Revenue and Cost Challenges for Traditional Carriers

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Overview: Revenue Challenges

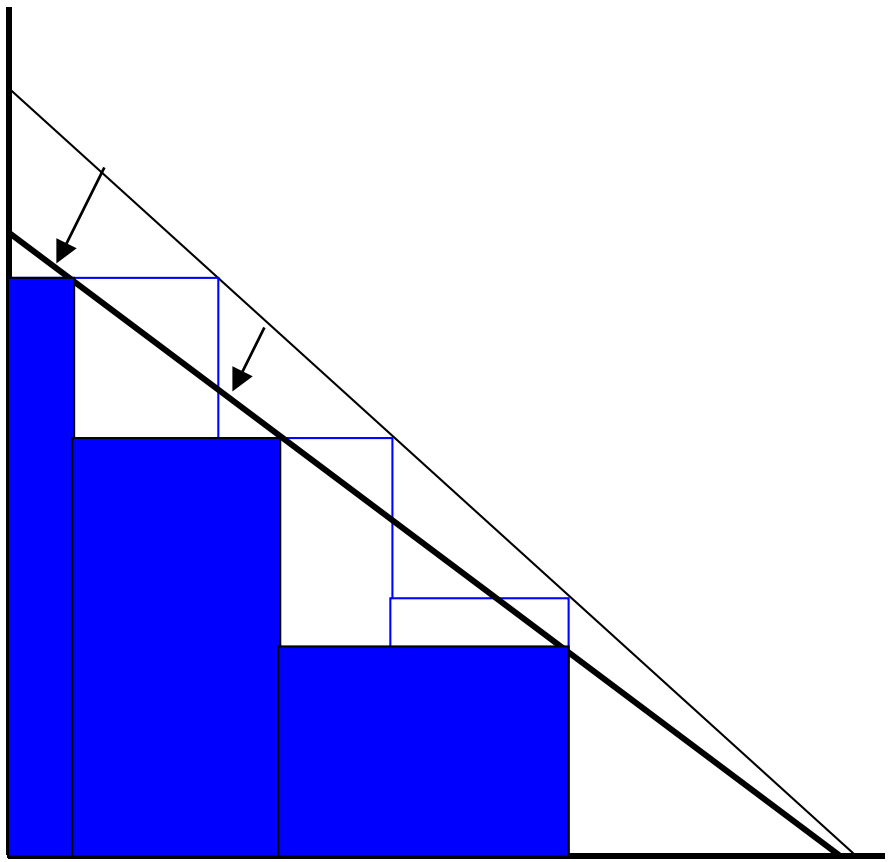
- **Industry profits in late 1990s were driven by improved revenue generation through pricing and distribution:**
  - **Multiple price levels, restrictions and effective revenue management of low fares led to higher load factors and unit revenues ($/ASM)**

- **Ability of network airlines to extract such revenue gains has changed dramatically:**
  - **Business passengers no longer willing to pay 5 to 8 times the lowest available fare on same airline, for same coach seat**
  - **Internet distribution channels give more passengers more information about alternative fares and airline options available**
  - **Perceived value difference between network and low-cost carriers has been diminished by network carriers' service quality cutbacks**

Major Shifts in Demand Since 2000

- **Business demand is estimated to be down by 30%:**
  - Stemming from economic downturn starting in early 2001, made worse by 9/11, security hassles and military actions
  - Remaining business travelers more readily accept restricted lower-priced fare products to avoid paying highest unrestricted fares
- **Traditional carriers initially reacted with:**
  - Cuts in lowest fares to stimulate demand and respond to growing low-fare carrier competition
  - Relaxed restrictions on intermediate fares to attract business travelers and reduce diversion to lowest fares
- **Led to "recovery" of load factors to 75%, but unit revenues (per ASM) still well below 2000:**
  - Can traditional airlines find a new "pricing model" to respond to changed environment, compete with low-fare airlines AND improve revenue quality?

Impacts on Differential Pricing Model



- Lower business demand and reduced willingness to pay highest fares
- Greater willingness to accept restrictions on lower fares
- Reduction in lowest fares to stimulate traffic and respond to LCCs
- Result is lower total revenue and unit RASM, despite stable load factors

Pricing Experiments by Network Carriers

- **Several US Majors have lowered business-type fares and/or reduced restrictions on their purchase/use:**
  - **NW introduced lower "BizFlex" fares with no Sat. night stay**
  - **America West cut unrestricted coach fares across the board**
  - **AA and others have followed with simplified fare structures, including fewer fare tiers and unrestricted fares up to 40% lower**
- **Differential pricing fundamentals remain in place:**
  - **Makes economic sense for airlines to charge more for flexibility and highest-demand flights while selling off "excess" seats at lower but more restricted fares**
  - **ALL low-fare carriers offer differentiated price levels and practice some form of revenue management/seat inventory control (including Southwest and JetBlue)**
  - **Difference with traditional airlines is that their differentiated prices are both less restricted and closer in ratio of fare levels**

MIT Simulations of Passenger Choice

- **Passenger Origin-Destination Simulation (PODS):**
  - Used to simulate passenger choice of fare products, given price levels, restrictions and RM booking limits applied by airline(s)
  - Objective was to replicate the demand, load and revenue shifts experienced by network carriers

