Case Example 1:

Team Experience (experts, average, novice)
Expert developers tend to produce smaller and more concise programs. They also code faster. Even more important, experts have fewer bugs in their code and they find and remove almost all of them before release.

Novices tend to write bulky code slowly, and their code tends to have distressing numbers of bugs.

Example 1: How Software Risk Master (SRM) Evaluates Programmer Experience Levels						
	Java Language for all 3 Cases					
	1000 function points for all 3 Cases					
	$10,000 per month for all 3 Cases					
	Iterative development for all 3 Cases					
	132 effective work hours per month for all 3 Cases					
	2017 is the 30th anniversary of IFPUG function point metrics					
	Novice Programmers		**Average Programmers**		**Expert Programmers**	
Language Level	5.75		6.00		6.25	
LOC per funct point	55.65		53.33		51.20	
LOC for 1000 FP	55,652		53,333		51,200	**Novices write more code than experts.**
LOC coded per month	500		650		800	**Novices code more slowly than experts.**
Months of coding effort	111.30		82.05		64.00	**Novice effort is greater than expert effort.**

$ cost ($10,000 mo)	$1,113,043		$820,513		$640,000	Novice costs are much higher than experts.
Coding $ per FP	$1,113.04		$820.51		$640.00	
Coding $ per LOC	$20.00		$15.38		$12.50	
Coding team size	7.00		6.00		5.00	Novice teams are usually larger than expert teams.
Coding schedule months	15.90		13.68		12.80	Novice schedules are longer than expert schedules.
Code bugs per FP	2.25		1.15		0.75	
Coding bugs	2,250		1,150		750	Novices produce more bugs in code than experts.
Code bug DRE %	90.00%		95.00%		99.00%	Novices remove fewer bugs from code than experts.
Code bugs removed	2,025		1,093		743	
Code bugs remaining	225		58		8	Novices deliver many more code bugs than experts.

Bad fix %	12.00%		7.00%		2.50%	Novices make more "bad fixes" than experts.
						(Bad fix = new bug in bug repairs. U.S. average is 7%.)
Bad fixes	27		4		0	
Delivered code bugs	252		62		8	Novices deliver many more code bugs than experts.
High-severity bugs	30		5		0	Novices have more high-severity bugs than experts.
Delivered bugs per FP	0.25		0.06		0.01	
% of average delivered bugs	405.80%		100.00%		12.38%	Poor quality is the #1 difference between novices and experts
% of average cost	135.65%		100.00%		78.00%	Higher cost is the #2 difference between novices and experts

% of average staffing	**116.67%**		**100.00%**		**83.33%**	**Excess staffing is the #3 difference between novices and experts**
% of average schedule	**116.27%**		**100.00%**		**93.60%**	**Longer schedule is the #4 difference between novices and experts**
% of average code size	**104.35%**		**100.00%**		**96.00%**	**Writing excess code is the #5 difference between novices and experts**
		END OF EXAMPLE			