

Simulation # 1

Sensitivity of DP Count To Laplace Parameters

Laplace MU=0 and B= 3.00000000

Individual Census Count Perturbed using Laplace Distribution

Effect on Cumulative Table Count Values

Real Count	DP_Count	Difference	% Difference	Last Adjustment
1	1.581	0.581	58.07009	0.58070
2	-1.219	-3.219	-160.92558	-3.79921
3	-3.561	-6.561	-218.68475	-3.34203
4	0.514	-3.486	-87.14472	3.07475
5	-12.328	-17.328	-346.55075	-13.84175
6	-12.259	-18.259	-304.31891	-0.93160
7	-14.216	-21.216	-303.09204	-2.95731
8	-17.275	-25.275	-315.94202	-4.05892
9	-16.295	-25.295	-281.05063	-0.01919
10	-21.502	-31.502	-315.01892	-6.20734
11	-20.101	-31.101	-282.73413	0.40114
12	-18.457	-30.457	-253.80991	0.64357
13	-14.734	-27.734	-213.34024	2.72296
14	-19.409	-33.409	-238.63834	-5.67514
15	-16.276	-31.276	-208.50497	2.13362
16	-14.194	-30.194	-188.71454	1.08142
17	-5.925	-22.925	-134.85353	7.26923
18	-2.428	-20.428	-113.48730	2.49738
19	-8.673	-27.673	-145.64476	-7.24479
20	-3.692	-23.692	-118.46100	3.98031
21	1.412	-19.588	-93.27583	4.10428
22	4.537	-17.463	-79.37917	2.12451
23	4.009	-18.991	-82.57100	-1.52791
24	3.044	-20.956	-87.31790	-1.96497
25	1.549	-23.451	-93.80215	-2.49424
26	7.739	-18.261	-70.23395	5.18971
27	11.445	-15.555	-57.61113	2.70582
28	11.242	-16.758	-59.85173	-1.20348
29	2.600	-26.400	-91.03582	-9.64190
30	2.345	-27.655	-92.18334	-1.25462
31	-0.518	-31.518	-101.67203	-3.86332
32	-1.449	-33.449	-104.52678	-1.93024
33	-4.225	-37.225	-112.80357	-3.77661
34	4.827	-29.173	-85.80391	8.05185
35	6.098	-28.902	-82.57800	0.27103
36	7.701	-28.299	-78.60929	0.60295
37	8.187	-28.813	-77.87259	-0.51351
38	9.544	-28.456	-74.88423	0.35685

39	12.808	-26.192	-67.15900	2.26400
40	15.456	-24.544	-61.35970	1.64813
41	17.455	-23.545	-57.42715	0.99875
42	18.778	-23.222	-55.29134	0.32277
43	20.593	-22.407	-52.10905	0.81547
44	25.044	-18.956	-43.08167	3.45096
45	26.658	-18.342	-40.75977	0.61404
46	27.174	-18.826	-40.92520	-0.48370
47	28.919	-18.081	-38.47012	0.74464
48	30.450	-17.550	-36.56258	0.53091
49	30.351	-18.649	-38.05970	-1.09921
50	34.740	-15.260	-30.51917	3.38967
51	34.738	-16.262	-31.88595	-1.00225
52	31.932	-20.068	-38.59161	-3.80580
53	32.832	-20.168	-38.05241	-0.10014
54	27.206	-26.794	-49.61853	-6.62623
55	28.354	-26.646	-48.44772	0.14776
56	25.810	-30.190	-53.91080	-3.54380
57	25.799	-31.201	-54.73824	-1.01075
58	28.459	-29.541	-50.93250	1.65995
59	30.609	-28.391	-48.11991	1.15010
60	31.676	-28.324	-47.20616	0.06705
61	33.375	-27.625	-45.28646	0.69895
62	33.947	-28.053	-45.24654	-0.42812
63	39.606	-23.394	-37.13340	4.65882
64	49.161	-14.839	-23.18573	8.55518
65	57.745	-7.255	-11.16181	7.58369
66	66.225	0.225	0.34163	7.48065
67	68.003	1.003	1.49711	0.77759
68	67.749	-0.251	-0.36854	-1.25367
69	61.889	-7.111	-10.30555	-6.86022
70	62.208	-7.792	-11.13077	-0.68071
71	61.156	-9.844	-13.86441	-2.05219
72	64.151	-7.849	-10.90115	1.99490
73	62.221	-10.779	-14.76595	-2.93031
74	67.284	-6.716	-9.07502	4.06363
75	62.263	-12.737	-16.98227	-6.02119
76	62.141	-13.859	-18.23535	-1.12216
77	61.753	-15.247	-19.80085	-1.38779
78	60.241	-17.759	-22.76808	-2.51245
79	59.228	-19.772	-25.02825	-2.01322
80	60.695	-19.305	-24.13073	0.46773
81	56.589	-24.411	-30.13670	-5.10614
82	58.669	-23.331	-28.45197	1.08011
83	70.099	-12.901	-15.54343	10.42957
84	72.717	-11.283	-13.43165	1.61846
85	75.654	-9.346	-10.99529	1.93659
86	72.938	-13.062	-15.18808	-3.71575
87	79.190	-7.810	-8.97735	5.25146

88	84.615	-3.385	-3.84681	4.42510
89	86.268	-2.732	-3.06916	0.65365
90	96.497	6.497	7.21845	9.22816
91	97.539	6.539	7.18531	0.04202
92	97.858	5.858	6.36771	-0.68034
93	98.846	5.846	6.28645	-0.01189
94	98.778	4.778	5.08336	-1.06804
95	105.827	10.827	11.39655	6.04836
96	106.408	10.408	10.84209	-0.41831
97	110.905	13.905	14.33465	3.49620
98	107.425	9.425	9.61715	-4.47981
99	108.814	9.814	9.91337	0.38942
100	109.090	9.090	9.08950	-0.72473
101	126.314	25.314	25.06342	16.22455
128	194.489	66.489	51.94472	2.39564
256	262.585	6.585	2.57227	1.09237
512	423.554	-88.446	-17.27469	-1.12387
1024	824.491	-199.509	-19.48326	1.51885
2048	2128.623	80.623	3.93667	-4.12290
4096	4337.045	241.045	5.88489	-0.12323
8192	8199.695	7.696	0.09394	-3.11379
16384	16313.963	-70.037	-0.42747	0.20766
32768	33511.910	743.911	2.27023	-5.02067
65536	66332.258	796.258	1.21499	0.70802
131072	133018.172	1946.178	1.48482	-2.89866
262144	260761.672	-1382.321	-0.52731	0.74964
524288	521357.312	-2930.697	-0.55899	-0.30848
1048576	1048100.190	-475.786	-0.04537	-3.98824
2097152	2097315.500	163.474	0.00780	-0.03217
4194304	4193036.750	-1267.314	-0.03022	-2.47158
8388608	8375290.000	-13317.951	-0.15876	1.23538
16777216	16766612.000	-10604.027	-0.06320	0.43559
33554432	33560844.000	6411.442	0.01911	-0.94265
67108864	67138592.000	29726.619	0.04430	7.60699
134217728	134224432.000	6696.481	0.00499	-3.59546
268435456	268474656.000	39201.113	0.01460	0.19640