

SYST 461/660

Airline Revenue and Cost Analysis I

- 1) Using T100 Segment Data for Jan 2012 for Rhode Island (PVD) perform the following calculations **Airline Network Analysis**.
 - a. Total Seats
 - b. Total Passengers
 - c. System Load Factor
 - d. Total Mile
 - e. Available Seat Miles (ASMs)
 - f. Revenue Passenger Miles (RPMs)
 - g. System Load Factor (RPM/ASM)
 - h. Leg Load Factor for each Airline and Leg (e.g. Piedmont, LGA- PVD)
 - i. Using Leg Load Factors, compute Average Leg Load Factor
 - j. Draw a Histogram of Average Leg Load Factors. What shape is distribution?
 - k. Is Average Leg Load Factor = System Load Factor? Explain.
 - l. Rank the airlines by Average Leg Load Factor
 - m. Rank the airlines by Airline System Load Factor

- 2) Using both T100 Segment Data (Jan 2012 for Rhode Island (PVD)) AND P.12 Data (Q1 2012), perform the following calculations **for each Airline**:
 - a. Cost per Flight
 - b. Revenue per Flight
 - c. Profit per Flight
 - d. Rank the Airlines by Cost per Flight, Revenue per Flight, and Profit per Flight.
 - e. Which airlines appear to operate as Low Cost Carriers (LCCs) ?
 - f. Which airline(s) have the lowest cost-per-flight? Which factor(s) contribute to the lowest cost per flight: maintenance, pax service, aircraft service, promotional, general admin, general services, depreciation amortization, transportation services.
 - g. Which airline(s) have the highest cost-per-flight? Which factor(s) contribute to the highest cost per flight: maintenance, pax service, aircraft service, promotional, general admin, general services, depreciation amortization, transportation services.
 - h. Using Average Leg Load Factor data from #1, which airline generates the most/least revenue per passenger.
 - i. Which airline would you invest in? why?

**** Convert Quarterly data to monthly data. Assume same number of operations for each month in quarter. DOUBLE CHECK UNITS (e.g. x 1000)**