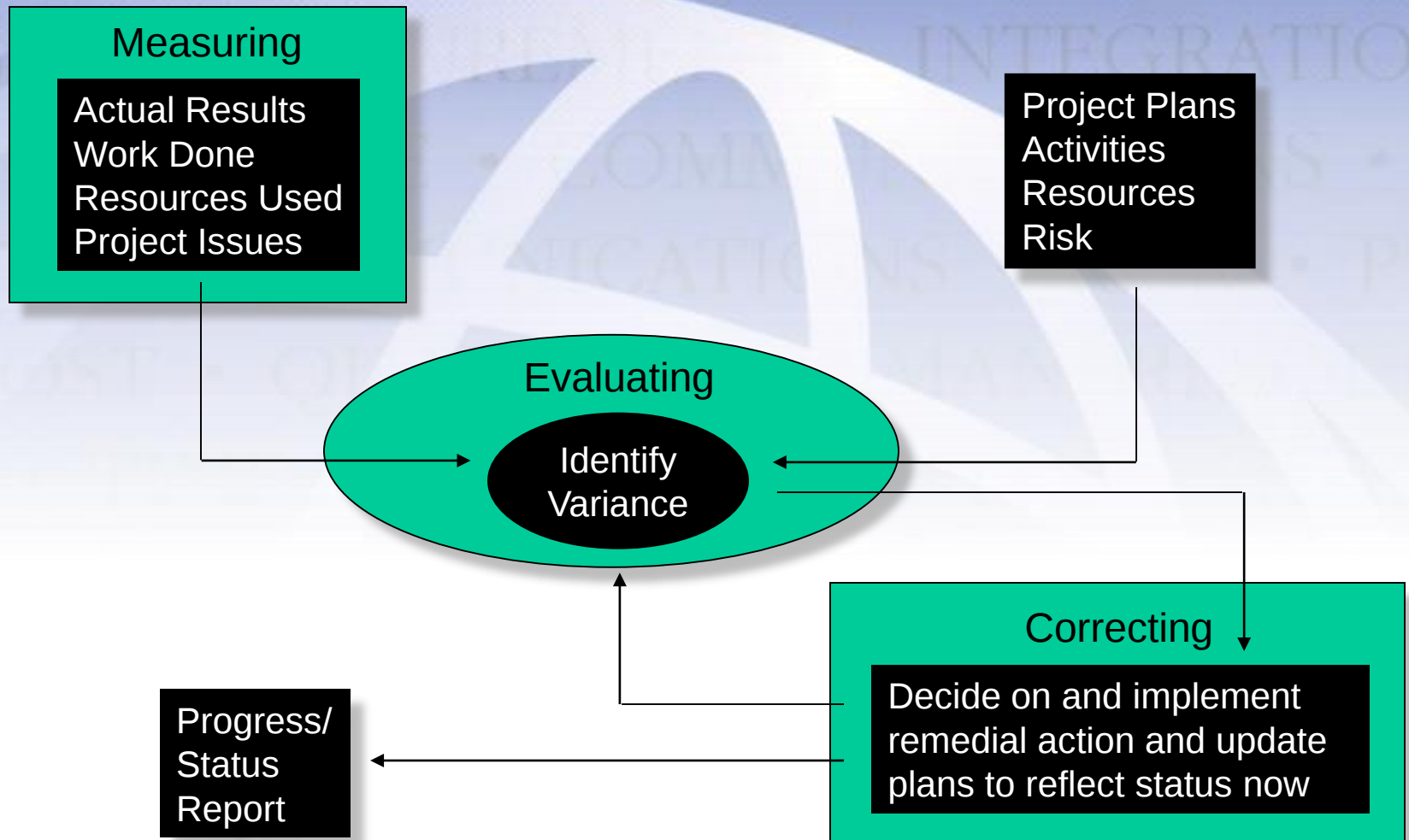


Mod. 5: Project Monitoring & Evaluation



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Performance-Based Evaluation



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Progress Valuation

- ◆ 50 – 50 Rule
- ◆ 0 – 100 Rule
- ◆ Detailed Reporting
- ◆ Milestone Reporting



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Applying the 50-50 Rule

	Begun	Ended	Total
Task A: \$ 100			
	\$ 50	\$ 50	\$ 100
Task B: \$ 100			
	\$ 50	\$ 0	\$ 50
	Earned Value		\$ 150

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Applying the 0-100 Rule

	Begun	Ended	Total
Task A: \$ 100			
	\$ 0	\$ 100	\$ 100
Task B: \$ 100			
	\$ 0	\$ 0	\$ 0
	Earned Value		\$ 100

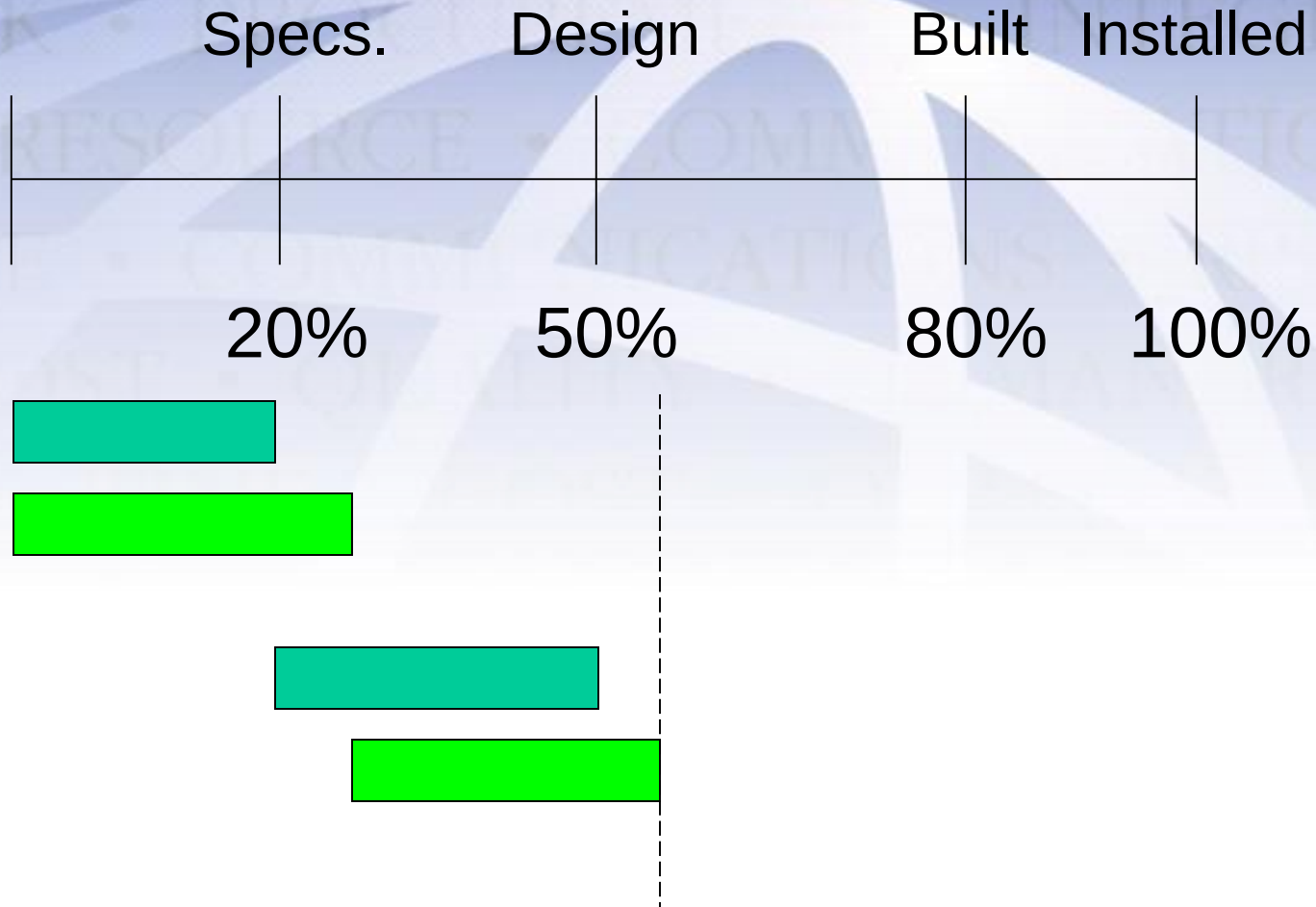
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Detailed Reporting

	Begun	Ended (Now)	Total
Task A: \$ 100			
	\$ 0	\$ 100	\$ 100
Task B: \$ 100			
	\$ 0	\$ 65	\$ 65
	Earned Value		\$ 165

