
Modelling the performance of the service

observation service unit: (in seconds)

E(interarrival)	109.2258475
E(service)	35.13311059
lam	0.009155342095
mu	0.02846317856
Ws	35.13311059
Wq	32.73492416
W	67.86803475
Ls	0.3216556465
Lq	0.2996994292
L	0.6213550757

M1 model: (M/M/1):

Estimate of W: 52.37006297718305
Conf int of W: (52.07120463348283, 52.66892132088328)
Estimate of WQ: 16.971467155669075
Conf int of WQ: (16.75205494449117, 17.19087936684698)
Estimate of WS: 35.39859582151399
Conf int of WS: (35.28256770072158, 35.51462394230641)

Estimate of L: 0.47948589801763075
Conf int of L: (0.4761449533329181, 0.4828268427023434)
Estimate of LQ: 0.15540127743022178
Conf int of LQ: (0.15321057029150367, 0.15759198456893989)
Estimate of LS: 0.324084620587409
Conf int of LS: (0.3226564574624767, 0.3255127837123413)

Estimate of B: 0.324084620587409
Conf int of B: (0.3226564574624767, 0.3255127837123413)

M2 model: (M/G/1):

Estimate of W: 47.832741165061755
Conf int of W: (47.682156019681194, 47.983326310442315)
Estimate of WQ: 12.39652604817905
Conf int of WQ: (12.278205126664854, 12.514846969693245)
Estimate of WS: 35.43621511688269
Conf int of WS: (35.37489030521436, 35.49753992855103)

Estimate of L: 0.438452830353576
Conf int of L: (0.4363993376401845, 0.4405063230669675)
Estimate of LQ: 0.11364297532081429

Conf int of LQ: (0.11240666860153169, 0.11487928204009688)
 Estimate of LS: 0.32480985503276166
 Conf int of LS: (0.32380505392232567, 0.32581465614319766)

Estimate of B: 0.32480985503276166
 Conf int of B: (0.32380505392232567, 0.32581465614319766)

M3 model: (Empirical distribution)

Estimate of W: 65.01291704930924
 Conf int of W: (64.6771825779323, 65.34865152068618)
 Estimate of WQ: 29.676469406179653
 Conf int of WQ: (29.368098569878374, 29.98484024248093)
 Estimate of WS: 35.33644764312958
 Conf int of WS: (35.26209062109471, 35.410804665164456)

Estimate of L: 0.588648488677181
 Conf int of L: (0.5842385101074142, 0.5930584672469478)
 Estimate of LQ: 0.26873491711980846
 Conf int of LQ: (0.26535969986464214, 0.2721101343749748)
 Estimate of LS: 0.3199135715573725
 Conf int of LS: (0.3185865245201804, 0.3212406185945646)

Estimate of B: 0.3199135715573725
 Conf int of B: (0.3185865245201804, 0.3212406185945646)

	M1	M2	M3	observation system
W	52.370062977183	47.832741165061	65.012917049309	67.86803475
Wq	16.971467155669	12.396526048179	29.676469406179	32.73492416
WS	35.398595821513	35.436215116882	29.676469406179	35.13311059
L	0.4794858980176	0.4384528303535	0.5886484886771	0.6213550757
Lq	0.1554012774302	0.1136429753208	0.2687349171198	0.2996994292
LS	0.3240846205874	0.3248098550327	0.3199135715573	0.3216556465