Effects of Deregulation on Airports

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Objective: To explore implications of airline deregulation on airports operations and management

Topics
- Speed of Deregulation
- Hub-and-Spoke Operations
- Competition Among Airports
- Instability of Traffic
- Short Term Horizons
- Conclusions
**Essence of Economic Deregulation**

- **Consumer Orientation**
  to define objectives
- **New Decision-Makers**
  companies not governments
- **Faster changes**
  more risk

**Consumer Orientation**

- When governments cannot determine profit levels (by fare levels, route protection)
- Consumer desires will define criteria for efficiency
- Main consumer desires:
  - **Business Market**
    - Speed: time saved = money
    - Comfort: third party pays
    - Frequency: schedule flexibility
  - **Consumer Market**
    - Cheap fares
    - Speed and access secondary
    - Package deals
Hub - and - Spoke Operations I

- A way to satisfy consumer desires
- Description
  - Drop direct flights between secondary points
  - Substitute flights via hubs central to market, system
    - Higher fuels costs
    - Passengers change at hubs (maybe not to same airline - example: Continental - SAS at New York/Newark)

Hub - and - Spoke Operations I (cont.)

- Description (cont.)
  - Concentrate traffic to hubs
    - More frequency on routes
    - Larger aircraft -- lower cost per seat-km.
    - Higher load factor - lower breakeven per flight
Waves or Banks (1)

Average Arrivals, DFW, June 2000

15 minute intervals

Waves or Banks (2)

Average Departures, DFW, June 2000

15 minute intervals
Hub - and - Spoke Operations II

- **Net Effects:**
  - Lower Overall Costs, Fares for network
  - More Frequency
  - Lower average speed
    - (maybe not more time when schedule delay included)
- **Hub - and - Spoke operations**
  - Cost-Effective
  - Pattern in US, Coming in Europe, Asia

Point to Point Service

- **Direct Flights, Thin Routes**
  - Low Frequency
  - Low Load Factor
  - Smaller Aircraft
Hub and Spoke Service

- Indirect, Heavy Routes via Hub Central to Market
  - High Frequency
  - Higher Load Factor
  - Larger Aircraft

Hub - and - Spoke Operations III: Descriptions

- US Transcontinental
  - Traffic from one coast
    - San Francisco, Los Angeles, Seattle
  - Sent to a Midcontinental Airport
    - Chicago, Denver, Dallas/Ft. Worth...
  - Distributed to Destinations
    - Boston, New York, Philadelphia, ...

- Intercontinental
  - Traffic from Europe
  - Goes to Distribution Points
    - Bangkok, Singapore
  - Distributed to - Australia, Japan, Hong Kong
**Hub - and - Spoke Operations IV**

- **Criteria for a good Hub**
  - Centrality to Market
  - High Capacity
  - Reliability for Schedules
    - low congestion, good weather
  - Control by Airline
    - to maintain schedules
- **Airports with 3/4 traffic with one airline**
  - Minneapolis -- Northwest/KLM
  - Houston/Bush -- Continental
  - Dallas/Fort Worth -- American
  - Atlanta, Cincinnati -- Delta

**Major US East-West Hubs**

- An Airline dominates at each major US East-West Hub
- Hubbing Airline may have up to 80% of the traffic at hub airport

[Map showing major US East-West Hubs with airline names.]
East Coast
North-South Hubs

- Specific markets have their own Hubs
- Along US East Coast, most serve US
  - Miami serves US-Latin America and is central to its market

Major European Hubs
Major East Asian Hubs

Hub - and - Spoke Cargo Operations

- **UPS in United States**
  - Louisville (1 billion items/day)
  - Regional Hub: Cologne, Germany -- Rockford, IL
    - Ontario, CA -- Columbia SC -- Dallas, TX

- **Fedex**
  - Memphis
  - Subic Bay (Philippines) -- Paris

- **Emery** Dayton
- **TNT** Liege (Belgium)
- **DHL** Cincinnati East Midlands (UK)
Major US Cargo Hubs

Competition Among Airports

- **Airports now compete as**
  - Hubs -- many alternatives
    - Amsterdam vs. Frankfurt
    - Bangkok vs. Singapore
    - US midcontinentals
  - Destinations - for tourist packages

- **Relatively new phenomenon due to:**
  - development of hubs
  - increase in consumer travel

- **How could this affect your region?**
Instability of Traffic I

- Deregulation removes barriers to change
  - immediate readjustments
  - frequent bumps
- Automobile Analogy
  - Regulation like shock absorbers
  - Taking shock absorbers out
    - adjustment to new level
    - you feel every bump

Instability of Traffic II

Examples

- San Francisco -- United
  immediate drop of short routes
- Memphis
  Federal Express creates it
  (UPS, Purolator, likewise)
- Newark/New York -- People Express
  hub operations appear, disappear
- Kansas City -- Eastern
  reorganization of network
- Boston -- Northwest
  many ‘definitive’ choices
Short Term Horizons

- **Because of Uncertainties**
  Airlines less ready to make long term commitments only good for short term leases

- **Incompatibility with**
  long term capital investments

- **Therefore, need for**
  - smaller building additions
  - more flexible space
  - more operational solutions
  - more aggressive management!!!

Summary

Deregulation leads to:

- **Significant reorganizations**
- **Strategic planning required**
- **Greater risks than ever**
- **...and less security!!!**