

Parameter Estimation

QuestQ

1 Initial Model

The following population parameters were estimated by collecting queuing behavior data and modeling parameter distributions:

- Non-Peak Inter-arrival time, $\lambda = \exp(90)$
- Peak Inter-arrival time, $\lambda = \exp(45)$
- Fixed Service time, $\mu = 45$ seconds

2 Alternative Model

- Non-Peak Inter-arrival time, $\lambda = \exp(90)$
- Peak Inter-arrival time, $\lambda = \exp(45)$
- Payment time, $\mu_p = 20$ seconds
- Food Preparation time, $\mu_f = N(20, 10), \min = 10$ seconds