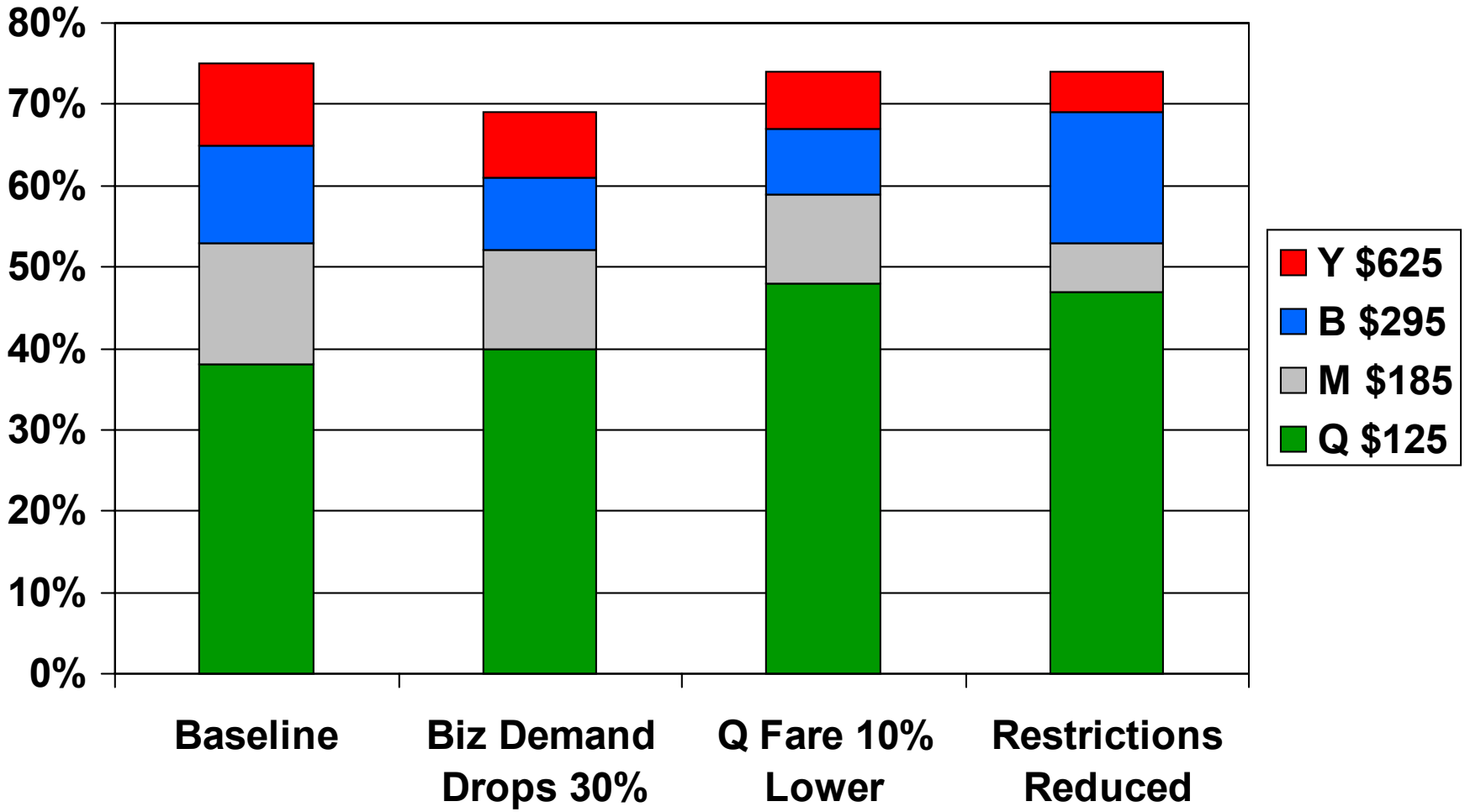
Baseline Fare Structure

Class	Fare	Advance Purchase	Min. Stay	Cancel Fees
Y	$625	No	No	No
B	$295	7 days	Sat.	No
M	$185	14 days	Sat.	Yes
Q	$125	21 days	Sat.	Yes