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Milestone Reporting



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Cumulative Planned Value

Item	Activities	Cost	% Wt.	W1	W2	W3	W4	W5	W6	W7	W8
1	Facilitators										
1.1	Select Consultants	1000	10%	500	500						
1.2	Hire Consultants	3000	30%			3000					
1.3	Prepare Training Materials	1000	10%			125	250	250	250	125	
2	Participants										
2.1	Identify Training Participants	200	2%	200							
2.2	Send-out Invitation Letters	100	1%		100						
3	Itinerary										
3.1	Arrange Venue and Training Date	100	1%	100							
3.2	Make Travel Arrangement	1000	10%		500	500					
3.3	Make Hotel Reservation	2000	20%			2000					
4	Equipment & Materials										
4.1	Rent Training Equipment	1000	10%								1000
4.2	Reproduce Training Materials	500	5%							250	250
Total		9900	100%								

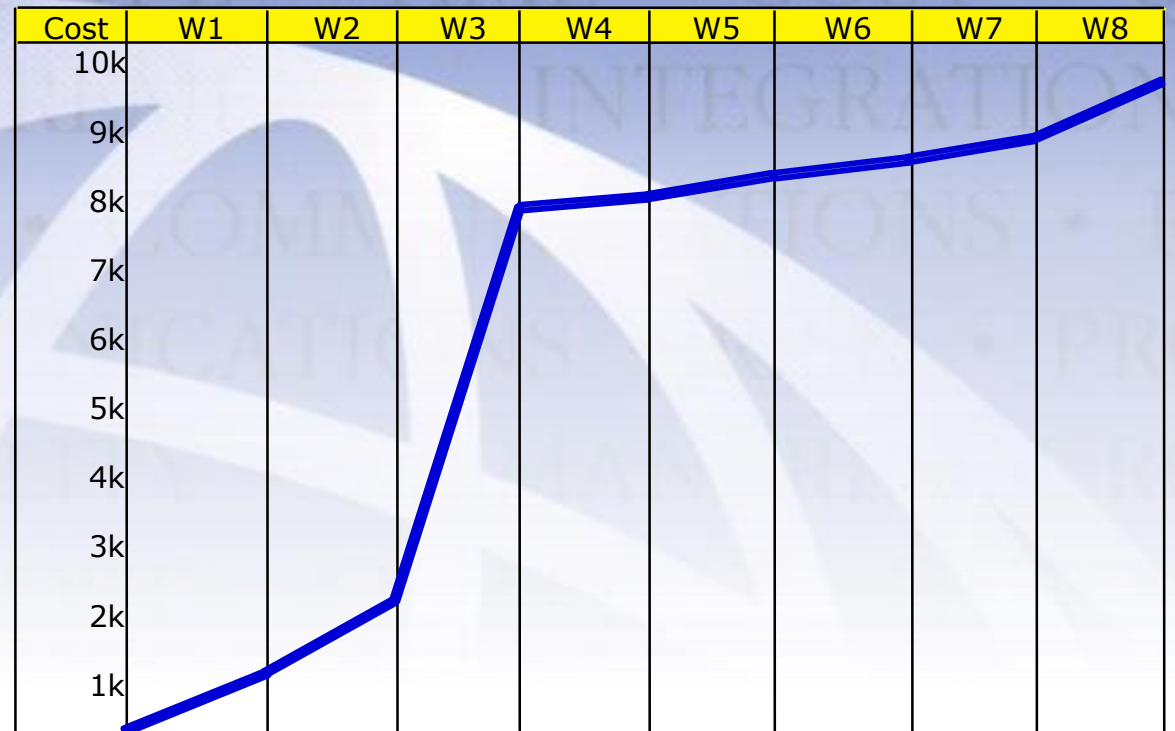
Planned Weekly Cost	800	1100	5625	250	250	250	375	1250
Cum. Planned Wkly Cost	800	1900	7525	7775	8025	8275	8650	9900

Earned Value Weekly Cost
Cum. Earned Value Wkly Cost

Actual Weekly Cost
Cum. Actual Wkly Cost

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PV Curve



Planned Weekly Cost
Cum. Planned Wkly Cost

800	1100	5625	250	250	250	375	1250
800	1900	7525	7775	8025	8275	8650	9900

Earned Value Weekly Cost
Cum. Earned Value Wkly Cost

Actual Weekly Cost
Cum. Actual Wkly Cost

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Wk1 Accomplishment Report

Item	Activities	Cost	% Wt.	W1	W2	W3	W4	W5	W6	W7	W8
1	Facilitators										
1.1	Select Consultants	1000	10%	500	500						
1.2	Hire Consultants	3000	30%			3000					
1.3	Prepare Training Materials	1000	10%			125	250	250	250	125	
2	Participants										
2.1	Identify Training Participants	200	2%	200							
2.2	Send-out Invitation Letters	100	1%		100						
3	Itinerary										
3.1	Arrange Venue and Training Date	100	1%	100							
3.2	Make Travel Arrangement	1000	10%		500	500					
3.3	Make Hotel Reservation	2000	20%			2000					
4	Equipment & Materials										
4.1	Rent Training Equipment	1000	10%								1000
4.2	Reproduce Training Materials	500	5%							250	250
Total		9900	100%								

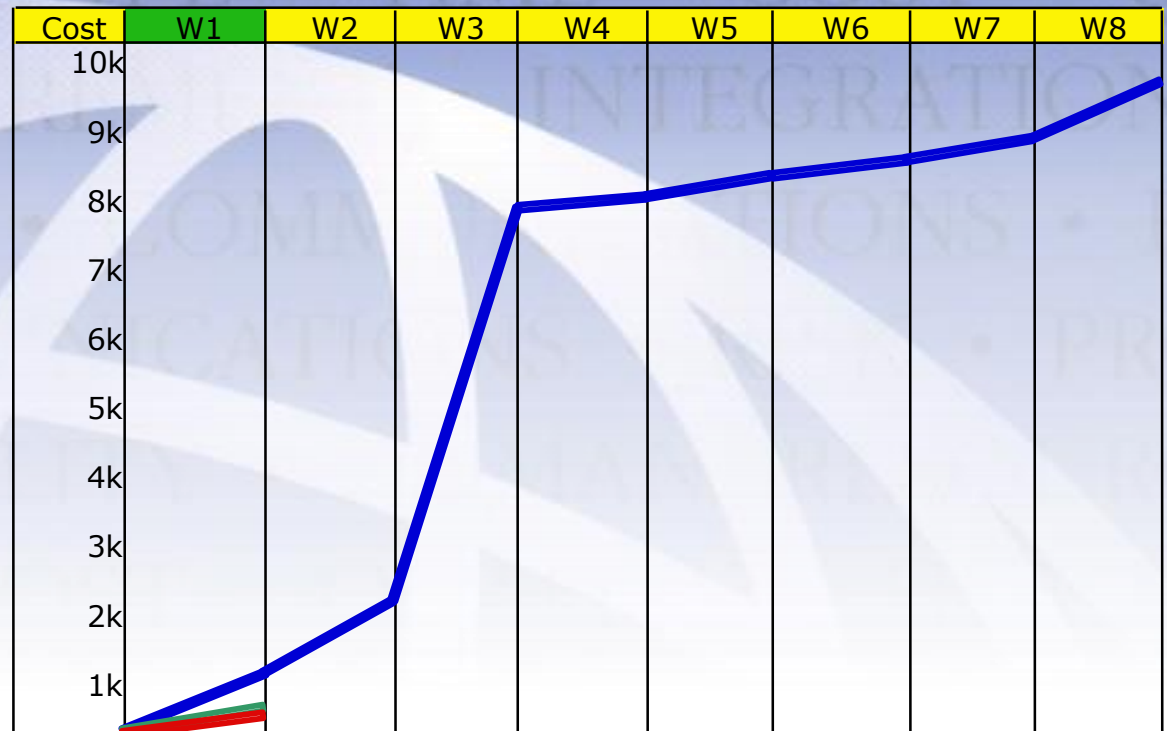
Planned Weekly Cost	800	1100	5625	250	250	250	375	1250
Cum. Planned Wkly Cost	800	1900	7525	7775	8025	8275	8650	9900

Earned Value Weekly Cost	300
Cum. Earned Value Wkly Cost	300

Actual Weekly Cost	275
Cum. Actual Wkly Cost	275

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Wk1 Earned Value Curve



Planned Weekly Cost
Cum. Planned Wkly Cost

800	1100	5625	250	250	250	375	1250
800	1900	7525	7775	8025	8275	8650	9900

Earned Value Weekly Cost
Cum. Earned Value Wkly Cost

300
300

Actual Weekly Cost
Cum. Actual Wkly Cost

275
275

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Wk2 Accomplishment Report

Item	Activities	Cost	% Wt.	W1	W2	W3	W4	W5	W6	W7	W8
1	Facilitators										
1.1	Select Consultants	1000	10%	500	500						
1.2	Hire Consultants	3000	30%			3000					
1.3	Prepare Training Materials	1000	10%			125	250	250	250	125	
2	Participants										
2.1	Identify Training Participants	200	2%	200							
2.2	Send-out Invitation Letters	100	1%		100						
3	Itinerary										
3.1	Arrange Venue and Training Date	100	1%	100							
3.2	Make Travel Arrangement	1000	10%		500	500					
3.3	Make Hotel Reservation	2000	20%			2000					
4	Equipment & Materials										
4.1	Rent Training Equipment	1000	10%								1000
4.2	Reproduce Training Materials	500	5%							250	250
Total		9900	100%								

