Manzana Insurance – Fruitvale Branch

- Intent:
  - Examine design of a service operation
  - Diagnose root causes for poor service
  - Develop recommendations to remedy

What are the issues facing Manzana?

- Deteriorating financial performance
- Losses are increasing. Why?
- Late renewals – 45%
- Lost renewals – 45%
- Long TATs – 6 days
- Golden gate is gaining share
- Golden Gate announced one day service

How does Fruitvale compete?

- Service to independent agents: selling and pricing policies; handling claims
- Competitive rates
- Turn around time – especially for pricing policies

Assessment of Current Operating Policies

- Priority to RAPS and RUNS

- Release policy for RERUNS

- Quotation of due dates based on times to clear back log

- UW's assigned to territories; handle all requests

What is most profitable?

	Dist	UW	Rate	P W	Premium
RUNS	1.14	0.73	1.26	1.18	$6,570
RAPS - S	1.04	0.79	1.21	1.18	$6,570
RAP - U	1.04	0.79	1.21		0
RAIN	0.73	0.38	1.09	0.90	$610
RERUNS	0.47	0.31	1.26	0.84	$5,820

What are the actual wait times?

	Backlog	Requests/ day	Wait Time
RUNS	4 - 9	2.92	
RAPS	9 - 14	12.38	
RAIN	21 - 33	3.65	
RERUNS	328 - 351	16.96	

What are the actual wait times?

	Backlog	Requests/ day	Wait Time
RUNS	**4 - 9**	**2.92**	**2 - 3 days**
RAPS	**9 - 14**	**12.38**	**1 day**
RAIN	**21 - 33**	**3.65**	**6 – 9 days**
RERUNS	**328 - 351**	**16.96**	**20 days**

How long should a request wait?

- What are the work loads
- How much queuing to expect?
- What queuing model might apply here?

Work Load from 1992 Data

	1992 Volume	Volume/day	Dist	UW	Rating	P W
RUNS	350	2.92	3.33	2.12	3.67	3.45
RAPS - S	230	1.92	1.98	1.50	2.33	2.27
RAP - U	1253	10.44	10.81	8.20	12.67	0.00
RAIN	438	3.65	2.65	1.37	3.98	3.29
RERUNS	2035	16.96	7.91	5.29	21.34	14.16

	Dist	UW	Rating	P W
WORK HOURS PER DAY	26.68	18.48	43.99	23.16
NUMBER OF SERVERS	4	3	8	5
HOURS PER SERVER PER DAY	6.67	6.16	5.50	4.63
RHO - UTILIZATION	0.89	0.82	0.73	0.62

Possible Queue-Analysis: 1992 Data

	Dist	UW	Rating	P W
WORK HOURS PER DAY	26.68	18.48	43.99	23.16
NUMBER OF SERVERS	4	3	8	5
HOURS PER SERVER PER DAY	6.67	6.16	5.50	4.63
RHO - UTILIZATION	0.89	0.82	0.73	0.62
RHO/(1-RHO)	8.04	4.60	2.75	1.62
AVE PROCESS TIME	0.74	0.52	1.23	0.91
C OF V – SERVICE	0.90	0.90	0.20	0.33
C OF V – ARRIVALS	1.00	0.90	0.90	0.50
E[QUEUE WAIT] (HRS), M/M/k	1.29	0.66	0.19	0.12
E[QUEUE WAIT] (HRS), M/G/k	1.17	0.59	0.10	0.07

What do you recommend?

- Pooling UWs to balance utilization, or re-align territories
- Release RERUNS in advance, e.g., 5 – 10 days before due
- Change priorities to provide quick turnaround to RUNs, RAPs, RAINs, and meet due dates for RERUNs
- Change method for quoting due dates
- Change incentive systems to match business metrics

Summary

- Diagnosis of service system with high sensitivity to response times

- Need to understand current state – why are response times and performance degrading?

- Then explore simple fixes based on this understanding

- Queuing model can provide framework for analysis