

My Risk Results Don't Make Sense!

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The Problem

- In ACE sessions that are parametrically modeled, a user may enter a risk distribution that may not reflect the estimator's intent
- While this may not cause a fatal error, the risk results may be different than what the estimator expected to see.
- This presentation will walk through several methods in troubleshooting an ACEIT model

Ways to Troubleshoot Results

- ACE
 - Input Results Viewer (BY Risk Statistics View)
 - Traceback Navigator
- POST & CO\$TAT
 - Risk Statistics Report
 - Tornado Report
 - JCL Report and Distribution Finder

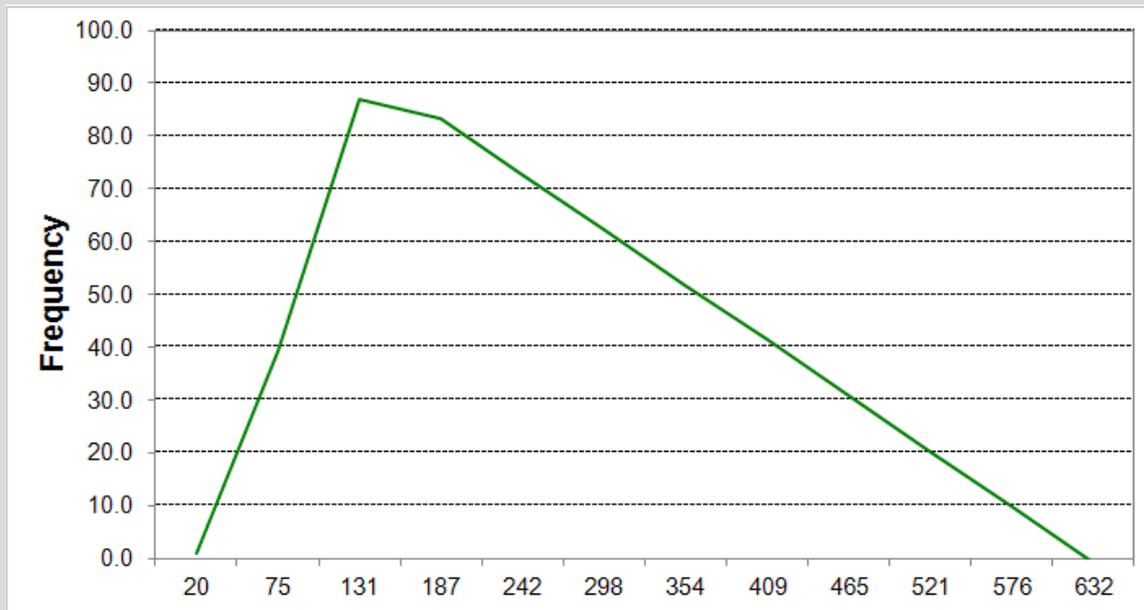
Disclaimer

All Data Shown is Fake!

A Simple Model

Small Example.a...asic (BY2012\$K)

	WBS/CES Description	Unique ID	Point Estimate	Equation / Throughput	Distribution Form	PE Position in	Low (% of PE)	High (% of PE)	Low (Percentile)	High (Percentile)
1	*Demo File #1 - Small Example Estimate	*Estimate								
2										
3	DBA Cost		\$ 2,000.000 *	FTEs*LR\$						
4										
5	*INPUT VARIABLES	*IN_VAR								
6										
7	Number of Servers	Servers	1,000.000 *	1000						
8	Servers per DBA	Ratio	100.000 *	100	Triangular	Mode	10	600		
9										
10	# of FTEs	FTEs	10.000 *	Servers/Ratio						
11										
12	Labor Rate (Yearly)	LR\$	\$ 200.000 *	200						
13										



What Happened?