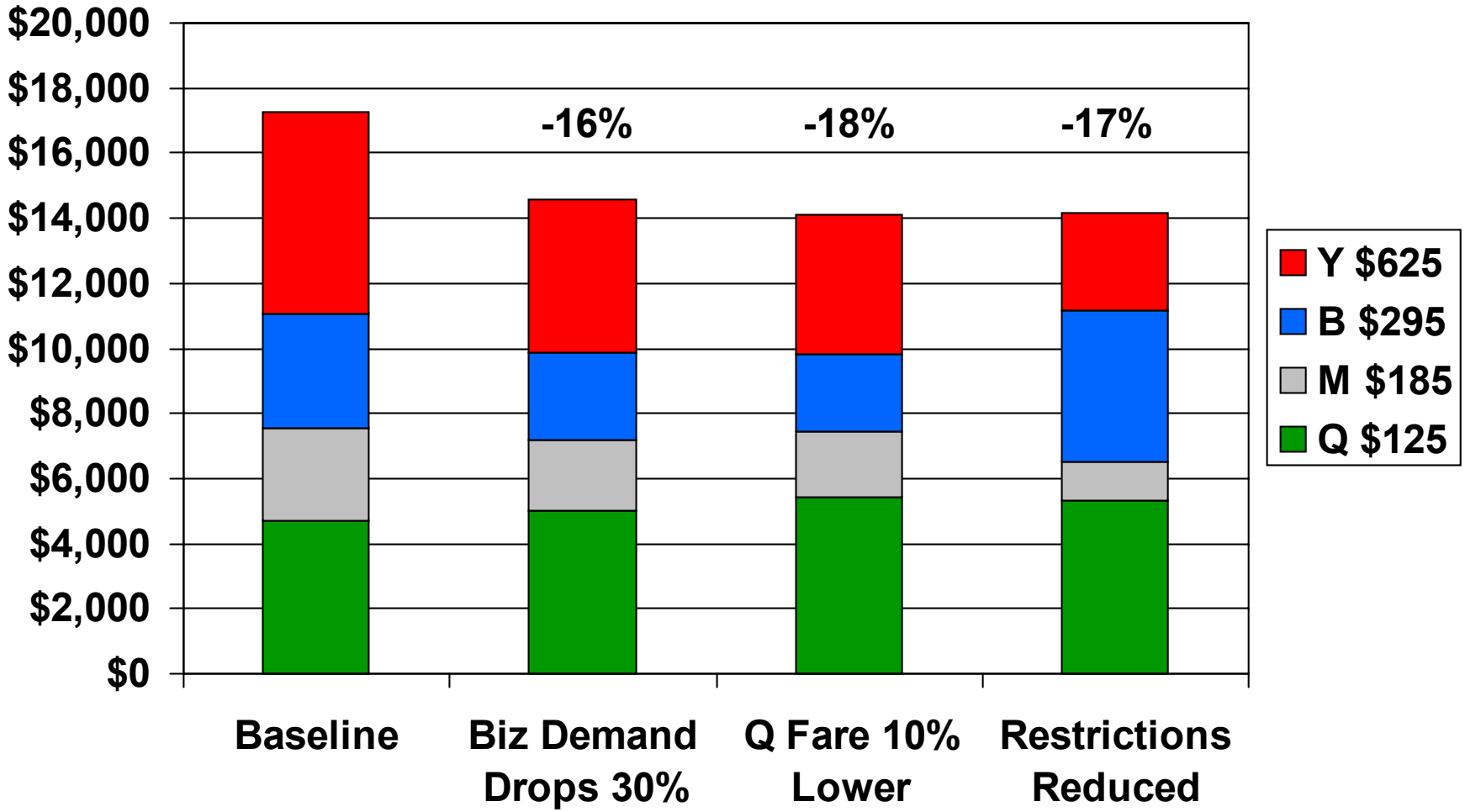
Simulation Scenarios

- **Simulation of demand shifts and initial pricing actions in response to downturn and 9/11:**
  1. **BASELINE – 45% business traffic mix; 75% average load factors**
  2. **Business demand decreases by 30%; no change in fares**
  3. **Lowest (Q) fares decreased by 10% to stimulate leisure demand and load factors**
  4. **Removal of Saturday night stay restriction on intermediate B fare**
- **Results show changes in load factors, passenger fare mix and unit flight revenues:**
  - **Decreased business demand led to 16% drop in flight revenues**
  - **Pricing actions to lower leisure fares and remove restrictions returned load factors to 75%, but did not increase unit revenues**

