

Airline Productivity and Cost Analysis

Use BTS Customizer Table (http://apps.bts.gov/xml/air_traffic/src/index.xml#CustomizeTable) to get Monthly data for RPMs, ASMs, Enplanements, Flights, etc. for Geographic Area: Schedule Type: Domestic, Scheduled/Non-Scheduled/Total, Service Class: Passenger.

Use BTS Air Carrier Financial Schedule P-1.2

(http://www.transtats.bts.gov/Fields.asp?Table_ID=295) to get Revenue and Cost data for each airline.

Use BTS Air Carrier Financial : Schedule P-12(a)

(http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=294) to get Fuel Cost data by airline

Use BTS Air Carrier Summary : T1: U.S. Air Carrier Traffic And Capacity Summary by Service Class

(http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=264&DB_Short_Name=Air%20Carrier%20Summary) to get RPM and ASM data

Step 1) Select an Airline (pick a unique airline. Do not pick the same airline as your classmate)

Step 2) Determine whether the airline is considered a Low Cost Carrier (LCC) or a Network Legacy carrier (NLC). See Section 5.2.2 and Figure 5.6. . Explain your choice.

Step 3) Provide 1-2 sentence definitions (with equations if possible) for each of the following terms:

- a. RPMs
- b. ASMs
- c. RASM
- d. CASM
- e. Yield
- f. PRASM
- g. Fuel Consumed
- h. Fuel Costs per ASM
- i. Non-Fuel Costs per ASM
- j. (see definition of Non -Fuel Costs below)

Step 4) Charting and Analysis (**Q3 only 2006 – 2012**)

Plot charts for Q3 only 2001 - 2012 on the x-axis

Label all axes

Display all units clearly

- Chart 1: Plot ASMs and RPMs by quarter on primary y-axis, and Load Factor on secondary y-axis. Summarize trends and transient behavior. Provide explanations where possible.
- Chart 2: Plot Income Before Taxes, Total Operating Expenses and Total Operating Revenue. Summarize trends and transient behavior. Provide explanations where possible.
- Chart 3: Plot RASM, CASM, Yield per RPM, and PRASM on primary y-axis. Summarize trends and transient behavior. Provide explanations where possible.
- Chart 4: Calculate and Plot Aircraft Fuel Operating Expenses and Non-Fuel Operating Expenses (= Wages and Salaries, Other rentals and landing fees, Depreciation and Amortization, Maintenance material s, and repairs, Commissions ..., Rentals..., and Other ...)on the primary y-axis and Fuel Consumed on the secondary y-axis. Summarize trends and transient behavior. Provide explanations where possible.
- Chart 5: Calculate and Plot Aircraft Fuel Operating Expenses per ASM and Non-Fuel Operating Expenses per ASM on the primary y-axis, and Jet Fuel Price on the secondary y-axis. Summarize trends and transient behavior. Provide explanations where possible.

Step 5) Interpretation and Analysis. With reference to Charts 1 through 5, describe the effect of Fuel Prices on:

- a. Expenses (Chart 5, 4, 3)
- b. Airline Finance (Chart 2)
- c. Airline Network Structure (Chart 1)

Use statistical analysis methods where applicable.
Provide short explanations (where possible)