ACE 7.3 - [Small Example.aceit - Inputs/Results Viewer (BY2012\$K)]

File Edit View Mode Calc Cases Reports Tools Window Help

BY Risk Statistics Phased by Case

Small Example.acei...K Basic (BY2012\$K) Small Example.a...wer (BY2012\$K)

	WBS/CES Description	Point Estimate	Mean	Std Dev	CV	5%	10%	15%	20%	25%	30%	35%
*1	*Configuration Information											
*2	Base Year	2012										
*3	Units	K										
*4	System Inflation Table	ment Indices for FY 2012, 08Mar2012										
*5	Custom Inflation Table	Custom Cache										
*6	Session Name	Small Example.aceit										
*7	Session Path	sktop\AUW Paper\Small Example.aceit										
*8	Time Last Calculated	21:00:27										
*9	Date Last Calculated	02Aug2012										
*10	Time Last Saved	20:58:27										
*11	Date Last Saved	02Aug2012										
*12	Risk Iterations	500										
*13												
1	*Demo File #1 - Small Example Estimate											
2												
3	DBA Cost	\$ 2,000,000 (84%)	\$ 2,038,733	\$ 8,267,791	4.055358	\$ 252,150	\$ 285,135	\$ 316,950	\$ 350,841	\$ 387,120	\$ 425,842	\$ 469,121
4												
5	*INPUT VARIABLES											
6												
7	Number of Servers	1,000,000	1,000,000			1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
8	Servers per DBA	100,000 (16%)	350.087	236.727	0.676196	35.446	66.882	96.249	123.560	151.626	181.057	211.395
9												
10	# of FTEs	10,000 (84%)	10,194	41.339	4.055358	1,261	1,426	1,585	1,754	1,936	2,129	2,346
11												
12	Labor Rate (Yearly)	\$ 200,000	\$ 200,000			\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000

- The Mean FTE is higher than the Point Estimate

A Larger File

- In a large file, a visual check of every row is not always possible

The screenshot shows the ACE 7.3 software interface with a large data table. The table has the following columns: WBS/CES Description, Approp, Spare_ID (* Spare), Unique ID, Count (!) Count, Baseline, Phasing Method, and Equation / Throughput. The data is organized into a hierarchy starting with 'Demo Program #2'.

	WBS/CES Description	Approp	Spare_ID (* Spare)	Unique ID	Count (!) Count	Baseline	Phasing Method	Equation / Throughput
58	*Demo Program #2			*Estimate				
59	NON-RECURRING							
60	RECURRING							
61	Total Program			Total_Program		\$ 190.541 (9%) *	F	
62	Increment 1	3600				\$ 20.744 (10%) *	F	
63	PMP	3600		Inc1_PMP\$\$		\$ 11.059 (9%) *	F	
64	Hardware	3600		Inc1_HW\$\$		\$ 4.477 (24%) *	F	
65	HWCI 1	3600			1	\$ 0.053 (32%) *	F	MatDot(Num_HWCI, 1, Count, @Inc1_
66	HWCI 2	3600			2	\$ 3.190 (32%) *	F	MatDot(Num_HWCI, 1, Count, @Inc1_
67	HWCI 3	3600			3	\$ 0.191 (32%) *	F	MatDot(Num_HWCI, 1, Count, @Inc1_
68	HWCI 4	3600			4	\$ 0.510 (32%) *	F	MatDot(Num_HWCI, 1, Count, @Inc1_
69	HWCI 5	3600			5	\$ 0.532 (32%) *	F	MatDot(Num_HWCI, 1, Count, @Inc1_
70	Application Software	3600		Inc1_App_SW\$\$		\$ 3.476 (14%) *	F	
71	CSCI 1	3600				\$ 0.114 (19%) *	F	
72	Developed Software	3600				\$ 0.092 (24%) *	F	(Inc1_CSCI1_phased/Productivity)*(SW_Dev_LR\$
73	COTS Software	3600				\$ 0.021 (32%) *	F	Inc1_Ap
74	CSCI 2	3600				\$ 0.200 (22%) *	F	
75	Developed Software	3600				\$ 0.184 (23%) *	F	(Inc1_CSCI2_phased/Productivity)*(SW_Dev_LR\$
76	COTS Software	3600				\$ 0.016 (32%) *	F	Inc1_Ap
77	CSCI 3	3600				\$ 0.341 (19%) *	F	
78	Developed Software	3600				\$ 0.277 (25%) *	F	(Inc1_CSCI3_phased/Productivity)*(SW_Dev_LR\$
79	COTS Software	3600				\$ 0.064 (32%) *	F	Inc1_Ap
80	CSCI 4	3600				\$ 0.369 (26%) *	F	
81	Developed Software	3600				\$ 0.369 (26%) *	F	(Inc1_CSCI4_phased/Productivity)*(SW_Dev_LR\$
82	COTS Software	3600				\$ 0.000 *	F	Inc1_Ap
83	CSCI 5	3600				\$ 0.461 (22%) *	F	

So What do I look for?

