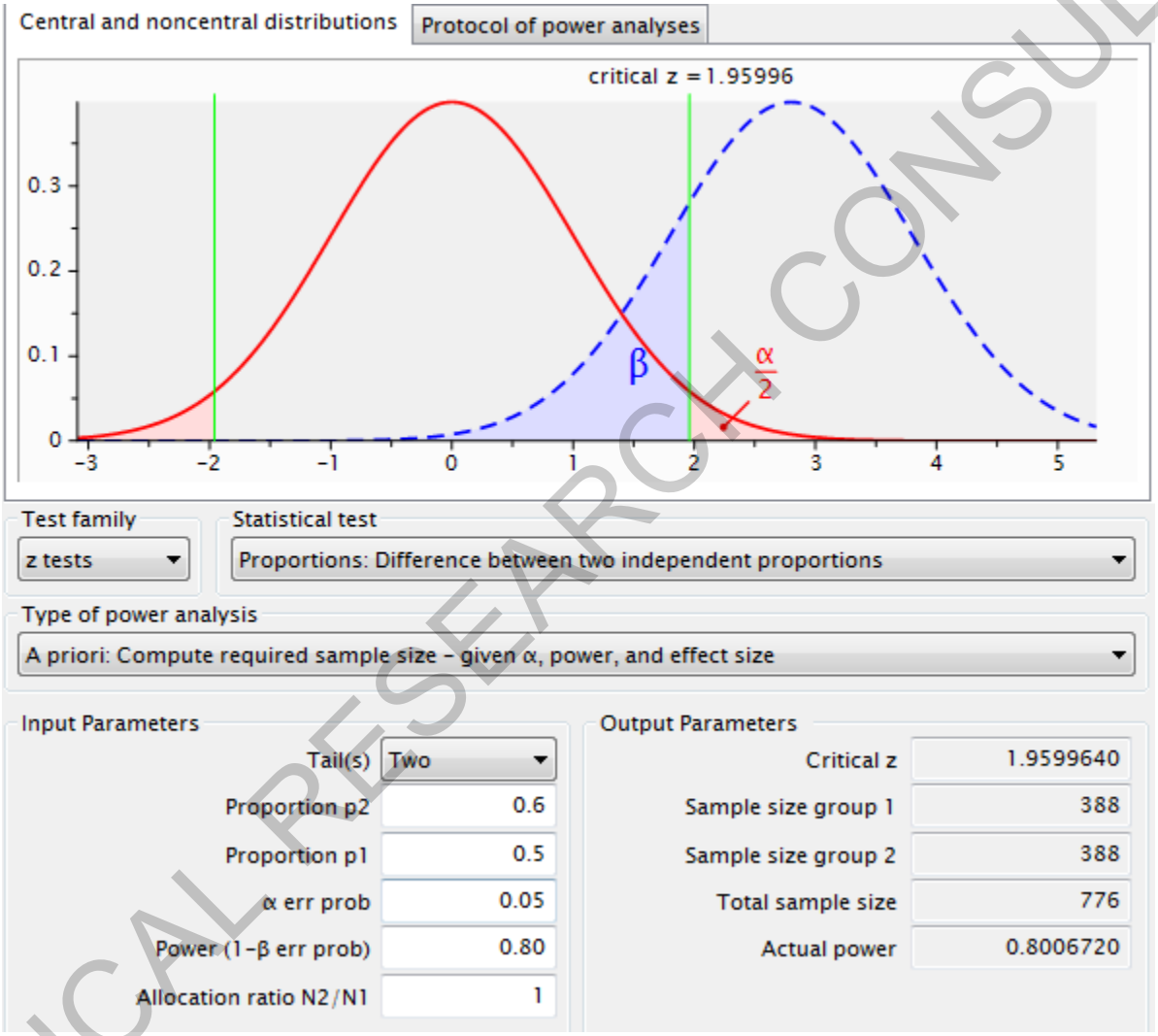
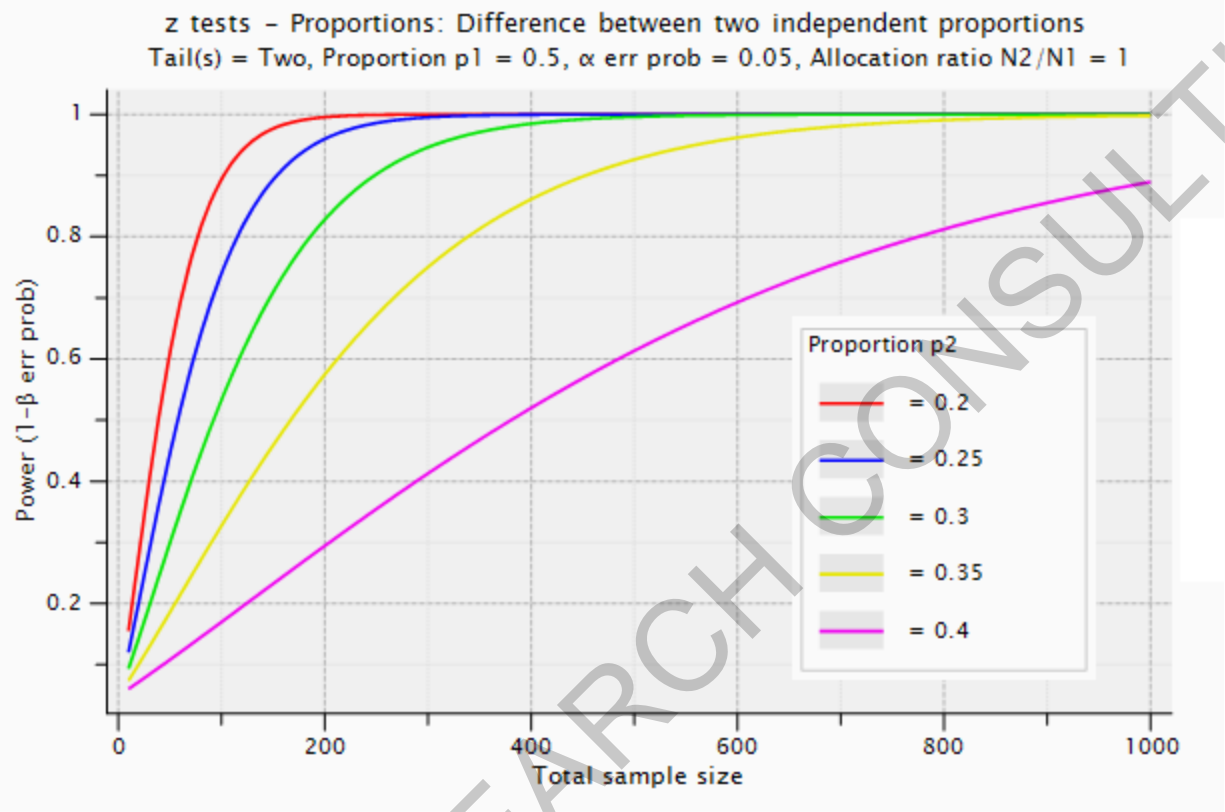
Examples of power estimates

ASSUMPTIONS: Proportion 1 = 0.60, Proportion 2 = 0.50

QUESTION: What sample size is sufficient for a two-tail test (alpha = 0.05) with power =0.80 to be able to statistically detect a decrease in the proportion between groups of .10?



Provide a plot of various proportional in group 2 with an allocation ratio of 1:1



Provide a plot of various proportions for group 2 with an allocation ratio of 1:2

Input Parameters		Output Parameters	
Tail(s)	Two	Critical z	1.9599640
Proportion p2	0.6	Sample size group 1	290
Proportion p1	0.5	Sample size group 2	579
α err prob	0.05	Total sample size	869
Power (1−β err prob)	0.80	Actual power	0.8004566
Allocation ratio N2/N1	2