MIT Guest Lecture
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If Individual Airlines Are Vulnerable, then Why Isn't the Infrastructure that Supports the Industry Vulnerable and At What Point Does the Government Need to Restructure Its Business Approach to the Industry?

Premise

- **Too many of everything**
  - Network Carriers
  - Regional Carriers
  - Low Cost Carriers
  - Hubs
- **Do not underestimate the competitive response of the Legacy Carriers**
  - Everybody is vulnerable
- **We are entering a new phase of growth**
  - Markets are smaller, and they
  - Already have seen both service and price stimulation
  - As a result, stimulation rates will be lower

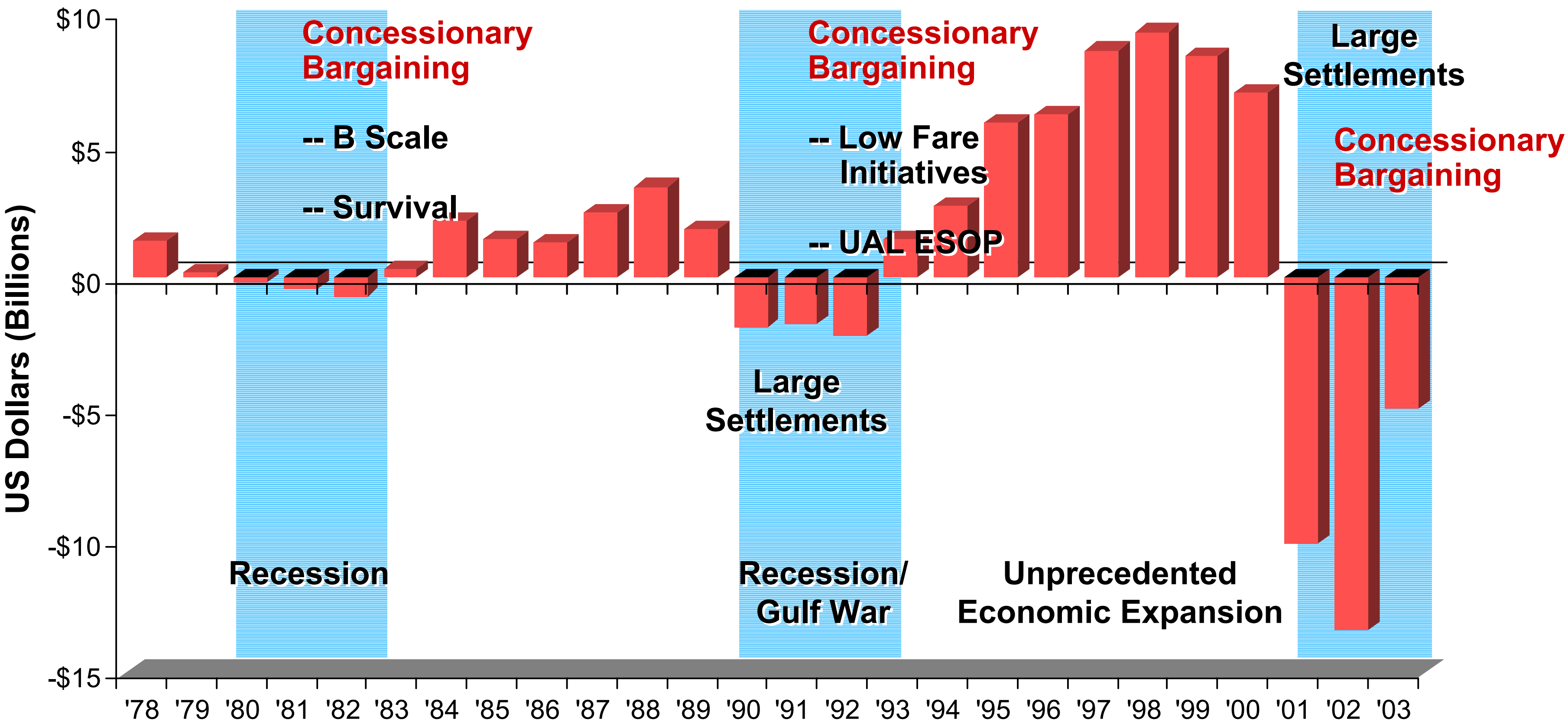
Premise cont.