- Using the BY Risk Statistics View on the Inputs / Results Viewer
 - The Overall Confidence Level of the Point Estimate
 - The Overall CV of the Session
 - The 5th, 90th and 95th percentile – does the cost suddenly increase / decrease?

ACE 7.3 - [Large Example.aceit - Inputs/Results Viewer (BY2012SM)]

BY Risk Statistics

	WBS/CES Description	Point Estimate	Mean	Std Dev	CV	5%	10%	15%	20%	25%	30%	35%	40%
59	Total Program	\$ 190,541 (9%)	\$ 230,647	\$ 128,347	0.556467	\$ 184,973	\$ 191,298	\$ 196,096	\$ 199,350	\$ 202,034	\$ 205,531	\$ 208,615	\$ 212
60	Increment 1	\$ 20,744 (10%)	\$ 28,609	\$ 6,721	0.234926	\$ 19,934	\$ 20,833	\$ 22,017	\$ 23,028	\$ 23,754	\$ 24,484	\$ 25,414	\$ 25
61	PMP	\$ 11,059 (9%)	\$ 15,452	\$ 3,588	0.232218	\$ 10,506	\$ 11,254	\$ 11,798	\$ 12,426	\$ 12,871	\$ 13,251	\$ 13,681	\$ 14
62	Hardware	\$ 4,477 (24%)	\$ 5,511	\$ 1,343	0.243747	\$ 3,511	\$ 3,889	\$ 4,107	\$ 4,323	\$ 4,511	\$ 4,703	\$ 4,879	\$ 5
63	HWCI 1	\$ 0,053 (32%)	\$ 0,065	\$ 0,022	0.330490	\$ 0,033	\$ 0,038	\$ 0,043	\$ 0,046	\$ 0,049	\$ 0,052	\$ 0,055	\$ 0
64	HWCI 2	\$ 3,190 (32%)	\$ 3,927	\$ 1,299	0.330698	\$ 1,977	\$ 2,300	\$ 2,551	\$ 2,762	\$ 2,947	\$ 3,119	\$ 3,279	\$ 3
65	HWCI 3	\$ 0,191 (32%)	\$ 0,236	\$ 0,078	0.330530	\$ 0,119	\$ 0,138	\$ 0,153	\$ 0,166	\$ 0,177	\$ 0,187	\$ 0,197	\$ 0
66	HWCI 4	\$ 0,510 (32%)	\$ 0,628	\$ 0,208	0.330548	\$ 0,316	\$ 0,368	\$ 0,408	\$ 0,442	\$ 0,472	\$ 0,499	\$ 0,524	\$ 0
67	HWCI 5	\$ 0,532 (32%)	\$ 0,655	\$ 0,217	0.330777	\$ 0,329	\$ 0,384	\$ 0,425	\$ 0,461	\$ 0,492	\$ 0,519	\$ 0,546	\$ 0
68	Application Software	\$ 3,476 (14%)	\$ 5,864	\$ 2,510	0.428007	\$ 2,809	\$ 3,148	\$ 3,530	\$ 3,895	\$ 4,104	\$ 4,370	\$ 4,555	\$ 4
69	CSCI 1	\$ 0,114 (19%)	\$ 0,188	\$ 0,093	0.493489	\$ 0,080	\$ 0,096	\$ 0,107	\$ 0,116	\$ 0,123	\$ 0,129	\$ 0,137	\$ 0
70	Developed Software	\$ 0,092 (24%)	\$ 0,158	\$ 0,092	0.582509	\$ 0,054	\$ 0,065	\$ 0,075	\$ 0,085	\$ 0,093	\$ 0,101	\$ 0,109	\$ 0
71	COTS Software	\$ 0,021 (32%)	\$ 0,030	\$ 0,015	0.500481	\$ 0,007	\$ 0,011	\$ 0,014	\$ 0,016	\$ 0,019	\$ 0,020	\$ 0,022	\$ 0
72	CSCI 2	\$ 0,200 (22%)	\$ 0,337	\$ 0,180	0.533420	\$ 0,135	\$ 0,150	\$ 0,172	\$ 0,195	\$ 0,210	\$ 0,228	\$ 0,242	\$ 0
73	Developed Software	\$ 0,184 (23%)	\$ 0,315	\$ 0,180	0.572418	\$ 0,110	\$ 0,131	\$ 0,152	\$ 0,172	\$ 0,191	\$ 0,203	\$ 0,218	\$ 0

How do I find the Rows that are Impacting the Risk Results?