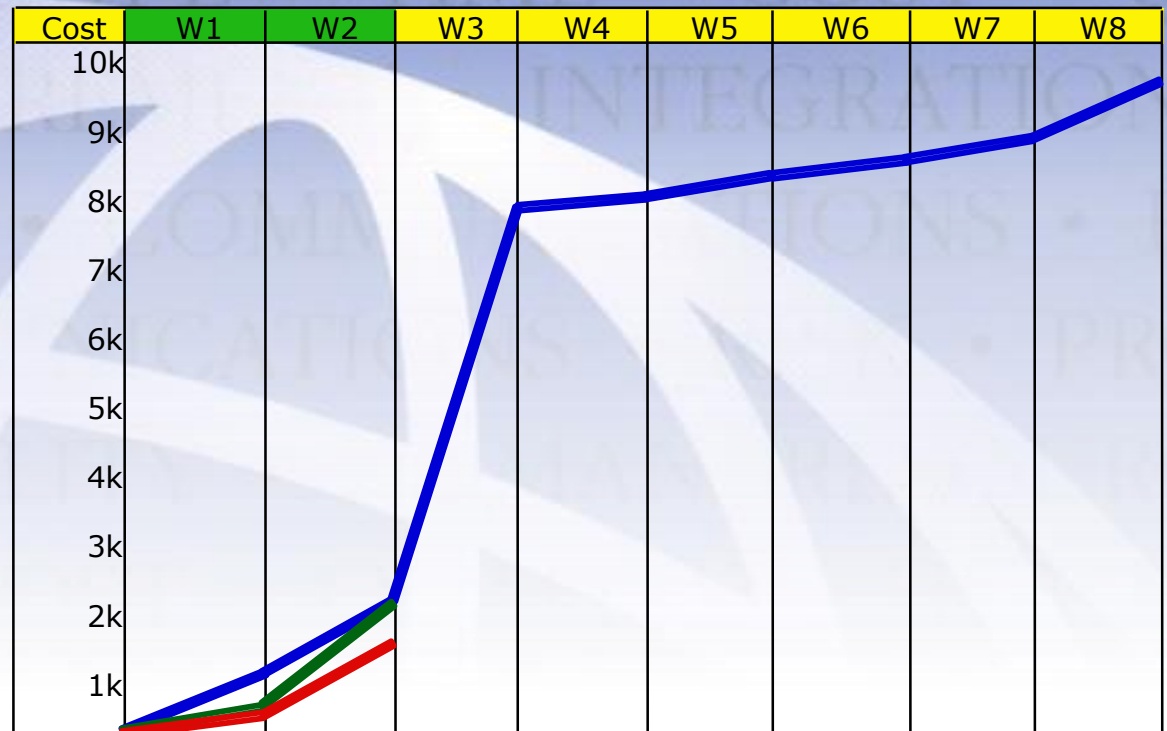
Planned Weekly Cost	800	1100	5625	250	250	250	375	1250
Cum. Planned Wkly Cost	800	1900	7525	7775	8025	8275	8650	9900

Earned Value Weekly Cost	300	1600						
Cum. Earned Value Wkly Cost	300	1900						

Actual Weekly Cost	275	1500						
Cum. Actual Wkly Cost	275	1775						

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Wk2 Earned Value Curve



Planned Weekly Cost
Cum. Planned Wkly Cost

800 1100 5625 250 250 250 375 1250
800 1900 7525 7775 8025 8275 8650 9900

Earned Value Weekly Cost
Cum. Earned Value Wkly Cost

300 1600
300 1900

Actual Weekly Cost
Cum. Actual Wkly Cost

275 1500
275 1775

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Wk3 Accomplishment Report

Item	Activities	Cost	% Wt.	W1	W2	W3	W4	W5	W6	W7	W8
1	Facilitators										
1.1	Select Consultants	1000	10%	500	500						
1.2	Hire Consultants	3000	30%			3000					
1.3	Prepare Training Materials	1000	10%			125	250	250	250	125	
2	Participants										
2.1	Identify Training Participants	200	2%	200							
2.2	Send-out Invitation Letters	100	1%		100						
3	Itinerary										
3.1	Arrange Venue and Training Date	100	1%	100							
3.2	Make Travel Arrangement	1000	10%		500	500					
3.3	Make Hotel Reservation	2000	20%			2000					
4	Equipment & Materials										
4.1	Rent Training Equipment	1000	10%								1000
4.2	Reproduce Training Materials	500	5%							250	250
Total		9900	100%								

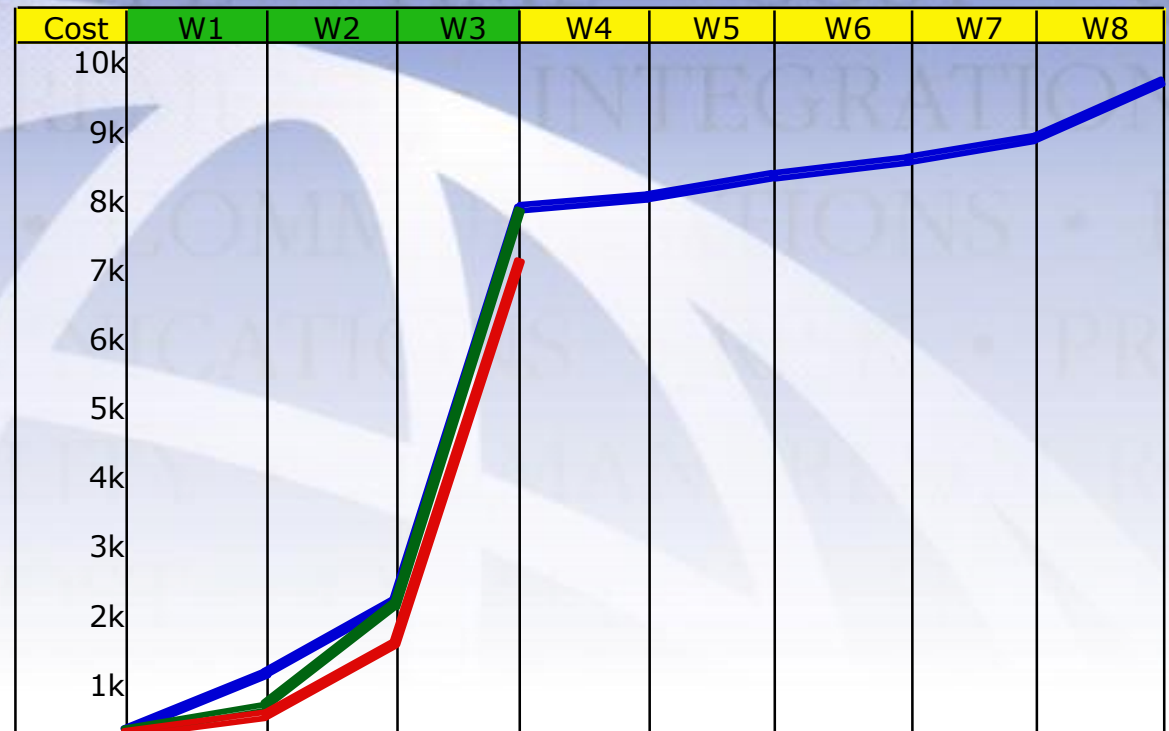
Planned Weekly Cost	800	1100	5625	250	250	250	375	1250
Cum. Planned Wkly Cost	800	1900	7525	7775	8025	8275	8650	9900

Earned Value Weekly Cost	300	1600	5625					
Cum. Earned Value Wkly Cost	300	1900	7525					

Actual Weekly Cost	275	1500	5725					
Cum. Actual Wkly Cost	275	1775	7500					

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Wk3 Earned Value Curve



Planned Weekly Cost
Cum. Planned Wkly Cost

800 1100 5625 250 250 250 375 1250
800 1900 7525 7775 8025 8275 8650 9900

Earned Value Weekly Cost
Cum. Earned Value Wkly Cost

300 1600 5625
300 1900 7525

Actual Weekly Cost
Cum. Actual Wkly Cost

275 1500 5725
275 1775 7500

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Wk4 Accomplishment Report

Item	Activities	Cost	% Wt.	W1	W2	W3	W4	W5	W6	W7	W8
1	Facilitators										
1.1	Select Consultants	1000	10%	500	500						
1.2	Hire Consultants	3000	30%			3000					
1.3	Prepare Training Materials	1000	10%			125	250	250	250	125	
2	Participants										
2.1	Identify Training Participants	200	2%	200							
2.2	Send-out Invitation Letters	100	1%		100						
3	Itinerary										
3.1	Arrange Venue and Training Date	100	1%	100							
3.2	Make Travel Arrangement	1000	10%		500	500					
3.3	Make Hotel Reservation	2000	20%			2000					
4	Equipment & Materials										
4.1	Rent Training Equipment	1000	10%								1000
4.2	Reproduce Training Materials	500	5%							250	250
Total		9900	100%								