- **American, Continental and United have much less at stake than Delta, Northwest and US Airways relative to the size of their networks**
  - The lack of any pricing power underscores the problems faced by both Delta and US Airways as their core networks would seem to be most vulnerable to new U.S. growth
- **The "networks" of Southwest and AirTran are well positioned to withstand what promises to be a vicious battle for substantial revenue, but**
  - jetBlue seeing margin erosion
  - AirTran warning on third quarter results
  - Southwest warning on 2005 performance
  - ATA teetering on the edge
  - Frontier disappointing results
  - America West performing nicely but transcon revenue squeeze is on
  - Is Spirit taking aircraft too late in the cycle
  - If Spirit is late then what about Branson?

An Industry in Transition

In Search of Sustainable Earnings -- Even the Low Cost Carriers Are Warning

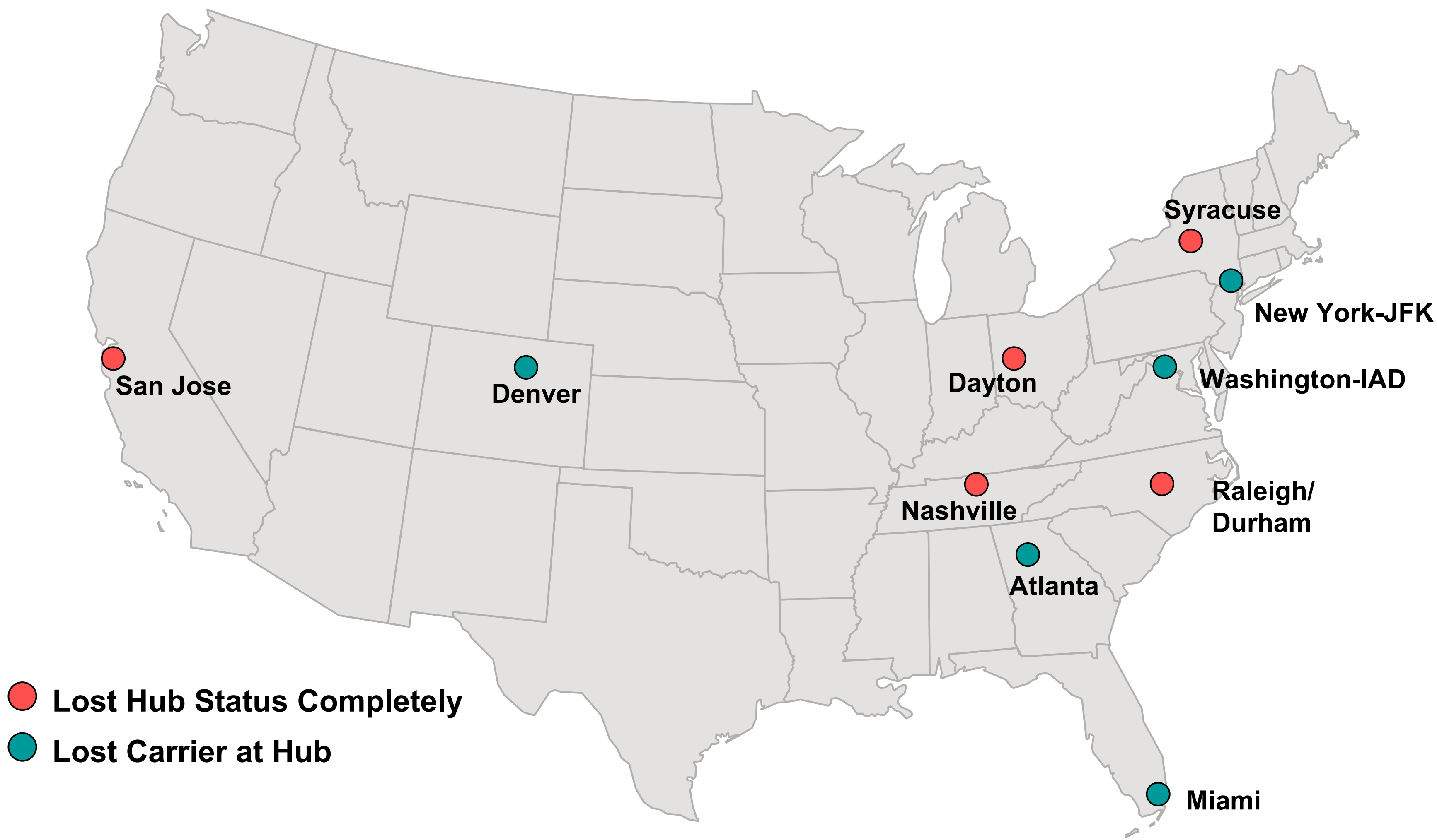
U.S. Industry Operating Income



Historical Impact on Local Market Traffic Following the Exit of a Hubbing Carrier