- In ACE → Traceback Navigator
 - Which lines have an unusually high CV?

Traceback Navigator (Large Example.aceit)

Row: 181: Operations & Maintenance Copy Contents

Case: Baseline Arrange Columns...

Clear History Help Print Report... View Calc Details...

Traceback:

Description	ID	Equation	Total	Unwrapp...	Appropria...	Phasing	Used in C...	ID Referenc...	Ref Ty
181: Operations & Maintenance									
Equation									
181: Operations & Maintenance		Sum of children	\$ 44,938	(none)		F			
Predecessors									
182: Increment 1			\$ 38,214	(none)	3400	F	(Child)		
195: Increment 2			\$ 6,724	(none)	3400	F	(Child)		
Successors									
59: Total Program	Total_Program	Sum of children	\$ 190,541			F	(Parent)		

ID	Description	Equation	Total	Unwrapp...	Appropria...	Phasing	Used in C...	ID Referenc...	Ref Ty				
181	Operations & Maintenance	\$ 44,938 (20%)	\$ 62,864	\$ 126,874	2,018219	\$ 40,437	\$ 42,586	\$ 43,869	\$ 44,945	\$ 45,997	\$ 47,095	\$ 48,269	\$
182	Increment 1	\$ 38,214 (17%)	\$ 46,639	\$ 40,824	0,875316	\$ 35,002	\$ 36,667	\$ 37,694	\$ 38,447	\$ 39,194	\$ 40,069	\$ 40,648	\$
183	Hardware Maintenance	\$ 3,447 (34%)	\$ 4,250	\$ 1,682	0,395674	\$ 1,821	\$ 2,220	\$ 2,590	\$ 2,869	\$ 3,078	\$ 3,319	\$ 3,515	\$
184	Software Maintenance	\$ 2,679 (34%)	\$ 7,668	\$ 40,285	5,253651	\$ 1,634	\$ 1,874	\$ 2,093	\$ 2,236	\$ 2,445	\$ 2,567	\$ 2,709	\$
185	Developed Software Maintenance	\$ 2,041 (43%)	\$ 6,804	\$ 40,564	5,962039	\$ 0,954	\$ 1,067	\$ 1,216	\$ 1,345	\$ 1,503	\$ 1,636	\$ 1,807	\$
186	CDTS Software Maintenance	\$ 0,638 (27%)	\$ 0,893	\$ 0,357	0,399844	\$ 0,392	\$ 0,464	\$ 0,526	\$ 0,571	\$ 0,622	\$ 0,672	\$ 0,724	\$
187	Tech Refresh	\$ 8,954 (24%)	\$ 11,022	\$ 2,687	0,243747	\$ 7,023	\$ 7,779	\$ 8,214	\$ 8,646	\$ 9,022	\$ 9,406	\$ 9,758	\$
188	Hardware	\$ 8,954 (24%)	\$ 11,022	\$ 2,687	0,243747	\$ 7,023	\$ 7,779	\$ 8,214	\$ 8,646	\$ 9,022	\$ 9,406	\$ 9,758	\$
189	Integration												
190	DBA / SA												
191	Recurring Training												
192	Sustaining Engineering	\$ 23,134 (42%)	\$ 23,666	\$ 2,138	0,090322	\$ 20,457	\$ 20,834	\$ 21,358	\$ 21,735	\$ 22,162	\$ 22,428	\$ 22,625	\$
193	Civilian	\$ 4,840 (44%)	\$ 4,951	\$ 0,547	0,110413	\$ 4,065	\$ 4,233	\$ 4,367	\$ 4,461	\$ 4,555	\$ 4,640	\$ 4,717	\$
194	SETA	\$ 18,294 (44%)	\$ 18,714	\$ 2,066	0,110384	\$ 15,379	\$ 15,982	\$ 16,465	\$ 16,870	\$ 17,217	\$ 17,533	\$ 17,828	\$
195	Increment 2	\$ 6,724 (30%)	\$ 16,179	\$ 85,872	5,307624	\$ 4,792	\$ 5,301	\$ 5,787	\$ 6,225	\$ 6,514	\$ 6,709	\$ 6,945	\$
196	Hardware Maintenance	\$ 1,266 (35%)	\$ 1,561	\$ 0,643	0,411856	\$ 0,632	\$ 0,792	\$ 0,920	\$ 1,018	\$ 1,107	\$ 1,188	\$ 1,263	\$
197	Software Maintenance	\$ 3,448 (44%)	\$ 12,089	\$ 85,246	7,051683	\$ 1,616	\$ 1,796	\$ 2,034	\$ 2,340	\$ 2,536	\$ 2,801	\$ 2,983	\$
198	Developed Software Maintenance	\$ 3,448 (44%)	\$ 12,089	\$ 85,246	7,051683	\$ 1,616	\$ 1,796	\$ 2,034	\$ 2,340	\$ 2,536	\$ 2,801	\$ 2,983	\$
199	CDTS Software Maintenance												