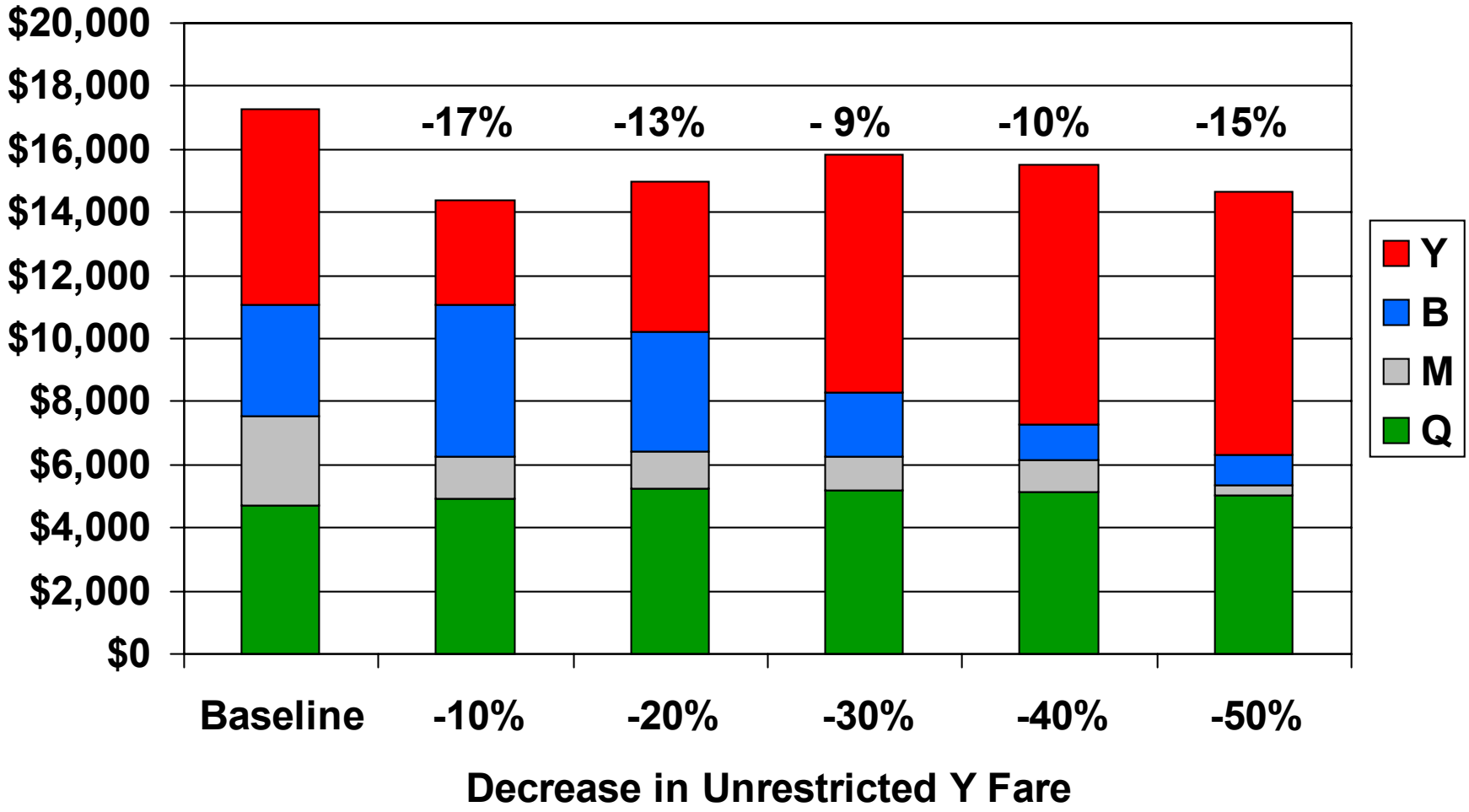
Simulation Scenarios: Passenger Mix and Load Factors



Simulation Scenarios:
Total Revenue per Flight Leg



Reductions in Unrestricted Y Fares
Impacts on Unit (Flight) Revenue



Summary: Revenue Challenges

- **Pricing actions by traditional airlines improved unit revenues, but not enough to return to previous levels:**
  - **Price cuts to stimulate leisure demand and reduce restrictions on business fares returned load factors to 75%, but did not improve revenue quality**
  - **Recent experiments to decrease unrestricted fares have likely succeeded in re-attracting some business passengers**
  - **But, 30-40% fare reductions still leave unit revenues about 10% lower than in 2000**
  - **Further reductions and/or simplification are likely to reduce unit revenues even more**
