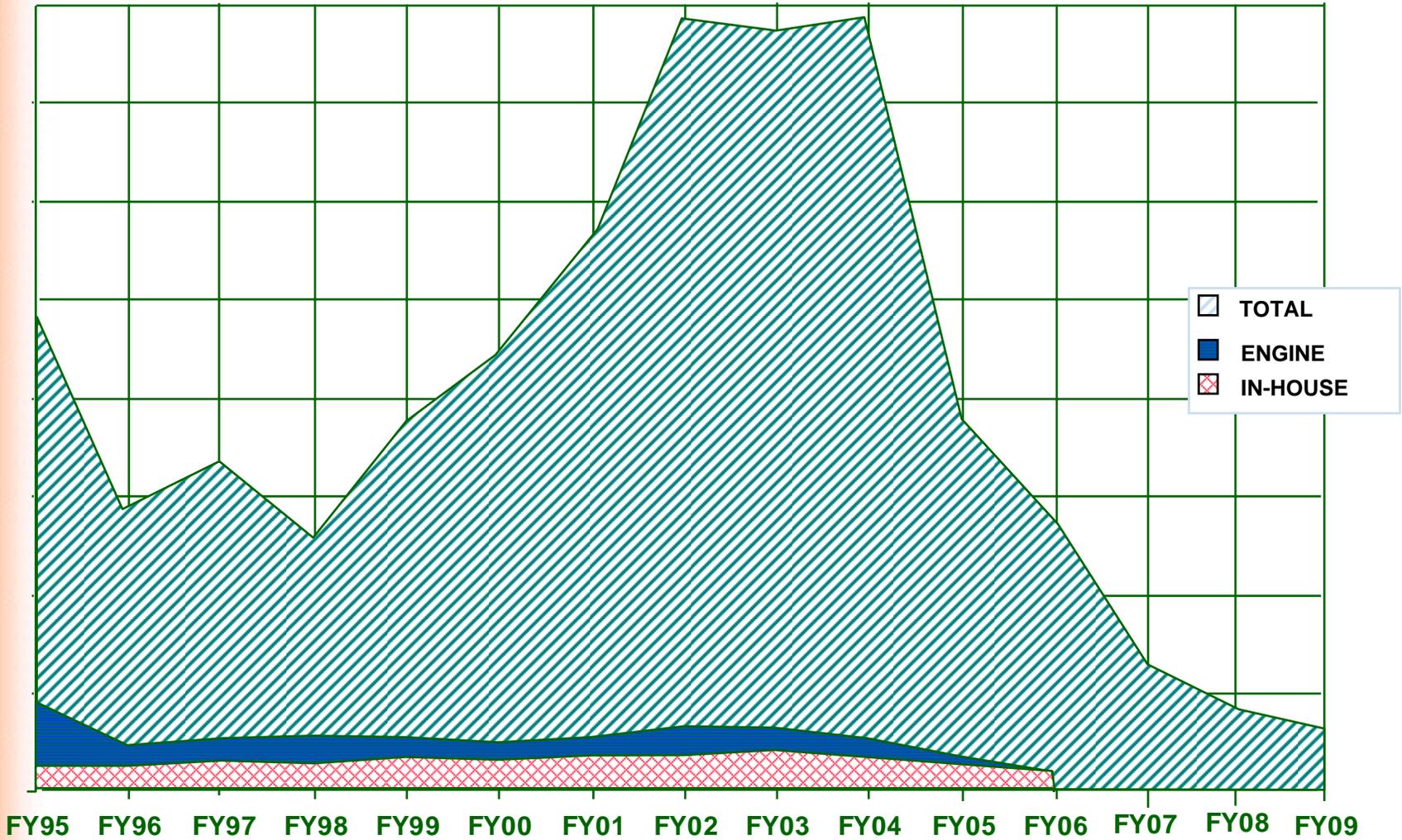


Development Schedule

Mean Cycle Time to IOC

<u>DoD</u>	
Pre-1992 Starts	132 months (11 years)
Post-1992 Starts	89 months (7.4 years)
F-22	216 months (18 years) IOC 2004
Comanche	264 months (22 years) IOC 2006
<u>Commercial</u>	
Boeing 777	54 months (4.5 Years)

Example of R&D Funding Profile



Historical Perspective

78% of Programs had less than 10% Schedule Slippage

92% of Programs BAFO had Raised no Issue with the Government Proposed Schedule

- Program Managers' Priority**
- Superior Performance
 - Low Acquisition Cost
 - Low Operation Cost
 - Shortened Schedule