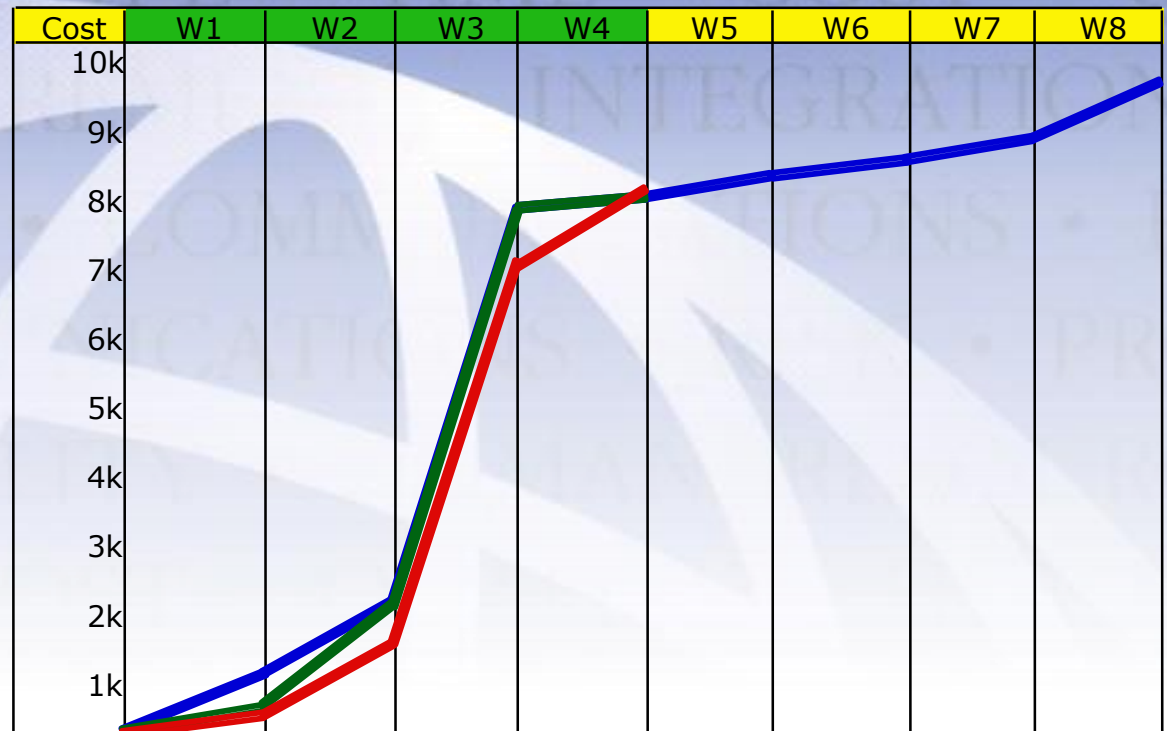
Planned Weekly Cost	800	1100	5625	250	250	250	375	1250
Cum. Planned Wkly Cost	800	1900	7525	7775	8025	8275	8650	9900

Earned Value Weekly Cost	300	1600	5625	250				
Cum. Earned Value Wkly Cost	300	1900	7525	7775				

Actual Weekly Cost	275	1500	5725	300				
Cum. Actual Wkly Cost	275	1775	7500	7800				

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Wk4 Earned Value Curve



Planned Weekly Cost
Cum. Planned Wkly Cost

800 1100 5625 250 250 250 375 1250
800 1900 7525 7775 8025 8275 8650 9900

Earned Value Weekly Cost
Cum. Earned Value Wkly Cost

300 1600 5625 250
300 1900 7525 7775

Actual Weekly Cost
Cum. Actual Wkly Cost

275 1500 5725 300
275 1775 7500 7800

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Wk5 Accomplishment Report

Item	Activities	Cost	% Wt.	W1	W2	W3	W4	W5	W6	W7	W8
1	Facilitators										
1.1	Select Consultants	1000	10%	500	500						
1.2	Hire Consultants	3000	30%			3000					
1.3	Prepare Training Materials	1000	10%			125	250	250	250	125	
2	Participants										
2.1	Identify Training Participants	200	2%	200							
2.2	Send-out Invitation Letters	100	1%		100						
3	Itinerary										
3.1	Arrange Venue and Training Date	100	1%	100							
3.2	Make Travel Arrangement	1000	10%		500	500					
3.3	Make Hotel Reservation	2000	20%			2000					
4	Equipment & Materials										
4.1	Rent Training Equipment	1000	10%								1000
4.2	Reproduce Training Materials	500	5%							250	250
Total		9900	100%								

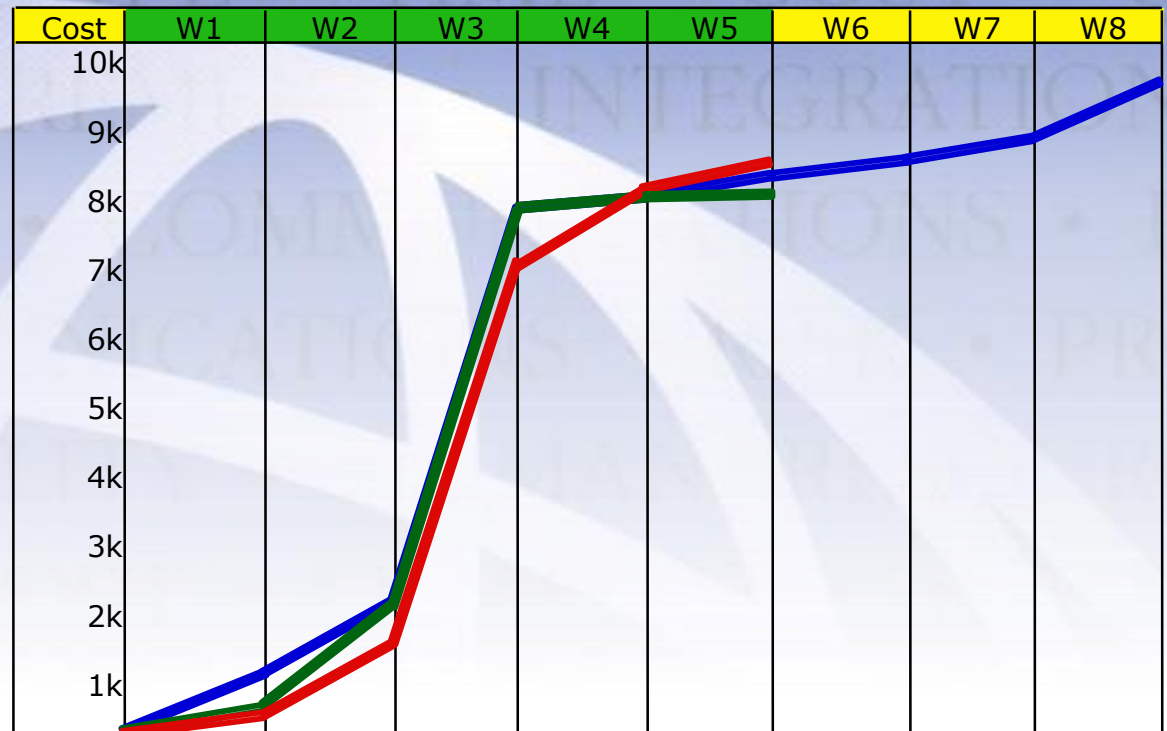
Planned Weekly Cost	800	1100	5625	250	250	250	375	1250
Cum. Planned Wkly Cost	800	1900	7525	7775	8025	8275	8650	9900

Earned Value Weekly Cost	300	1600	5625	250	0			
Cum. Earned Value Wkly Cost	300	1900	7525	7775	7775			

Actual Weekly Cost	275	1500	5725	300	300			
Cum. Actual Wkly Cost	275	1775	7500	7800	8100			