- **Pricing actions alone cannot return the network airlines to profitability**

Overview: Cost and Productivity Challenges

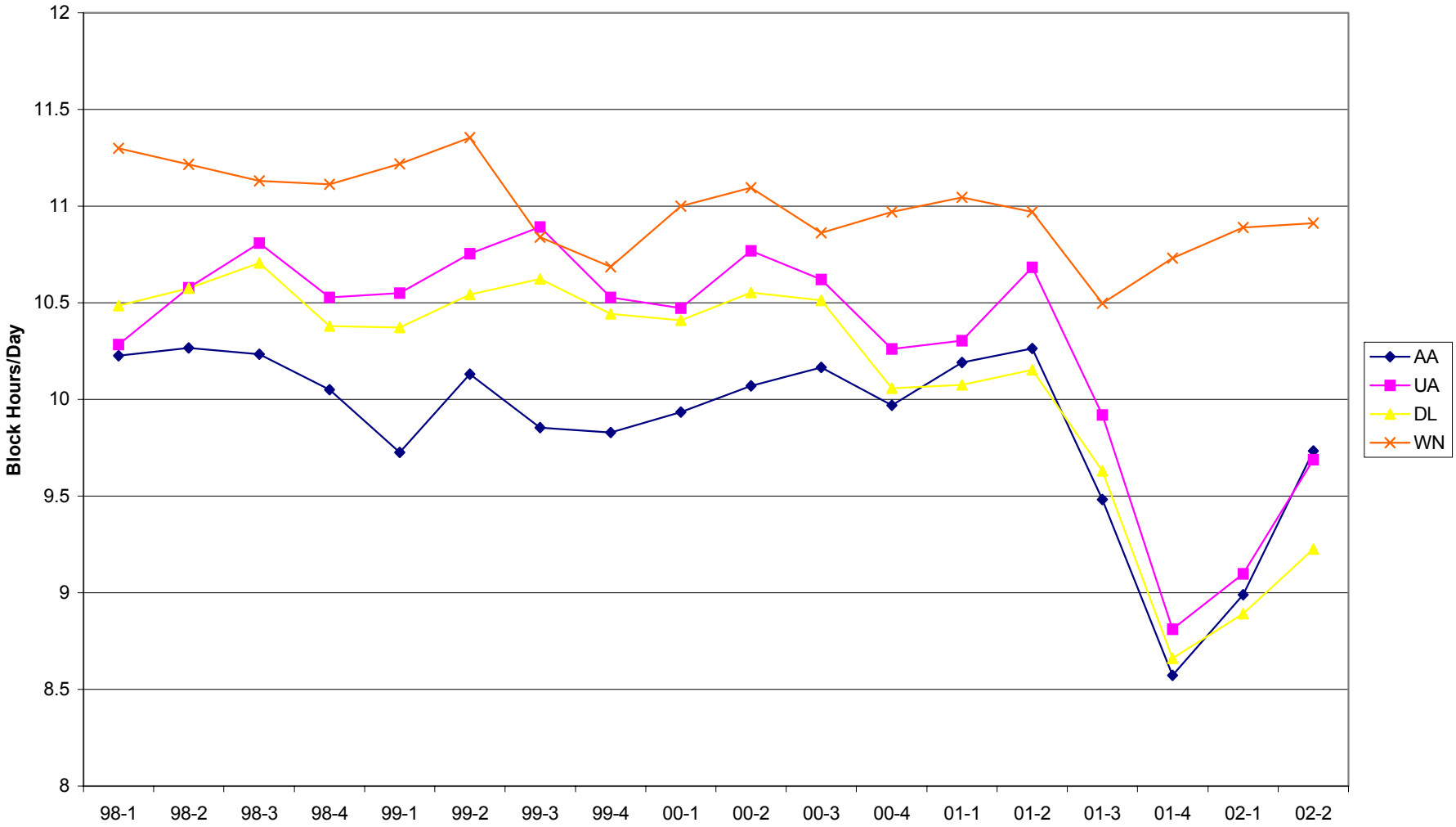
- **Given 10% shortfall in unit revenues, traditional airlines must turn to unit costs to achieve profit:**
  - **Low-cost carriers often used as "benchmark" for unit costs**
  - **Changing work rules, reducing workforce and cutting wage rates are all options for reducing labor unit costs ($ per ASM)**
- **But, unit cost differences are also due to aircraft configuration and pattern of operations:**
  - **"Point-to-point" vs. hub network operations, all-economy seating reflect different products, but also affect unit operating costs**
  - **What portion of unit cost difference between LCCs and network airlines might be explained by such structural differences, not labor or other factors?**

