

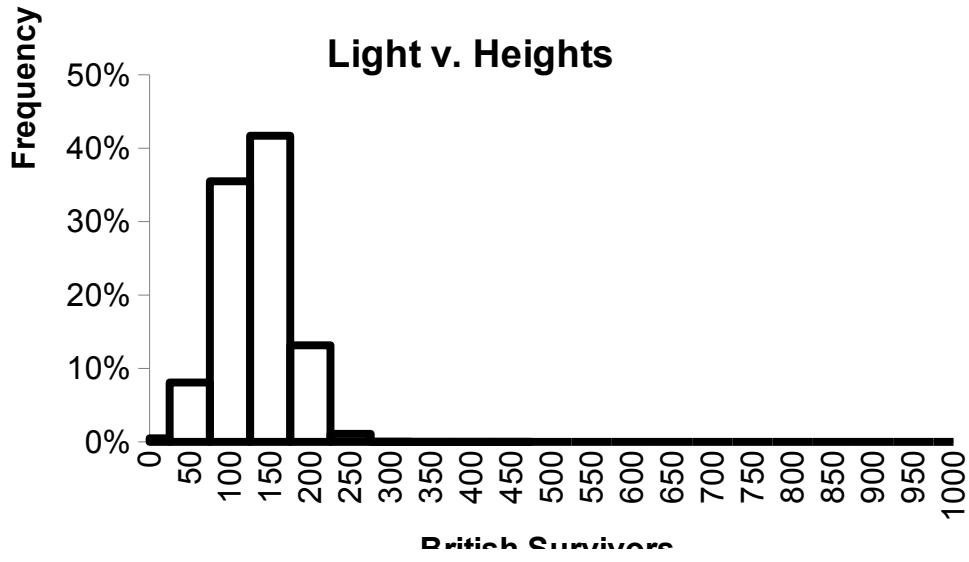
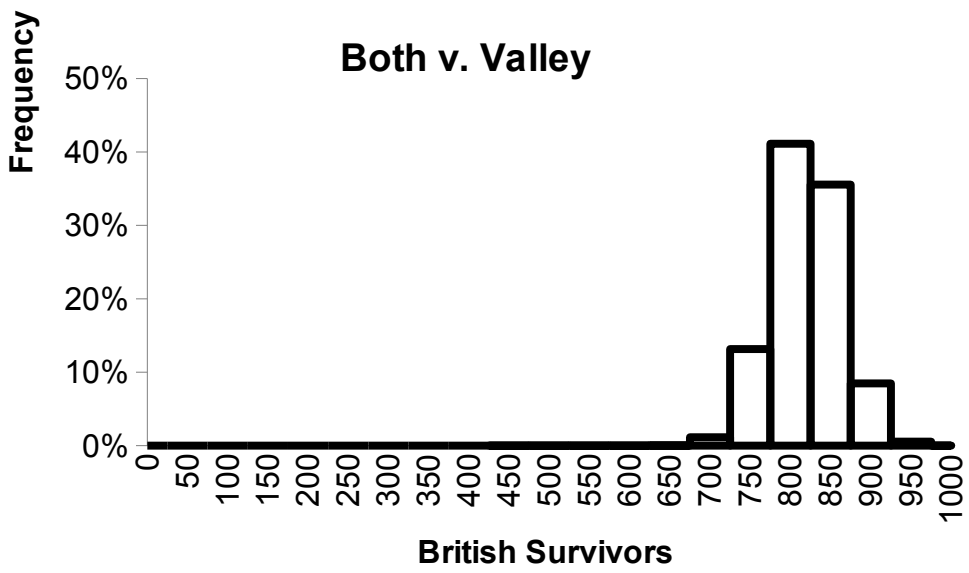
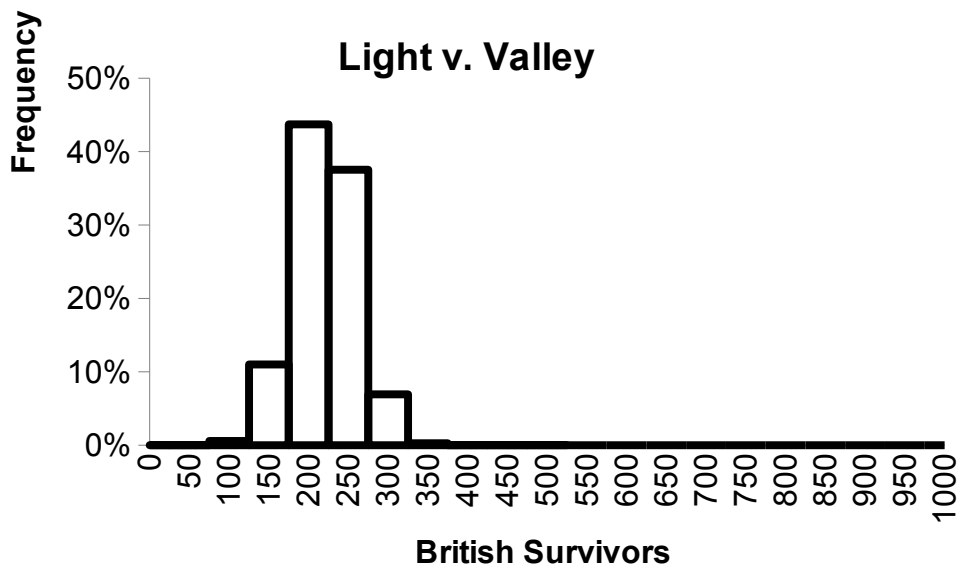
## Balaclava: British Cavalry Charge Models