Ready

start | Inboxes - Microsoft Out... | ACE 7.3 - [Large Exa... | Microsoft PowerPoint ... | 8:19 PM

How do I find the Rows that are Impacting the Risk Results?

- In POST → Risk Statistics Report
 - Will Show the Mean, Standard Deviation, CV & Statistical Percentiles for selected rows

RISK Statistics Report for Risk Adjusted in Large Example.aceit
 Costs in BY2012 \$M, 500 Iterations, Allocated at Mean
 Thursday, 02 August 2012, 8:23 pm

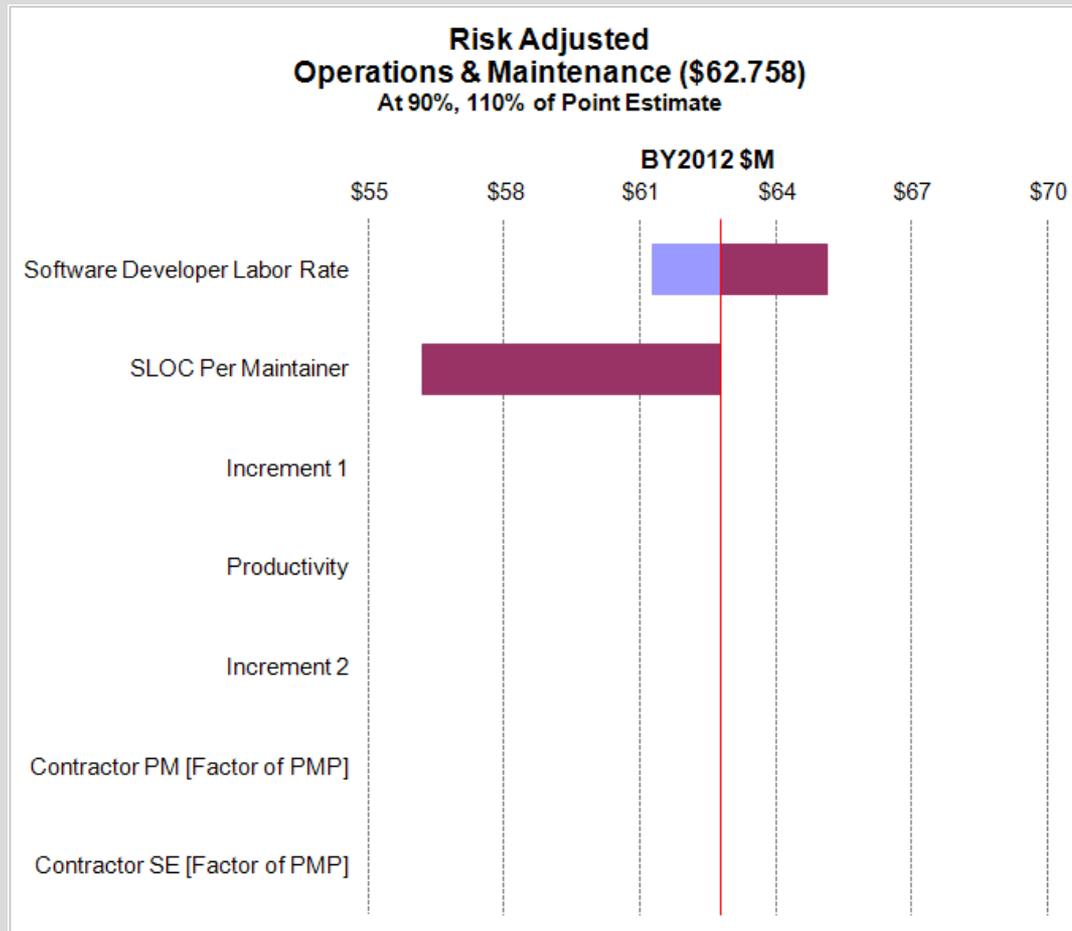
Rows: BaseYear Case

RISK Statistics in 5% intervals

Costs in BY2012 \$M	Point Estimate	Confidence	Mean	Std Dev	CV	0%	5%	10%	15%	20%	25%	30%	35%	40%	45%
v/B/S															
Demo Program #2															
Total Program	\$158.167	9%	\$197.527	\$128.276	0.6494	\$133.155	\$155.104	\$158.882	\$164.088	\$167.642	\$169.632	\$172.423	\$176.350	\$178.982	\$182.361
Increment 1	\$20.744	10%	\$28.609	\$6.721	0.2349	\$15.347	\$19.934	\$20.833	\$22.017	\$23.028	\$23.754	\$24.484	\$25.414	\$25.876	\$26.509
PMP	\$11.059	9%	\$15.452	\$3.588	0.2322	\$8.512	\$10.506	\$11.254	\$11.798	\$12.426	\$12.871	\$13.251	\$13.681	\$14.086	\$14.399
Hardware	\$4.477	24%	\$5.511	\$1.343	0.2437	\$2.537	\$3.511	\$3.889	\$4.107	\$4.323	\$4.511	\$4.703	\$4.879	\$5.003	\$5.118
Hv/CI 1	\$0.053	32%	\$0.065	\$0.022	0.3305	\$0.022	\$0.033	\$0.038	\$0.043	\$0.046	\$0.049	\$0.052	\$0.055	\$0.057	\$0.060
Hv/CI 2	\$3.190	32%	\$3.927	\$1.299	0.3307	\$1.213	\$1.977	\$2.300	\$2.551	\$2.762	\$2.947	\$3.119	\$3.279	\$3.439	\$3.608
Hv/CI 3	\$0.191	32%	\$0.236	\$0.078	0.3305	\$0.079	\$0.119	\$0.138	\$0.153	\$0.168	\$0.177	\$0.187	\$0.197	\$0.206	\$0.216
Hv/CI 4	\$0.510	32%	\$0.628	\$0.208	0.3305	\$0.214	\$0.316	\$0.368	\$0.408	\$0.442	\$0.472	\$0.499	\$0.524	\$0.550	\$0.577