Aircraft Utilization and Productivity

- **Aircraft "utilization" measured in block-hours/day:**
  - **Southwest historically achieved system-wide utilization rates 5-10% higher than other Majors, despite flying shorter stage lengths**
  - **Post-9/11 cutbacks reduced aircraft utilization at Top 3 Majors more dramatically than at Southwest**
- **Aircraft "productivity" measured in ASMs generated per aircraft per day:**

  = (# departures) X (average stage length) X (# seats)
- **Example: B737-500 aircraft operated by CO, UA, WN:**
  - **Each WN aircraft generates 37% - 51% more ASMs per day, with more seats per aircraft, more departures, and more block-hours**
  - **Increased seats and utilization reduce unit aircraft operating costs, as non-variable aircraft costs are spread over more ASMs**

Daily Aircraft Utilization (block-hrs/day)
Top 3 Majors and Southwest



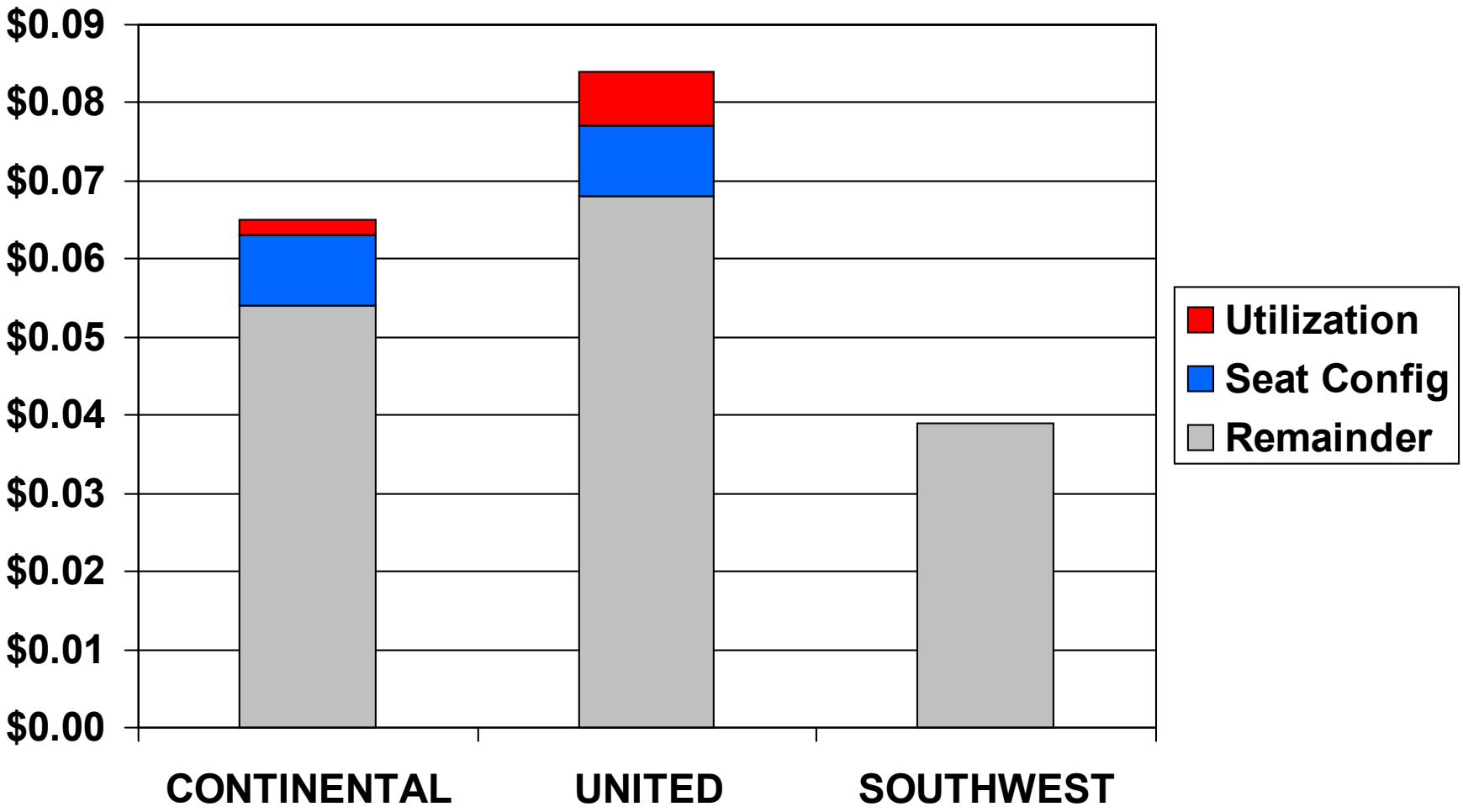
Boeing 737-500 Productivity (2nd Quarter 2002)