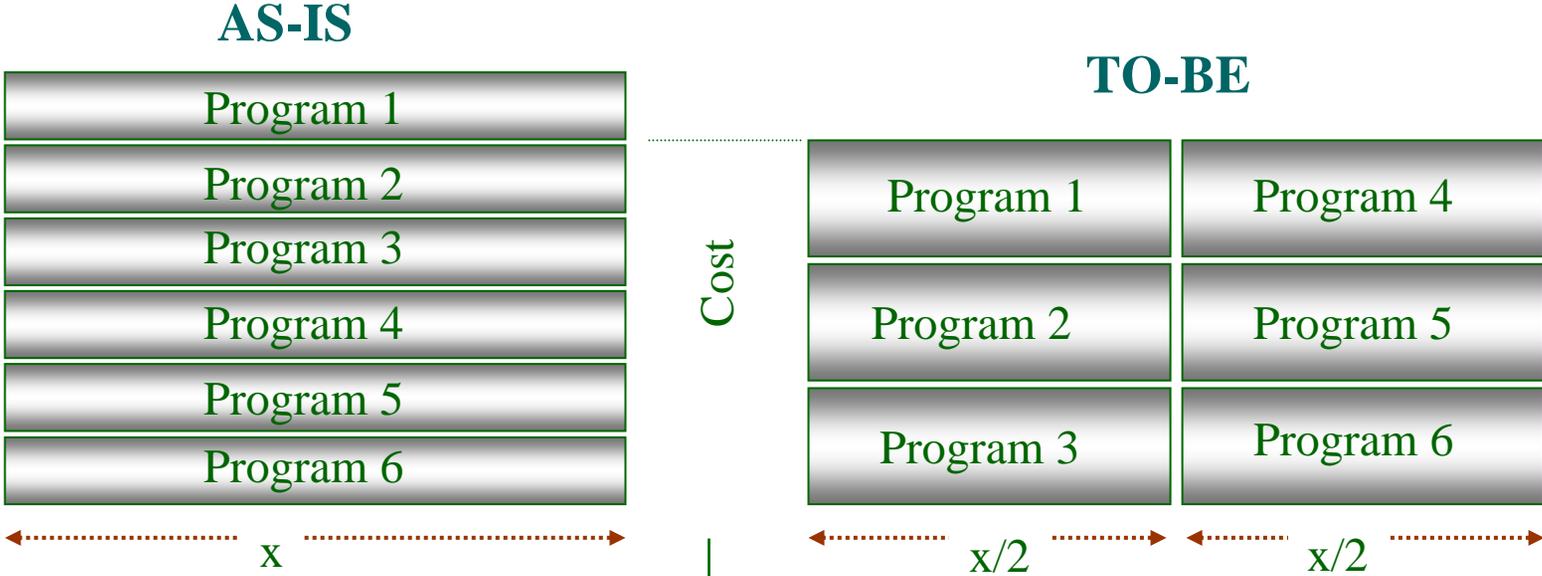
Shortening the Cycle Time Provides Opportunity for Cost Reduction

Reasons for Risk

Technical	Programmatic	Cost	Schedule
Physical Properties	Material Availability	Sensitivity to Assumptions	Degree of Concurrency
Material properties	Skill Requirement	Sensitivity to Technical Risk	<i>Sensitivity to Technical Risk</i>
Software Complexity	Environmental Impact	Sensitivity to Programmatic Risk	<i>Sensitivity to Programmatic Risk</i>
Integration Interface	Contractors Stability	Sensitivity to Schedule Risk	Number of Critical Path
Requirement Changes	<i>Funding Profile</i>	Estimating Errors	Estimating Errors
Operational Environment	Political Advocacy		<i>Funding Profile</i>

Reduced Cycle Time Opportunity

Business Case



Cycle Time Result From:

- Starting Programs too Soon
- Starting Too many Programs
- Inefficient Acquisition Process

Reduced Cycle Time will Result In:

- Fielding of Newer Technology
- Lower Cost per Project
- Reduced Exposure to Annual Funding Reduction

Summary

- Funding Allocation Puts more Constraint on the Program Schedules than Acquisition Process and Program Execution
- Shortening the Cycle Time Provides Cost Reduction Opportunity with Greater Operational Capability
- Cost Schedule Risk Analysis Tools and Techniques Should be Utilized to Demonstrate the Effect of Schedule Trade-off