- **As in any good market, results return to the long-term trend line**
  - Each of the case studies suggest this to be true
    - In each the case of Nashville and Raleigh-Durham, the replacement of the hubbing carrier by Southwest resulted in a steeper long-term trajectory
      - But not all LCCs create demand the same way - Southwest truly creates new demand, whereas jetBlue, AirTran and Frontier create new demand, but also steal from incumbents
  - The question going forward is, should a carrier fail, will all of its hubs be replaced?
    - No not all hubs will be replaced, but sufficient capacity will be added so as to accommodate local demand
    - We see the following hubs as vulnerable: Cleveland (CO); Dallas/Ft. Worth (DL); Cincinnati (DL); Memphis (NW); Pittsburgh (US); and Salt Lake City (DL)
      - Each of these hubs has the 50-seat regional jet as its service backbone
    - We believe that a reduction in the number of connecting hubs will prove healthy for the industry as significant pricing pressure is created at each
    - Hasn't the consolidation process actually begun within each of the respective U.S. domestic alliances?

Not all U.S. Hubs Survived --
But the Carrier Exiting Was Hardly Noticed



Low Cost Carriers in the U.S. Domestic Market

- **LCCs have captured 10 full points of U.S. domestic market share since CY 2000**
  - We expect LCC growth to slow due to:
    - Increasing competitive pressures from incumbent carriers
    - Largest U.S. city pairs now saturated with capacity of all flavors
    - Case in point: Frontier's decision to abandon 75% of the non-hub routes started at LAX where the carrier announced it wanted to build a focus city
  - We expect to see some consolidation within the LCC segment of the Industry
    - Financial trouble most prevalent at American Trans Air
      - Midway a valuable asset in the eyes of other LCCs
    - Given the announced delivery of aircraft within the LCC sector over the next 3-4 years, we do not see a commensurate number of market opportunities
      - Except in the event of a liquidation of an existing carrier

- **Going forward, markets targeted for growth by the LCCs will look very different than those entered during 2001-2004**
  - Markets will be smaller
    - Historically, growth has occurred in city pairs that have a large hub airport on at least one end of the itinerary
    - With the market at or near capacity saturation in the largest U.S. city pairs, LCCs will be forced to look at medium and small hub airports to base growth
      - Reason why jetBlue has looked to a shell size smaller than the A320
      - We believe this decision will be among the most watched once jetBlue begins to take delivery in 2005
    - Currently only 226 city pairs with at least 100 passengers per day traveling each way have no LCC service
      - Of those markets, 132 are faced with significant competitive issues
  - Stimulation rates will be less
    - While there will be some exceptions, historic stimulation rates will not be replicated
      - Fares are down significantly in markets of all sizes, yet the commensurate increase in traffic has not been demonstrated
        - » This is particularly true in short haul markets

The Next Phase of LCC Growth Will Require a Different Mindset About Market Size -- But Will Their Model Really Work?