Airline	Daily Block Hours	Flights per Day	Avg. Stage Length	Seats	ASMs per Day
Continental	8.3	3.9	719	104	291,626
United	7.5	4.3	564	109	264,347
Southwest	10.2	8.2	400	122	400,160

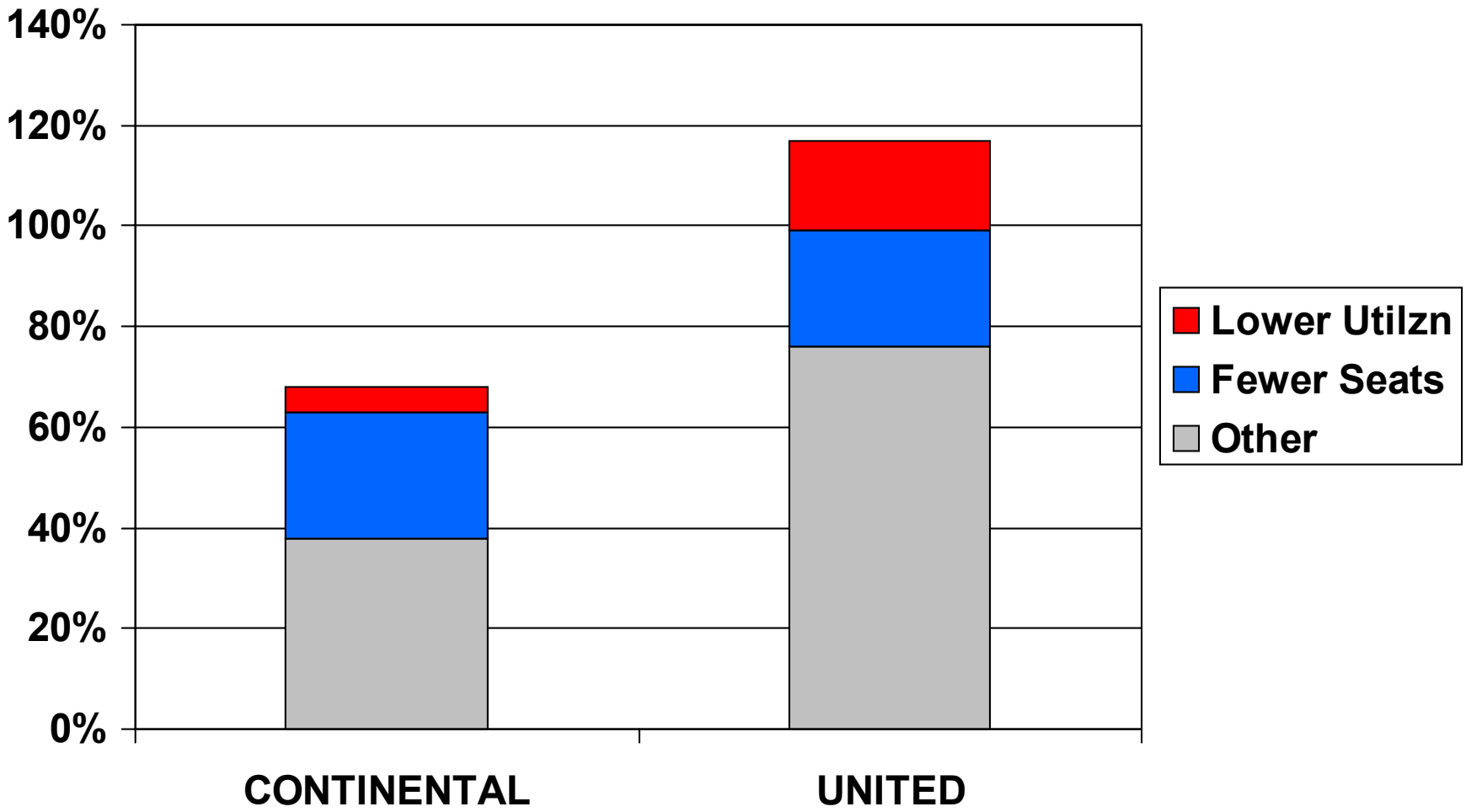
Sources of Unit Cost Differences

- **Analysis of 737-500 cost data to estimate differences attributable to aircraft configuration and utilization:**
  - **Aircraft operating costs represent about 50% of total airline operating expenses**
  - **Other 50% includes ground servicing, sales/reservations and system costs**
- **Combined seat and utilization differences estimated to be 18% and 20% of CO, UA aircraft unit costs:**
  - **Representing 42% and 36% of aircraft unit cost difference with Southwest for B737-500 fleet**
  - **After adjustment, CO and UA aircraft unit costs are still 40-75% higher than Southwest's**
  - **Remaining differences come from different wage rates, employee productivity, plus indirect costs (e.g., maintenance)**

737-500 Aircraft Operating Unit Costs
Utilization and Seat Configuration Differences



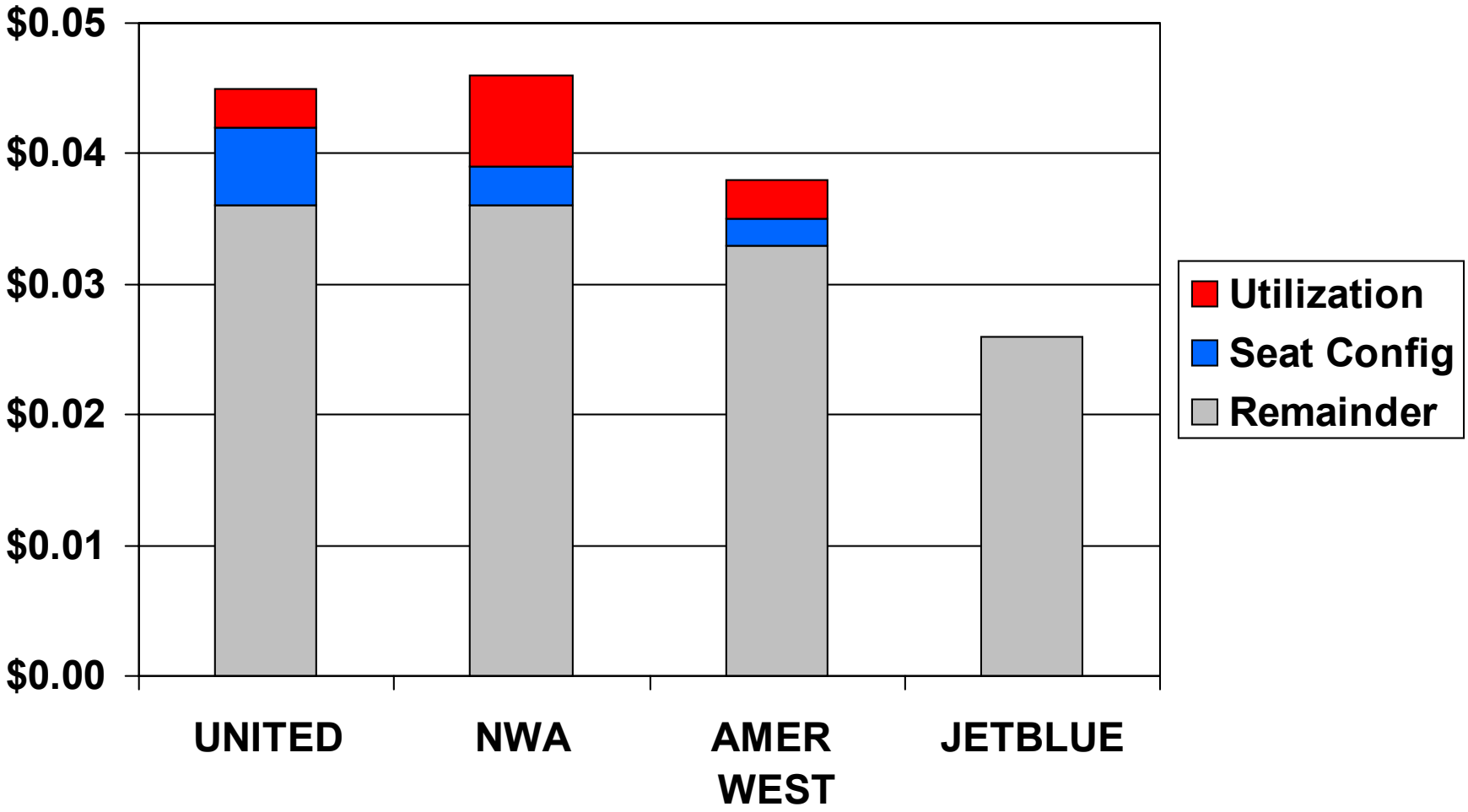
737-500 Aircraft Operating Unit Costs
% Difference from Southwest



