Two Level:

	σ = 1		σ = 2		σ = 4		σ = 6		σ = 8		σ = 12		σ = 16		σ = 24	
LSE	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA
$\bar{P}$ $\bar{P}$	2.74E-17	1.89E-07	7.11E-11	3.46E-06	1.26E-05	0.00053	0.001495	0.00924	0.014749	0.039599	0.093067	0.144578	0.190955	0.245854	0.322068	0.360554
$(P<0.05)_{count}$	10000	10000	10000	10000	10000	9999	9962	9599	9279	8086	6242	4843	3999	3083	2055	1639

	σ = 1		σ = 2		σ = 4		σ = 6		σ = 8		σ = 12		σ = 16		σ = 24	
MLLE	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA
$\bar{P}$ $\bar{P}$	3.55E-19	4.16E-08	1.00E-11	1.14E-06	5.72E-06	0.00031	0.001019	0.007136	0.011925	0.033626	0.08361	0.132196	0.17715	0.229746	0.305887	0.337842
$(P<0.05)_{count}$	10000	10000	10000	10000	10000	9999	9976	9711	9434	8433	6719	5360	4425	3548	2390	1993

Four Level:

	σ = 1		σ = 2		σ = 4		σ = 6		σ = 8		σ = 12		σ = 16		σ = 24	
LSE	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA
$\bar{P}$	2.93E-17	2.96E-10	6.39E-11	1.64E-07	1.28E-05	0.000398	0.001517	0.011051	0.014311	0.053217	0.092372	0.176324	0.190337	0.282396	0.321119	0.38242
$(P<0.05)_{count}$	10000	10000	10000	10000	10000	9998	9958	9484	9334	7433	6372	3868	4043	2270	2124	1264

	σ = 1		σ = 2		σ = 4		σ = 6		σ = 8		σ = 12		σ = 16		σ = 24	
MLLE	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA
$\bar{P}$	3.77E-19	6.94E-12	8.49E-12	1.42E-08	5.78E-06	0.000139	0.00104	0.006281	0.011527	0.037323	0.082879	0.141429	0.17685	0.237826	0.305086	0.330299
$(P<0.05)_{count}$	10000	10000	10000	10000	10000	9999	9971	9727	9461	8228	6824	4957	4474	3157	2447	1953

Eight Level:

	σ = 1		σ = 2		σ = 4		σ = 6		σ = 8		σ = 12		σ = 16		σ = 24	
LSE	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA
$\bar{P}$	2.80E-17	8.77E-10	5.04E-11	1.85E-06	1.07E-05	0.002341	0.001425	0.033265	0.014978	0.107075	0.092951	0.249264	0.188388	0.337825	0.31722	0.422138
$(P<0.05)_{count}$	10000	10000	10000	10000	10000	9954	9960	8174	9260	5303	6319	2383	4105	1525	2137	908

	σ = 1		σ = 2		σ = 4		σ = 6		σ = 8		σ = 12		σ = 16		σ = 24	
MLLE	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA	Lin. Reg.	ANOVA
$\bar{P}$	3.55E-19	2.96E-13	6.09E-12	1.82E-08	4.71E-06	0.000318	0.000966	0.010597	0.012117	0.050269	0.083501	0.146813	0.174781	0.219479	0.301311	0.290823
$(P<0.05)_{count}$	10000	10000	10000	10000	10000	9994	9974	9482	9425	7719	6752	4650	4521	3397	2442	2377

Figure 5. Average p-values and total significant p-value counts for all simulations with all combinations of levels, sigmas, design methods, and parameter estimation methods. For each level that was simulated, the average p-value and total significant ($p < 0.05$) p-values were tabulated and compared regression-design (Lin. Reg.) to ANOVA-design (ANOVA) for both LSE and MLLE parameter estimation methods. Comparison across a row demonstrates that as σ increases, the average p-value increases and the total number of significant p-values decreases. Comparison down a column, demonstrates that regardless of level, similar average p-values and total significant p-value counts are observed. Comparison of adjacent Lin. Reg. and ANOVA columns for any given level and σ demonstrate that regardless of experiment design, both methods are viable at detecting a treatment effect. From this we can conclude that regardless of level (two, four or eight), design method (ANOVA or regression), or parameter estimation method (LSE or MLLE), there is equal statistical power. The only affecting factor of statistical power is σ. Average p-value gradients: green color indicates a significant average p-value with increasing gradient towards yellow until $p = 0.05$. For $p > 0.05$, the gradient continues increasingly towards red. Total p-count gradients: green color indicates that all simulations demonstrated significance with an increasing gradient towards yellow to red and the total number of significant count decreased.