

### Cruise Line - Data for Process Design.

The cruise line has the following data, and they expect to bring in-house about 30% of the reservation activity. Then approximately 113,000 reservations per year will be done in-house. Assume we operate 360 days/year, then this is 315 reservations per day.

		# cruises/yr	Average price	# cabins
Bahamas	ship 2	120	420	500
Bahamas	ship 3	90	480	500
Day	ship 4	548	40	500

Time studies were conducted and the data shown below was obtained. Assume the coefficient of variation for the entire process and each step is 0.2. Assume the arrivals are distributed evenly throughout the working day.

The Cruise Reservation Process should include the following steps:

Task	Percent of reservations doing this step	Estimated Mean Time (assuming 1 person does all work) all time in minutes
Is this a group or individual reservation? If a group then group options need to be selected	100%	0.5
Determine Cruise Destination and Departure	100%	1.5
Check Availability	100%	1
Select Cabin	100%	3
Is Air Transportation needed? If yes, then select Air Transportation	30%	5
Is Hotel stay needed? If yes, then select hotel	30%	5
Obtain Guest Data	100%	5
Select Meal Plan	100%	2
Offer Shore Excursions.	100%	5
For each shore excursion selected make reservation for shore excursion	50% select NO shore excursion 30% select 1 shore excursion 20% select 2 shore excursions	1
Confirm reservation data	100%	1
Obtain payment information (credit card)	100%	0.75
Validate credit card and make down payment.	100%	1.5