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Wk5 Earned Value Curve



Planned Weekly Cost
Cum. Planned Wkly Cost

800 1100 5625 250 250 250 375 1250
800 1900 7525 7775 8025 8275 8650 9900

Earned Value Weekly Cost
Cum. Earned Value Wkly Cost

300 1600 5625 250 0
300 1900 7525 7775 7775

Actual Weekly Cost
Cum. Actual Wkly Cost

275 1500 5725 300 300
275 1775 7500 7800 8100

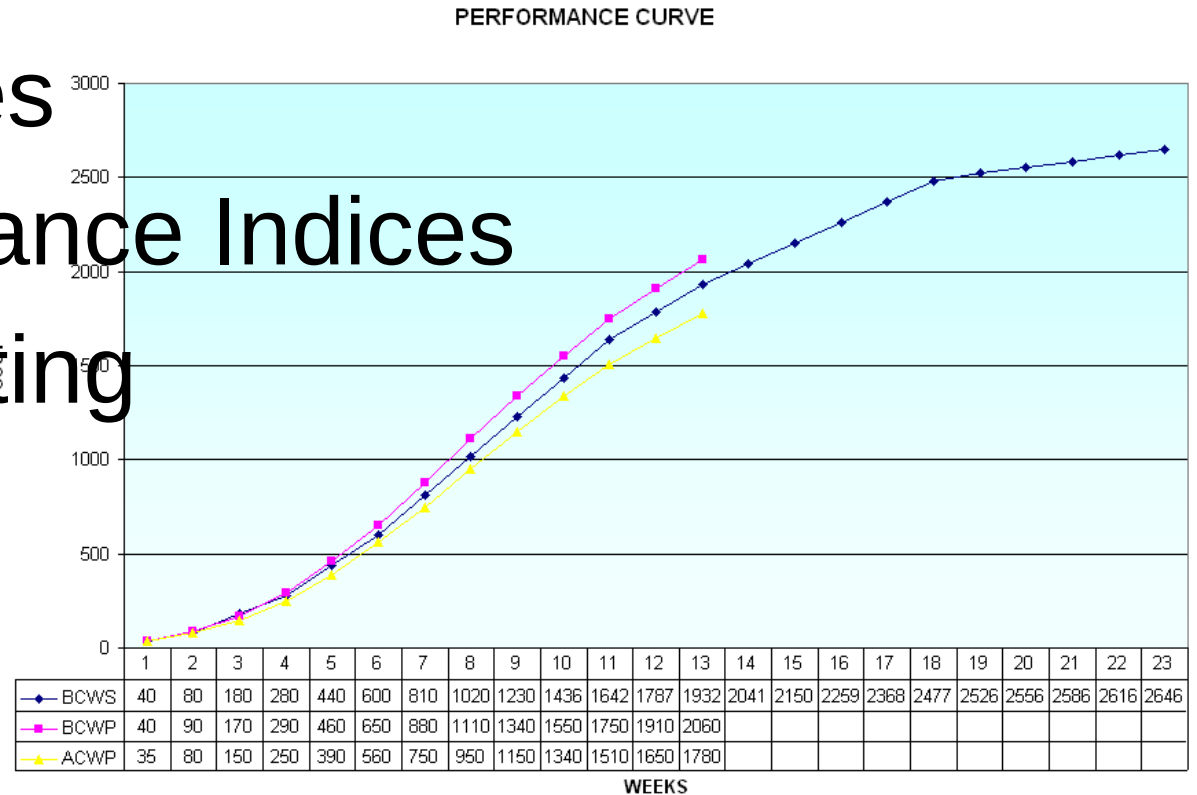
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Earned Value Management

◆ Variances

◆ Performance Indices

◆ Forecasting



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Components of EVA

Planned Value

S-Curve

Earned Value

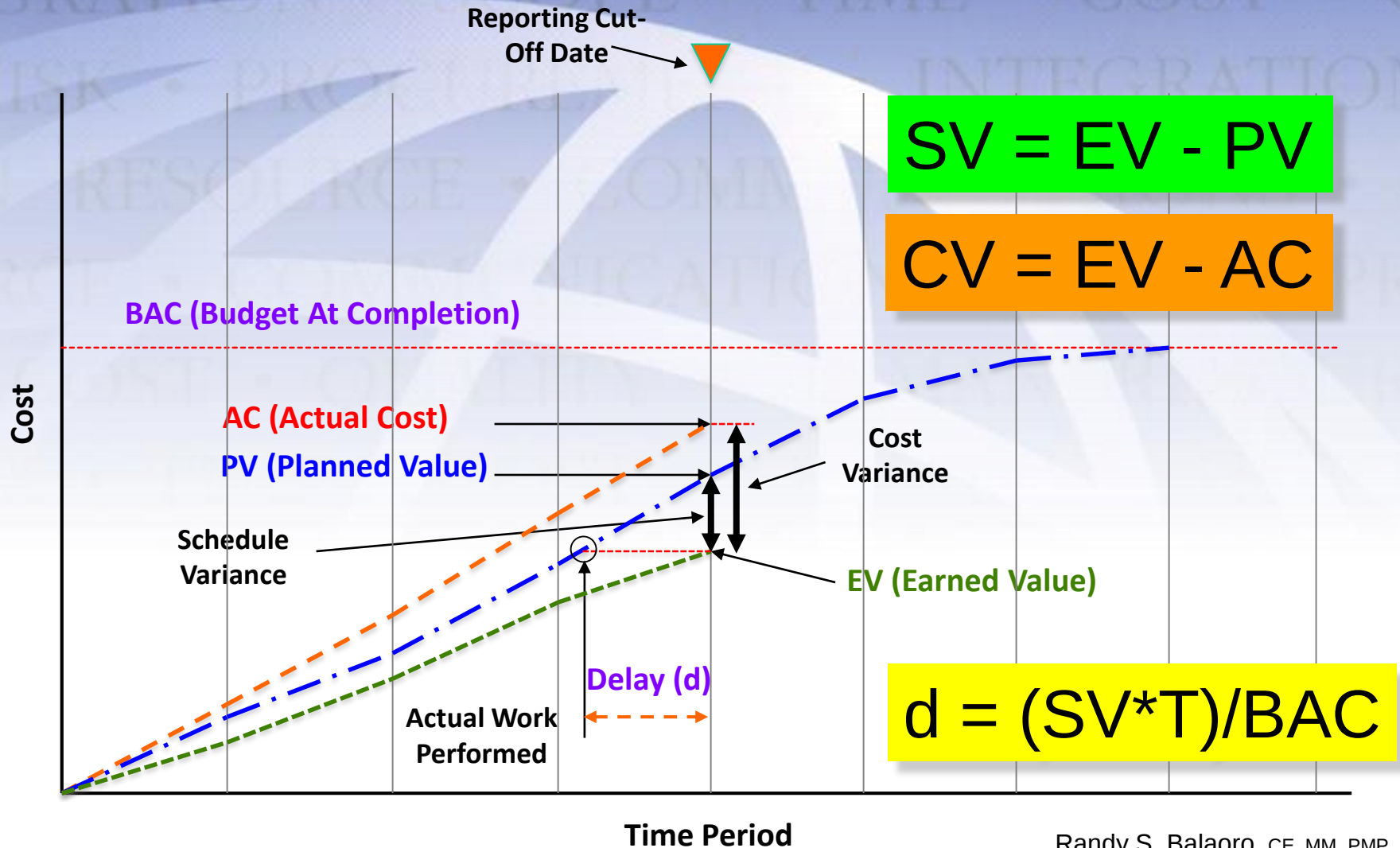
Accomplishment
Report

Actual Cost

Actual Project
Cost Disbursement

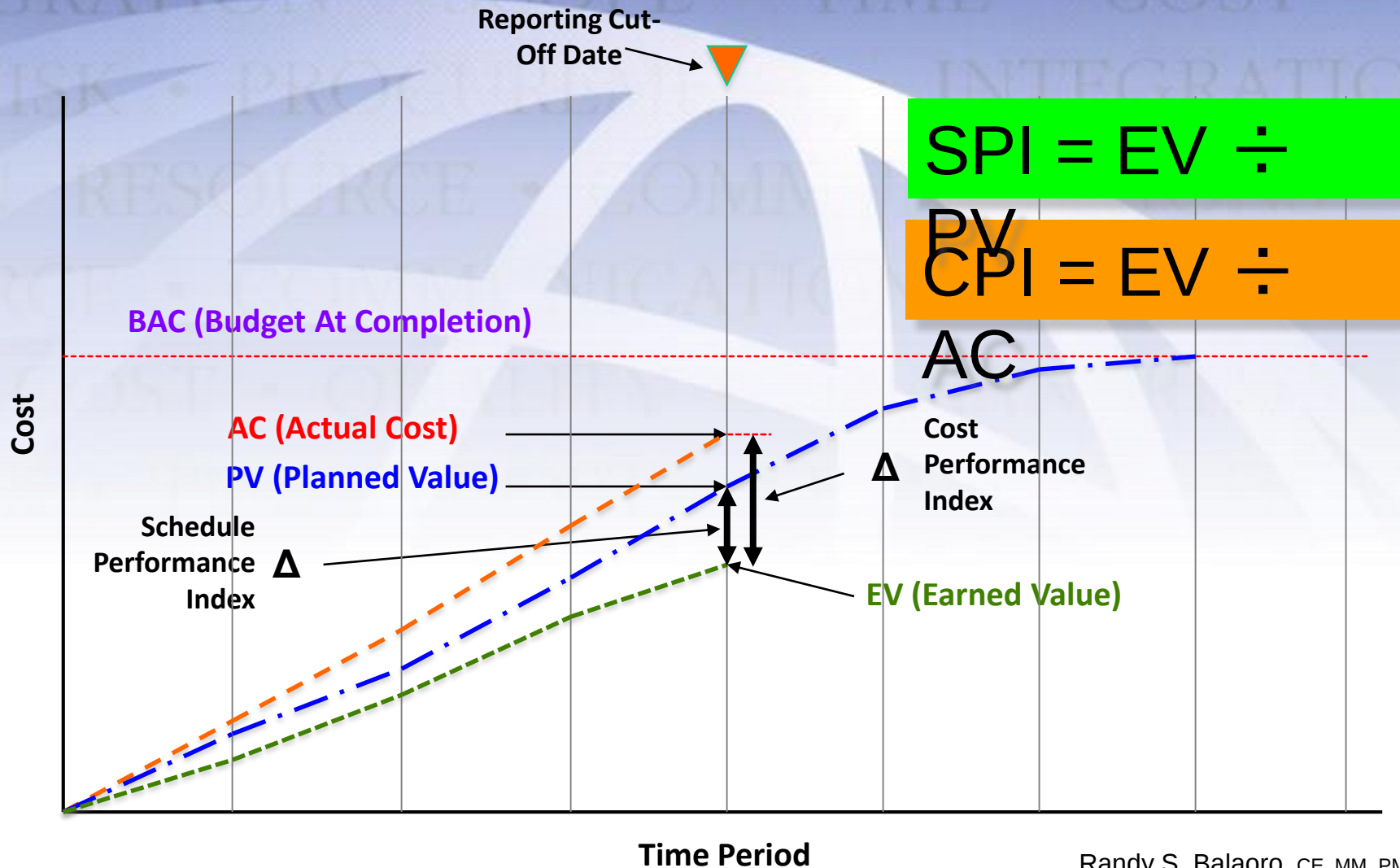
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Schedule / Cost Variance