Hv/CI 5	\$0.532	32%	\$0.655	\$0.217	0.3308	\$0.199	\$0.329	\$0.384	\$0.425	\$0.461	\$0.492	\$0.519	\$0.546	\$0.573	\$0.601
Application Software	\$3.476	14%	\$5.864	\$2.510	0.4280	\$1.629	\$2.809	\$3.148	\$3.530	\$3.835	\$4.104	\$4.370	\$4.555	\$4.816	\$5.086
CSCI 1	\$0.114	19%	\$0.188	\$0.093	0.4935	\$0.040	\$0.080	\$0.096	\$0.107	\$0.116	\$0.123	\$0.129	\$0.137	\$0.147	\$0.156
Developed Software	\$0.092	24%	\$0.158	\$0.092	0.5825	\$0.027	\$0.054	\$0.065	\$0.075	\$0.085	\$0.093	\$0.101	\$0.109	\$0.116	\$0.125
COTS Software	\$0.021	32%	\$0.030	\$0.015	0.5005	\$0.000	\$0.007	\$0.011	\$0.014	\$0.016	\$0.019	\$0.020	\$0.022	\$0.024	\$0.026
CSCI 2	\$0.200	22%	\$0.337	\$0.180	0.5334	\$0.068	\$0.135	\$0.150	\$0.172	\$0.195	\$0.210	\$0.228	\$0.242	\$0.257	\$0.278
Developed Software	\$0.184	23%	\$0.315	\$0.180	0.5724	\$0.056	\$0.113	\$0.131	\$0.152	\$0.172	\$0.191	\$0.203	\$0.218	\$0.225	\$0.256
COTS Software	\$0.016	32%	\$0.022	\$0.011	0.5002	\$0.000	\$0.005	\$0.008	\$0.010	\$0.012	\$0.014	\$0.015	\$0.017	\$0.018	\$0.020
CSCI 3	\$0.341	19%	\$0.562	\$0.279	0.4966	\$0.100	\$0.241	\$0.276	\$0.310	\$0.345	\$0.369	\$0.392	\$0.418	\$0.444	\$0.472
Developed Software	\$0.277	25%	\$0.473	\$0.275	0.5813	\$0.063	\$0.164	\$0.200	\$0.233	\$0.253	\$0.277	\$0.298	\$0.329	\$0.354	\$0.371
COTS Software	\$0.064	32%	\$0.089	\$0.045	0.5003	\$0.001	\$0.022	\$0.033	\$0.042	\$0.049	\$0.055	\$0.061	\$0.067	\$0.072	\$0.078
CSCI 4	\$0.369	26%	\$0.631	\$0.376	0.5950	\$0.152	\$0.223	\$0.266	\$0.306	\$0.331	\$0.362	\$0.400	\$0.438	\$0.474	\$0.493
Developed Software	\$0.369	26%	\$0.631	\$0.376	0.5950	\$0.152	\$0.223	\$0.266	\$0.306	\$0.331	\$0.362	\$0.400	\$0.438	\$0.474	\$0.493
COTS Software															

