

Learning Objectives:

The student will know the following terminology:

- Airline System-Wide Measures
 - Traffic / Revenue Passenger Miles (RPM)
 - 4 types of traffic
 - Yield
 - Capacity/ Available Seat Miles (ASM)
 - Unit Cost
 - Load Factor = Passengers/ Capacity
 - Average Leg Load Factor
 - Average Network Load Factor
 - Rejected Demand/Spill
- Basic Airline Profit Equation = Revenue - Cost
 - Airline Profit Maximizing Strategies
- Air Transportation Markets
 - Typical Air Passenger Trip
 - Markets
 - Opposite ■ Parallel
 - City-pair ■ Region-pair
 - Direct/ Connecting Flights
 - Dichotomy of Demand and Supply
- Origin-Destination (O-D) Demand
 - Factors affecting Volume of O-D Demand
 - Quality of Service Factors
 - Total Trip Time Model
 - O-D Demand Models
 - Linear/ Additive $D = a - bP$
 - Multiplicative $D = aP^b$ where $b < 0$
 - E_P = Price Elasticity = $\Delta\%$ Demand/ $\Delta\%$ Price
 - Business Passengers - “inelastic”
 - Leisure Passengers - “elastic”
 - E_T = Time Elasticity = $\Delta\%$ Demand/ $\Delta\%$ Time
 - Business Passengers - “elastic”
 - Leisure Passengers - “inelastic”
 - Saturation Frequency
 - 4 Types/ Segments of Air Travel Demand
 - O-D Market Demand Function - $D = M \times P^a \times T^b$
- Airline Competition
 - Market Share
 - Frequency Share
 - Market Share / Frequency Share Model “S-curve”

The student will be able to perform the following analysis (i.e. problems):

- What do airlines do to maximize revenues
 - Elastic vs. inelastic airfares
- Calculate
 - Market Share
 - Frequency Share
 - O-D Traffic
 - O-D Supply
 - Price Elasticity
 - Time Elasticity
 - Average Leg Load Factor
 - Average Network Load Factor
 - Basic Airline Profit
 - % Connecting Passengers
 - % Non-Stop Passengers
- Identify from Diagram
 - Point-to-Point vs Hubbing Network
 - Different Markets
- Calculate frequency of service impacts to Total Trip Time Model