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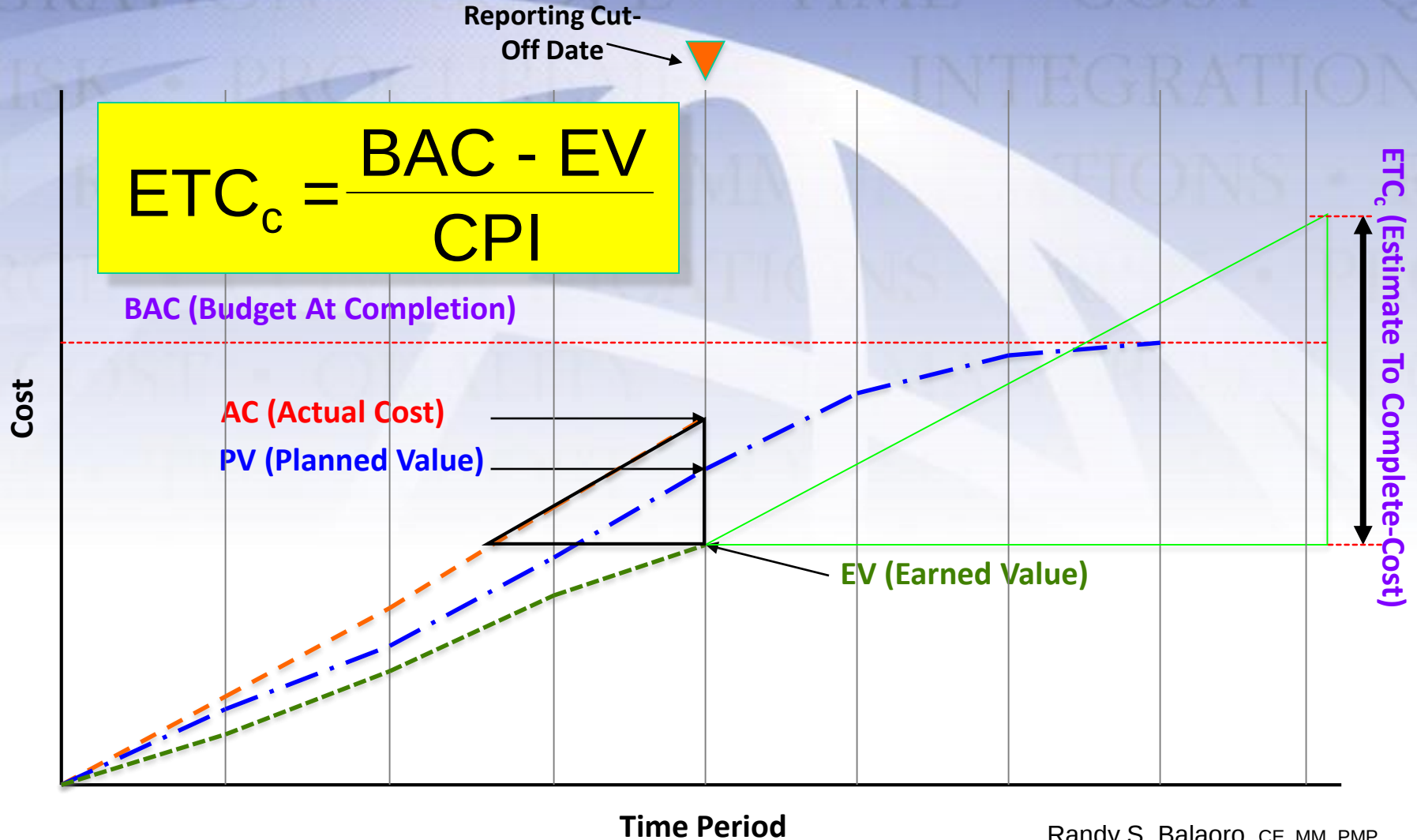
Schedule / Cost Performance Index



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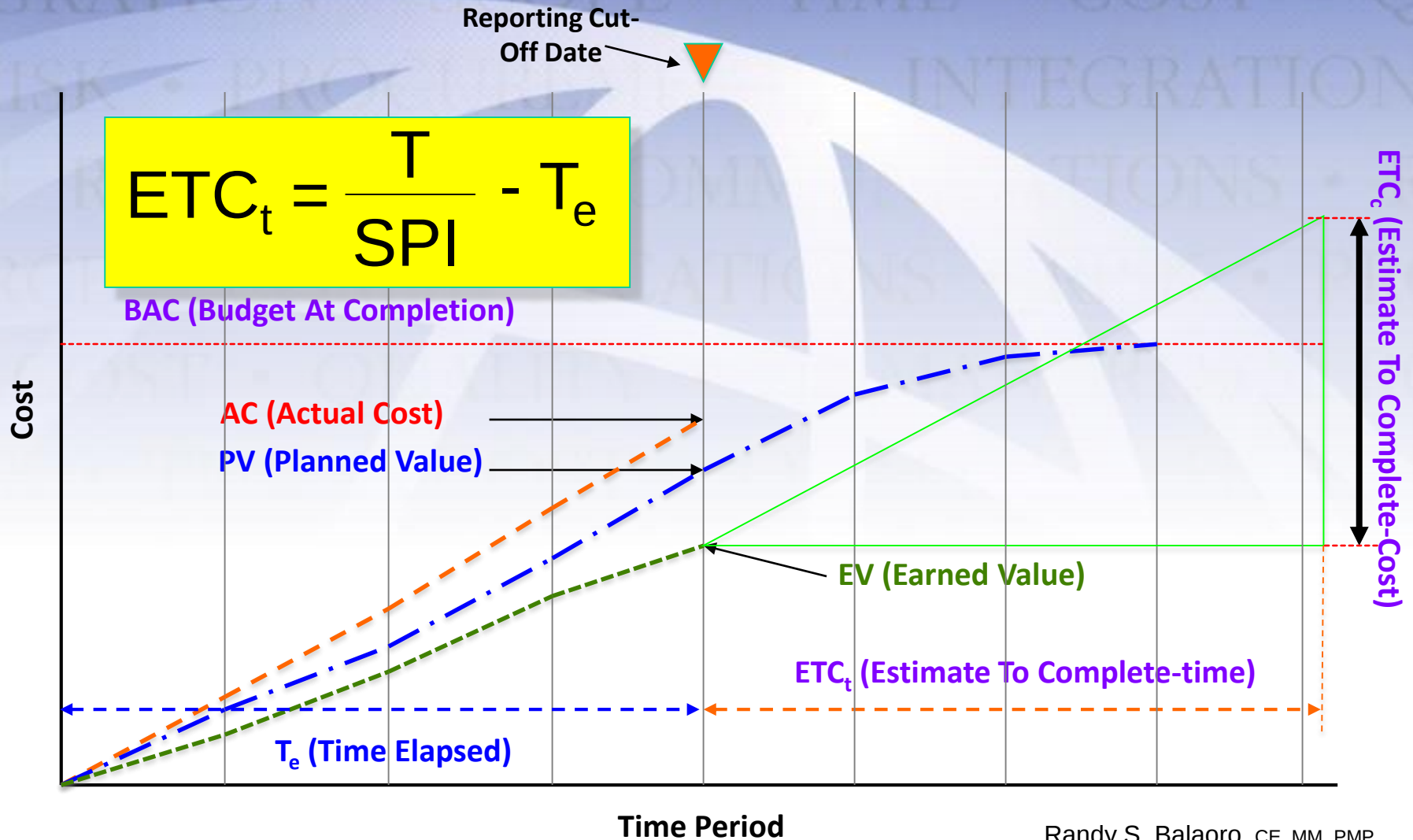
Estimate to Complete - Cost