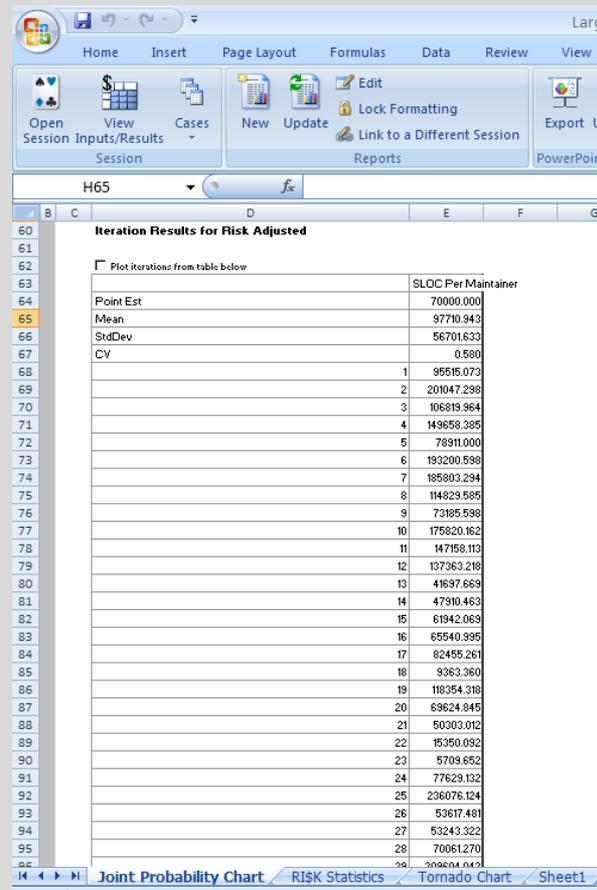
How do I find the Rows that are Impacting the Risk Results?

- In POST → Tornado Chart
 - Will Show the rows that are impacting the result row



Does the Distribution Result Match What I put into ACE?

- In POST → Joint Confidence Level (JCL) Chart
 - Will Show Individual Risk Iteration Results

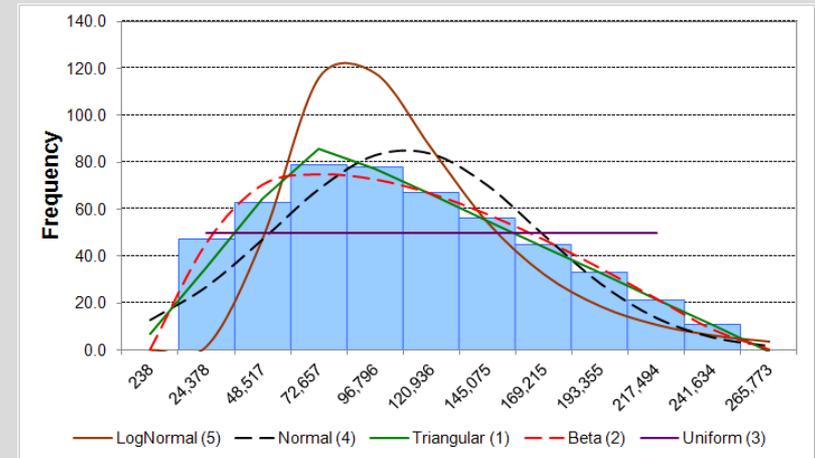


The screenshot shows an Excel spreadsheet with a table titled "Iteration Results for Risk Adjusted". The table has two columns: an unlabeled column for iteration numbers (1-28) and a column labeled "SLOC Per Maintainer". The data points are as follows:

