



Analyzing Multi-Stage Systems

1. Process Flow Diagram
2. Identify Bottlenecks
3. Generate Alternatives
4. Evaluate Alternatives

System Design Parameters



| | | |
|---------------------------|---|----------------------------|
| Predictable Variability | → | Inventory Buildup Diagrams |
| Unpredictable Variability | → | Queueing Theory |



Wrap Up

- Determining Bottlenecks may be deceiving (NCC Dumpers)
- Find Cost Drivers
 - (MD Salaries, Trucks)
- Bang For Buck (Start early, schedule Trucks)
 - NP or Truck Schedules, Start Early
- Variability costs Money
 - Smooth Arrivals & Production