Reporting Cut-Off Date



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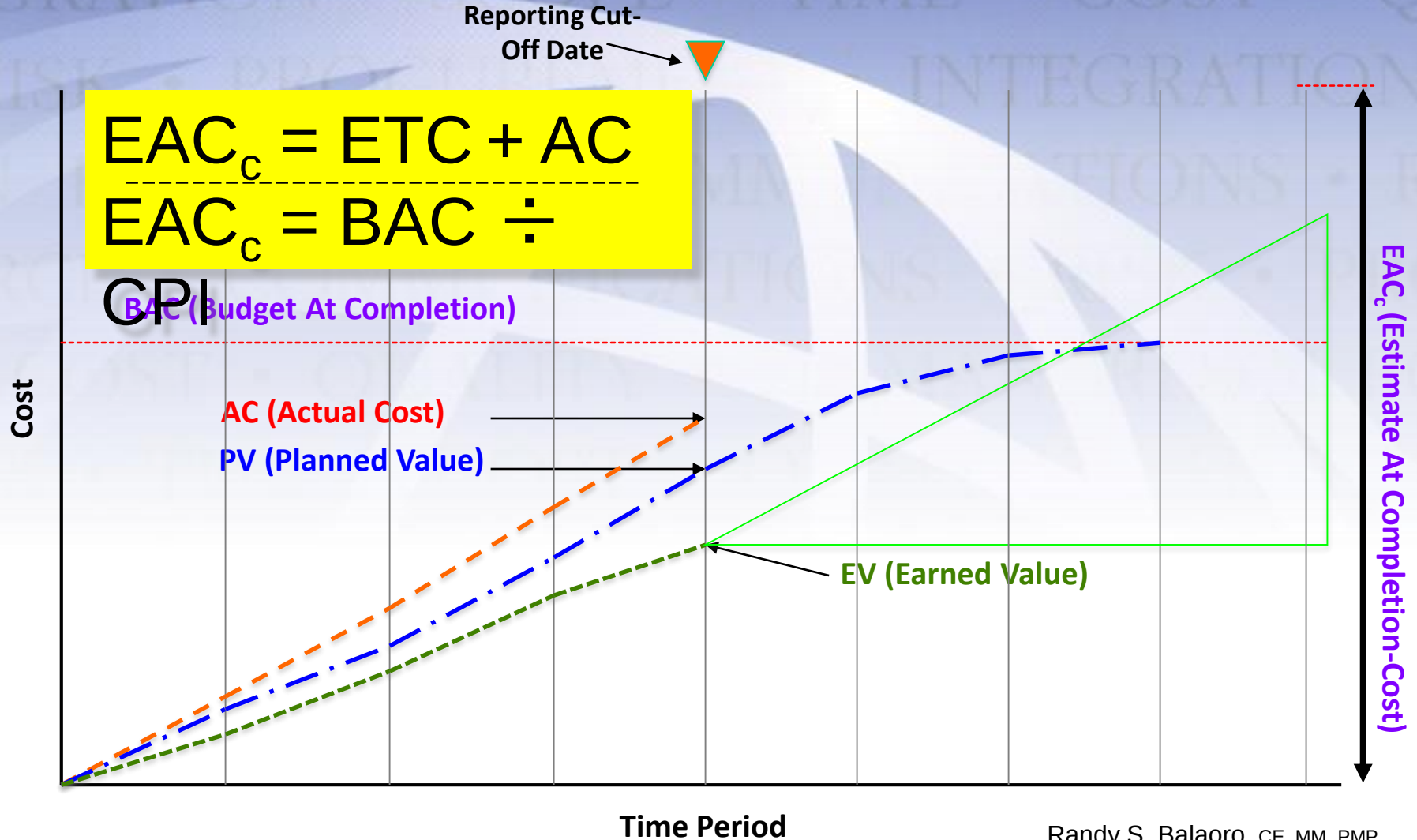
Estimate to Complete - Time



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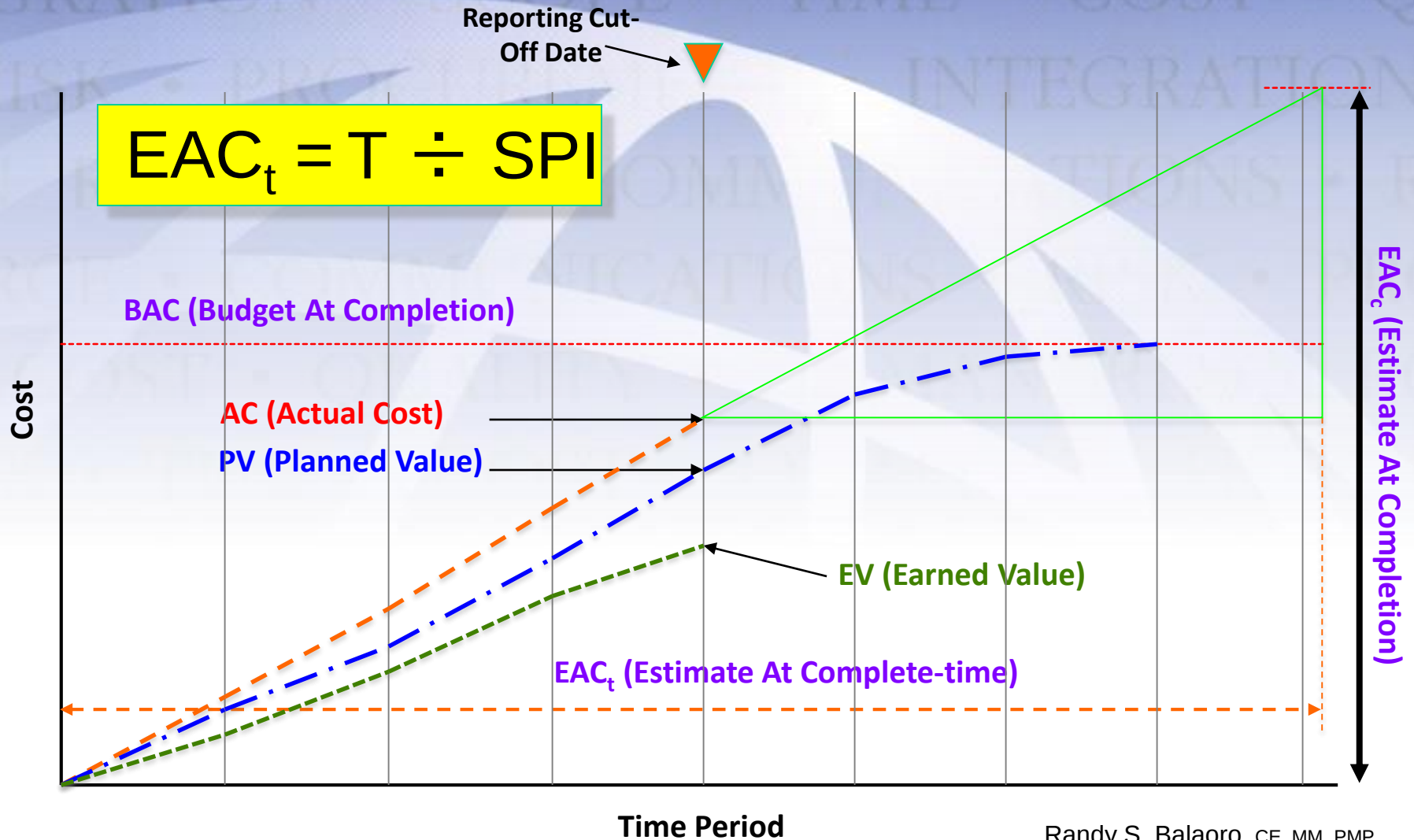
Estimate at Completion - Cost