Iteration	SLOC Per Maintainer
1	95515.073
2	201047.298
3	106819.964
4	149658.385
5	78911.000
6	193200.598
7	185803.294
8	114829.585
9	73185.598
10	175820.162
11	147168.113
12	137363.218
13	41697.669
14	47910.463
15	61942.069
16	65540.995
17	82455.261
18	9363.360
19	118354.318
20	69824.845
21	50303.012
22	15350.092
23	5709.652
24	77629.132
25	236076.124
26	53617.491
27	53243.322
28	70061.270

Does the Distribution Result Match What I put into ACE, cont.?

- In CO\$TAT → Distribution Finder
 - Create a dataset in CO\$TAT using the JCL results. Run Distribution Finder on the dataset
 - Note: a large number of iterations in the JCL chart will cause the distribution finder's file size to be extremely large



	Sample	LogNormal	Normal	Triangular	Beta	Uniform
Mean	97,710.9426	100,025.6116	97,710.9423	97,711.4220	97,738.8567	97,710.9423
StdDev	56,701.6328	50,116.7895	55,988.2435	56,632.7796	56,314.6045	55,944.6526
CV	0.5803	0.5010	0.5730	0.5796	0.5762	0.5726
Min	237.9826			-16,345.2915	2,232.2380	811.9616
Mode		71,483.2160	97,710.9423	57,338.9064	61,773.3305	
Max	241,633.8061			252,140.6512	246,794.4427	194,609.9230
Alpha					1.3625	
Beta					2.1264	
Data Count	500	% < 0 =	4.05%	1.35%	None	None
Standard Error of Estimate		16,713.8632	9,077.3497	1,390.0427	1,644.3352	8,897.7515
Rank		5	4	1	2	3
SEE / Fit Mean		16.71%	9.29%	1.42%	1.68%	9.11%
Chi^2 Fit test 23 Bins, Sig 0.05		Poor (0%)	Poor (0%)	Good (100%)	Good (100%)	Poor (0%)

Does the Distribution Result Match What I put into ACE, cont.?

- Compare the Distribution Finder's Results to your ACE session
 - With extremely right-skewed triangular distributions, a low and high percentile are usually needed

WBS/CES Description	Unique ID	Baseline	Equation / Throughput	Distribution Form	PE Position in	Low (% of PE)	High (% of PE)	Low (Percentile)	High (Percentile)	Coefficient of Variat
627 *Software Maintenance Section	aintenance									
628 *Developed Software Maintenance										
629 SLOC Per Maintainer	Maintainer	70000.000 *	70000	Triangular	Mode	28	228			
630										
631 Increment 1 Developed Software	tal_devSW	35000.000 *	Inc1_total_Code_phased							

	Sample	LogNormal	Normal	Triangular	Beta	Uniform
Mean	97,710.9426	100,025.6116	97,710.9423	97,711.4220	97,738.8567	97,710.9423
StdDev	56,701.6328	50,116.7895	55,988.2435	56,632.7796	56,314.6045	55,944.6526
CV	0.5803	0.5010	0.5730	0.5796	0.5762	0.5726
Min	237.9826			-16,345.2915	2,232.2380	811.9616
Mode		71,483.2160	97,710.9423	57,338.9064	61,773.3305	
Max	241,633.8061			252,140.6512	246,794.4427	194,609.9230
Alpha					1.3625	
Beta					2.1264	
Data Count	500	% < 0 =	4.05%	1.35%	None	None
Standard Error of Estimate		16,713.8632	9,077.3497	1,390.0427	1,644.3352	8,897.7515
Rank		5	4	1	2	3
SEE / Fit Mean		16.71%	9.29%	1.42%	1.68%	9.11%
Chi^2 Fit test 23 Bins, Sig 0.05		Poor (0%)	Poor (0%)	Good (100%)	Good (100%)	Poor (0%)

Summary

- There are many different ways to review your Risk Results
 - ACE
 - Input Results Viewer (BY Risk Statistics)
 - Traceback Navigator
 - POST & CO\$TAT
 - Risk Statistics Report
 - Tornado Report
 - JCL and Distribution Finder