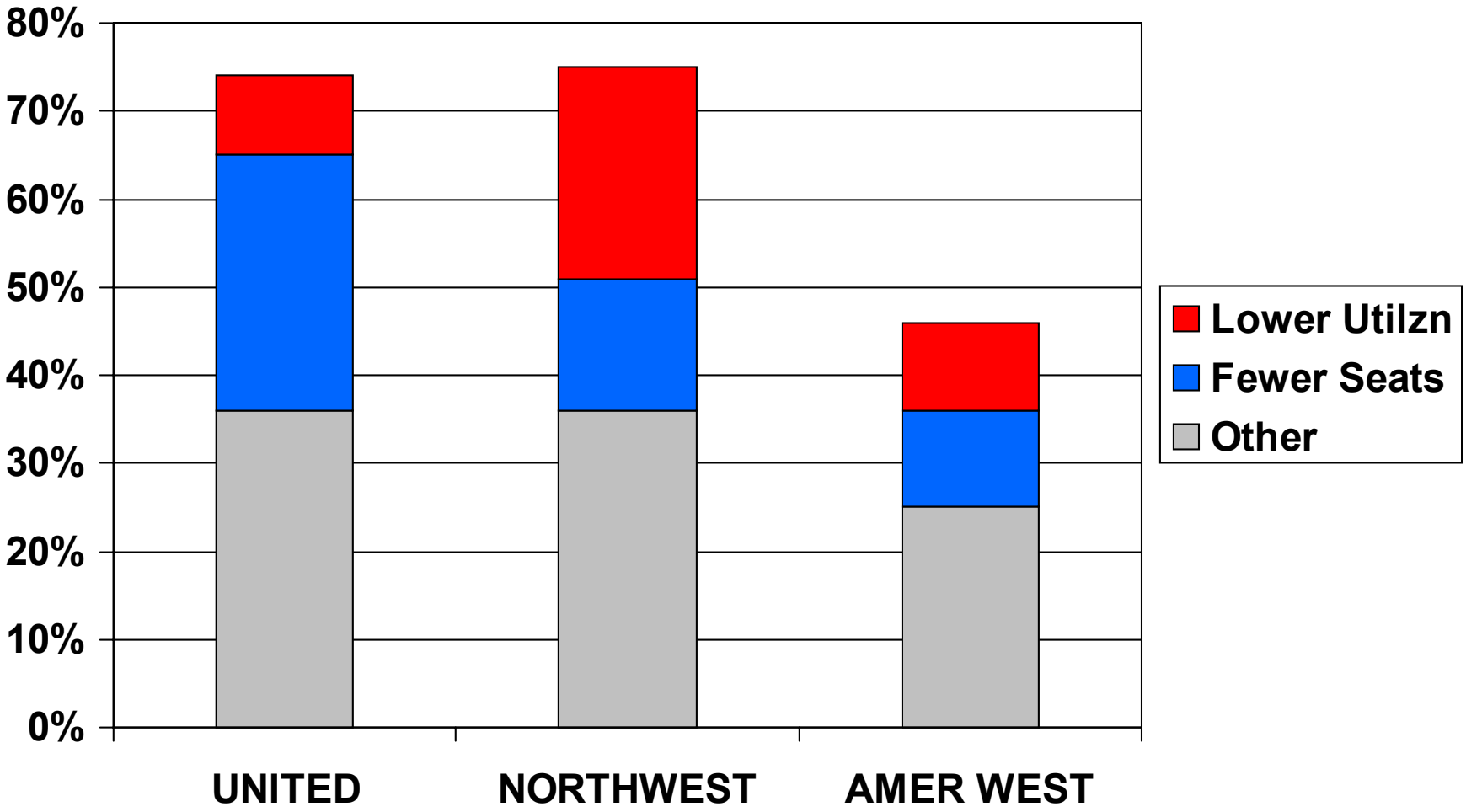
A320 Seat and Utilization Differences

- **Low-cost benchmark for A320 operations is JetBlue:**
  - 13.3 block hours per day utilization is 20-40% higher than Majors
  - 162 seats versus 138-150 on Majors
- **Estimated unit cost differences compared to JetBlue:**
  - With same seat configuration, Majors unit costs would drop 7-16%
  - Under same aircraft utilization, Majors unit costs decrease 6-14% more
- **Combined seat and aircraft productivity differences estimated to be 13% to 21% of Majors' unit costs:**
  - Representing 46% to 52% of aircraft unit cost premium over JetBlue
  - Seats and utilization explain half of JetBlue's unit cost advantage

A320 Aircraft Operating Unit Costs
Utilization and Seat Configuration Differences



A320 Aircraft Operating Unit Costs
% Difference from JetBlue



Summary: Cost and Productivity Challenges

- **Unit cost differences not entirely due to labor costs:**
  - Differences in aircraft productivity can account for up to one half of difference in aircraft operating expenses per ASM
  - Translates into about 25% of total unit cost difference between traditional carriers and LCCs
- **Network carriers are exploring alternatives for increasing aircraft productivity to reduce unit costs:**
  - Continuous connecting banks to reduce ground times at hubs
  - Higher density seating options (e.g. removal of First Class)
  - More “point-to-point” flying to increase aircraft utilization
- **Successful new “business models” will depend on reducing both aircraft and labor unit costs**
  - In addition to fine-tuning fare structures to maximize unit revenues