Reporting Cut-Off Date



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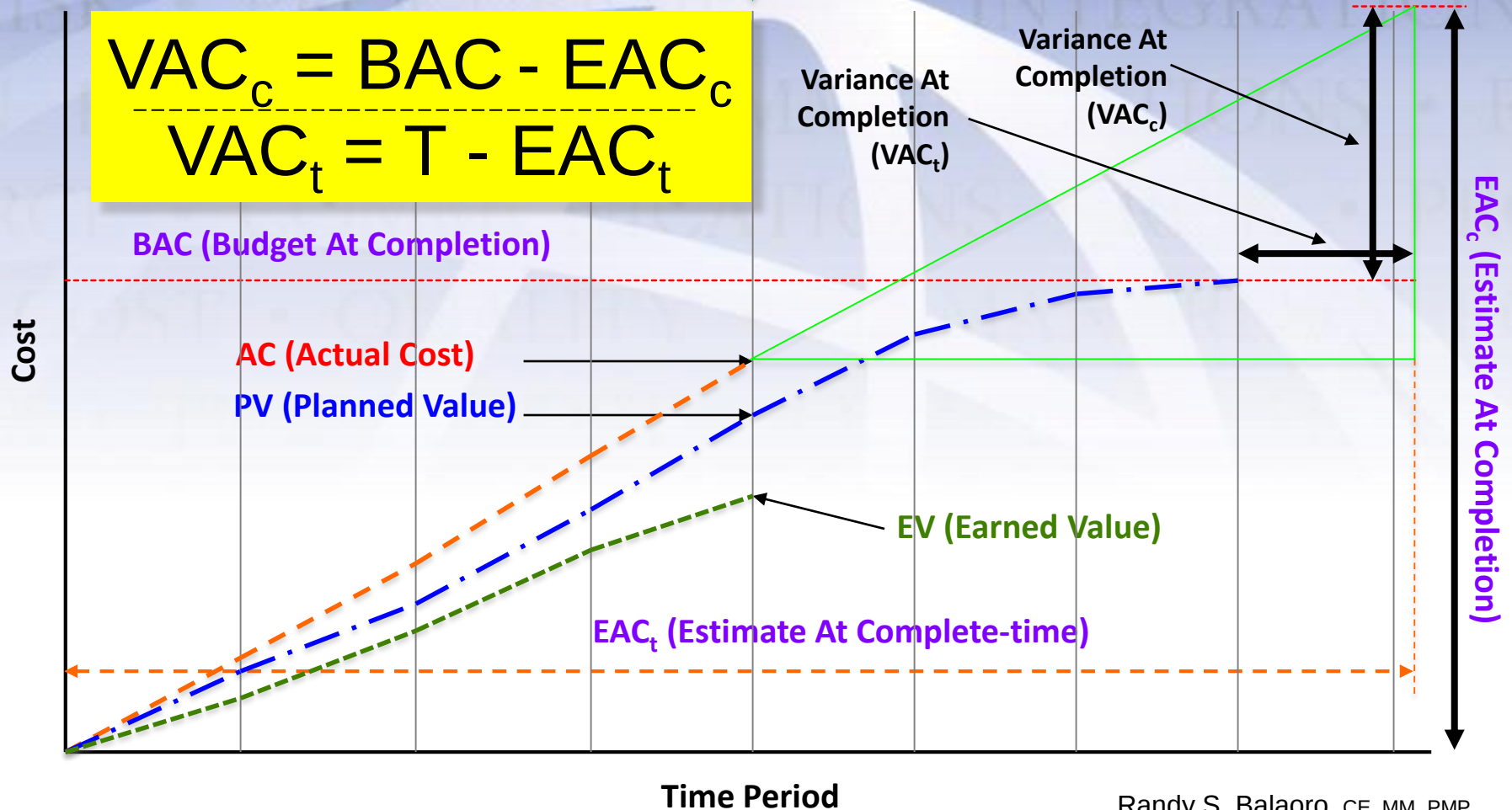
Estimate at Completion - Time



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Variance at Completion

Reporting Cut-Off Date



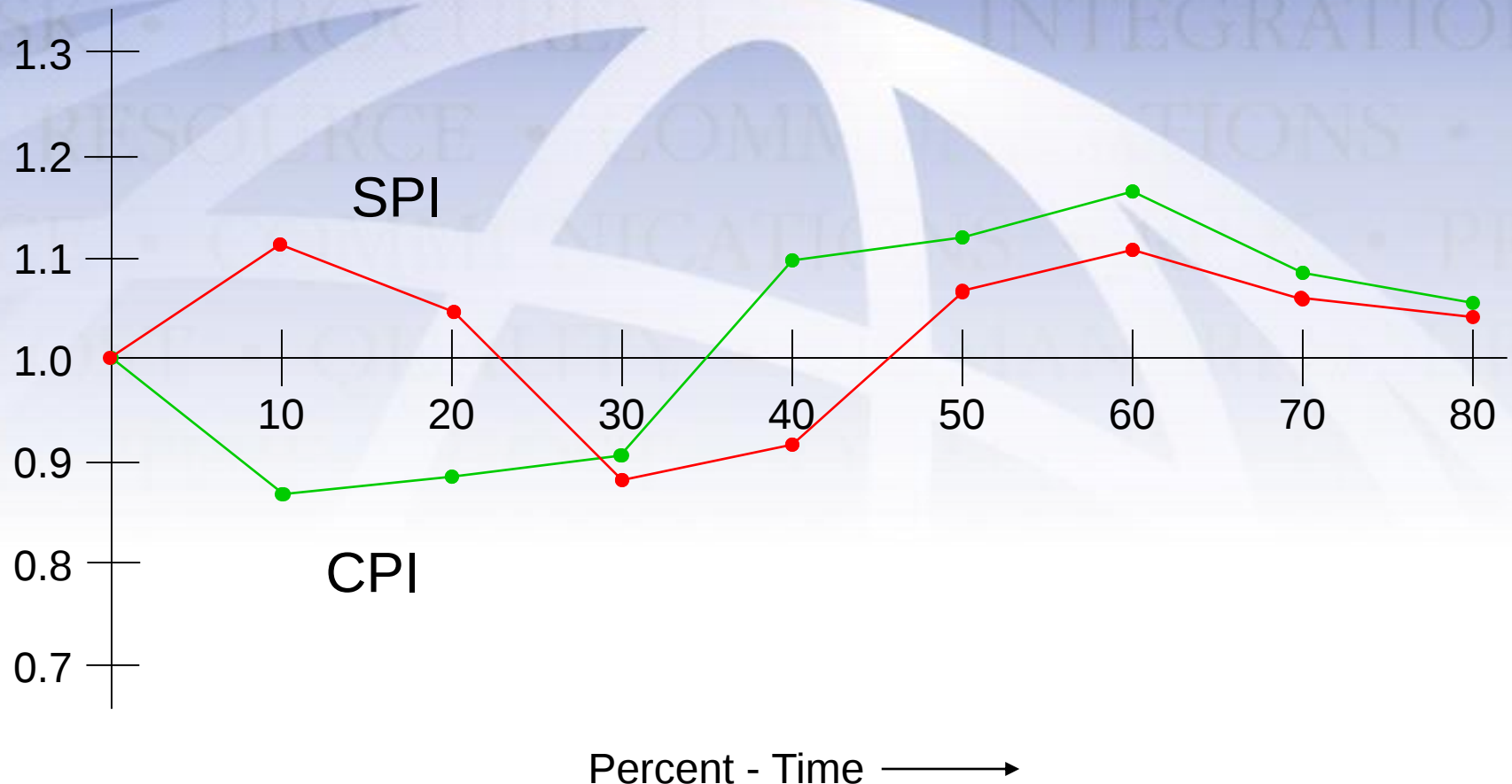
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Earned Value Analysis

PROJECT MANAGEMENT QUESTION	EVM PERFORMANCE MEASURE	FORMULA
How are we doing (time)?	Schedule Analysis & Forecasting	
-Are we ahead or behind schedule?	-Schedule Variance (SV)	$SV = EV - PV$
-How efficient are we using time?	-Schedule Performance Index (SPI)	$SPI = EV / PV$
-When are we likely to finish?	-Time Estimate at Completion (EACt)	$EACt = (BAC / SPI) / (BAC / Time)$
How are we doing (cost)?	Cost Analysis & Forecasting	
-Are we under or over budget?	-Cost Variance (CV)	$CV = EV - AC$
-How efficient are we using our resources?	-Cost Performance Index (CPI)	$CPI = EV / AC$
-How efficient must we use our remaining resources?	-To-Complete Performance Index (TCPI)	$TCPI = (BAC - EV) / (BAC - AC)$
-What is the project likely to cost?	-Estimate at Completion (EAC)	$EAC = BAC / CPI$
-Will we be under or over budget?	-Variance at Completion (VAC)	$VAC = BAC - EAC$
-What will the remaining work cost?	-Estimate to Complete (ETC)	$ETC = (BAC - EV) / CPI$

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Trend Analysis



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Project Cost Statement

Task ID	Baseline Estimate	Cost to Date	Cost to Complete	Revised Forecast	Under (Over)
001	\$ 20,000	\$ 4,250	\$ 16,100	\$ 20,350	\$ (350)
002	6,700	1,150	5,700	6,850	(150)
003	3,900	700	2,900	3,600	300
004	14,600	10,330	4,050	14,380	220
005	3,000	0	3,000	3,000	0
006	4,200	2,100	1,900	4,000	200
007	13,300	13,500	1,300	14,800	(1,500)
008	11,500	2,300	8,800	11,100	400
TOTAL	\$ 77,200	\$ 34,330	\$ 43,750	\$ 78,080	\$ (880)

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End of Presentation



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Project Management in the Context of GMS Cooperation & Integration
6 – 10 Jan. 2016, Mekong Institute, Khon kaen, Thailand



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