Connors D, Armstrong MJ, & Bonnett J, 2015, A counterfactual study of the Charge of the Light E  
 Historical Methods: A Journal of Quantitative and Interdisciplinary History 48 #2, 80-89

	Light v. Valley	Both v. Valley	Light v. Heights	Both v. Heights
<b>Deterministic Model</b>				
Initial British cavalrymen	664	1367	664	1367
Total Russian artillery shots	190	232	226	286
Casualties per shot	2.4684	2.4684	2.4684	2.4684
British casualties	469.0	572.7	557.9	706.0
British survivors	195.0	794.3	106.1	661.0
<b>Probabilistic Model</b>				
Probability of each shot hitting	50.0%	50.0%	50.0%	50.0%
Initial British cavalrymen	664	1367	664	1367
Total Russian artillery shots	190	232	226	286
Casualties/hit: mean	4.9368	4.9368	4.9368	4.9368
Casualties/hit: standard deviation	1.6456	1.6456	1.6456	1.6456
Hits: mean	95.0000	116.0000	113.0000	143.0000
Hits: standard deviation	6.8920	7.6158	7.5166	8.4558
Casualties: mean	469.0	572.7	557.9	706.0
Casualties: standard deviation	37.6	41.6	41.0	46.2
Survivors: mean	195.0	794.3	106.1	661.0
Survivors: 95th percentile	256.9	862.7	173.6	737.0
Survivors: 5th percentile	133.1	726.0	38.7	585.1
<b>Survivor Distribution</b>				
0	0.0%	0.0%	0.5%	0.0%
50	0.0%	0.0%	8.1%	0.0%
100	0.6%	0.0%	35.5%	0.0%
150	11.0%	0.0%	41.7%	0.0%
200	43.7%	0.0%	13.1%	0.0%
250	37.5%	0.0%	1.1%	0.0%
300	6.9%	0.0%	0.0%	0.0%
350	0.3%	0.0%	0.0%	0.0%
400	0.0%	0.0%	0.0%	0.0%
450	0.0%	0.0%	0.0%	0.0%
500	0.0%	0.0%	0.0%	0.0%
550	0.0%	0.0%	0.0%	0.8%
600	0.0%	0.0%	0.0%	8.5%
650	0.0%	0.0%	0.0%	31.3%
700	0.0%	1.1%	0.0%	39.5%

750	0.0%	13.1%	0.0%	17.2%
800	0.0%	41.1%	0.0%	2.6%
850	0.0%	35.6%	0.0%	0.1%
900	0.0%	8.5%	0.0%	0.0%
950	0.0%	0.5%	0.0%	0.0%
1000	0.0%	0.0%	0.0%	0.0%

3brigade



# BRITISH SURVIVORS