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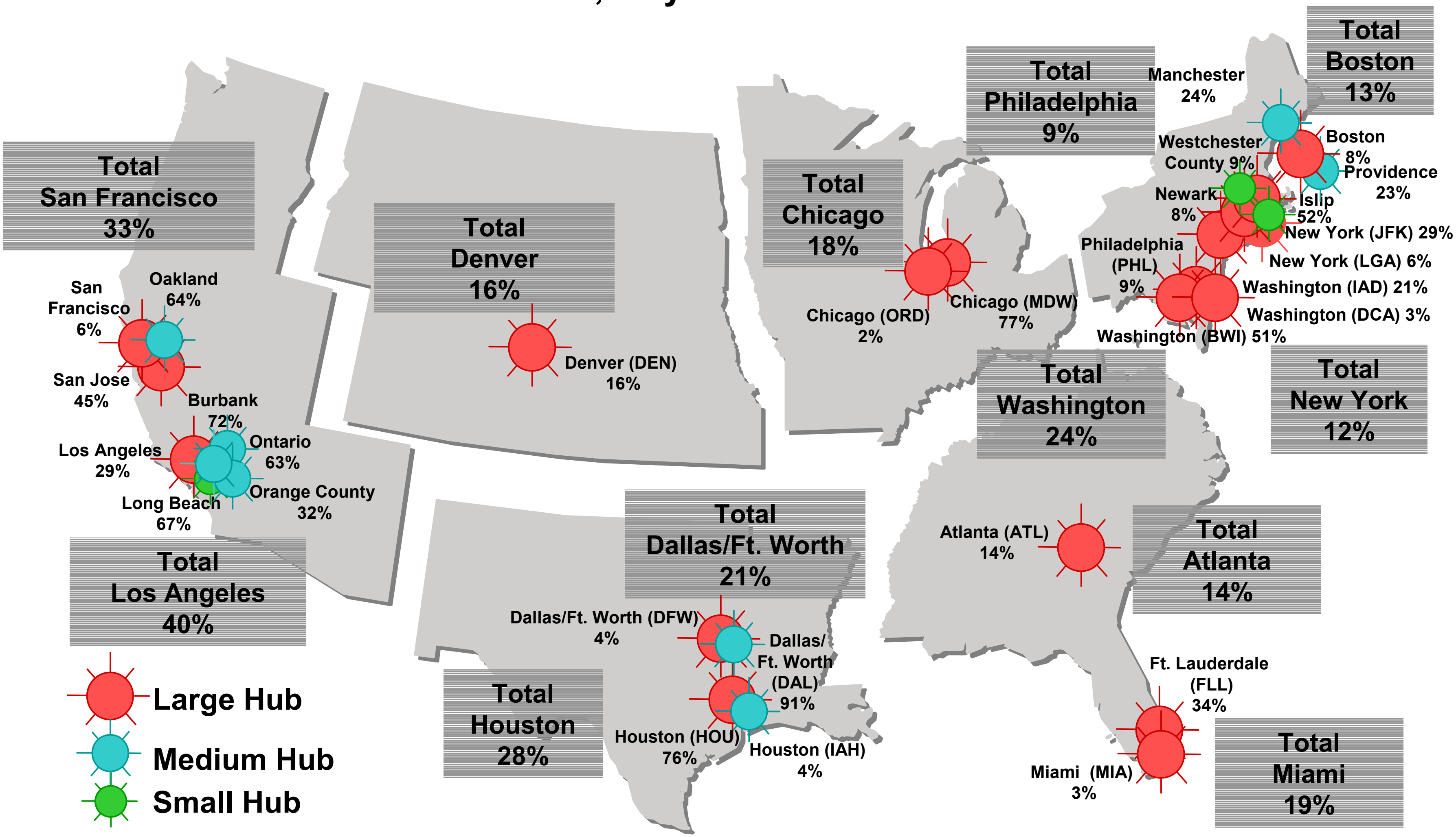
LCC Markets Entered

	Total City Pairs	Large Hub Airports to/from				Medium Hub Airports to/from			Small Hub Airports to/from	
		Large Hub	Medium Hub	Small Hub	Non-Hub	Medium Hub	Small Hub	Non-Hub	Small Hub	Non-Hub
1994	3	3	--	--	--	--	--	--	--	--
1995	54	8	30	3	--	12	1	--	--	--
1996	44	12	23	4	--	4	1	--	--	--
1997	56	15	26	9	--	1	4	--	1	--
1998	51	19	20	9	--	1	2	--	--	--
1999	57	20	26	5	--	6	--	--	--	--
2000	55	20	31	4	--	--	--	--	--	--
2001	53	24	21	6	--	2	--	--	--	--
2002	24	10	10	4	--	--	--	--	--	--
2003	36	15	10	7	3	--	--	1	--	--
2004YTD	70	20	19	19	10	--	--	--	--	2
Total	**503**	**166**	**216**	**70**	**13**	**26**	**8**	**1**	**1**	**2**
% of Total		**33.0%**	**42.9%**	**13.9%**	**2.6%**	**5.2%**	**1.6%**	**0.2%**	**0.2%**	**0.4%**
Cumulative % of Total			**75.9%**	**89.9%**	**92.4%**	**97.6%**	**99.2%**	**99.4%**	**99.6%**	**100%**

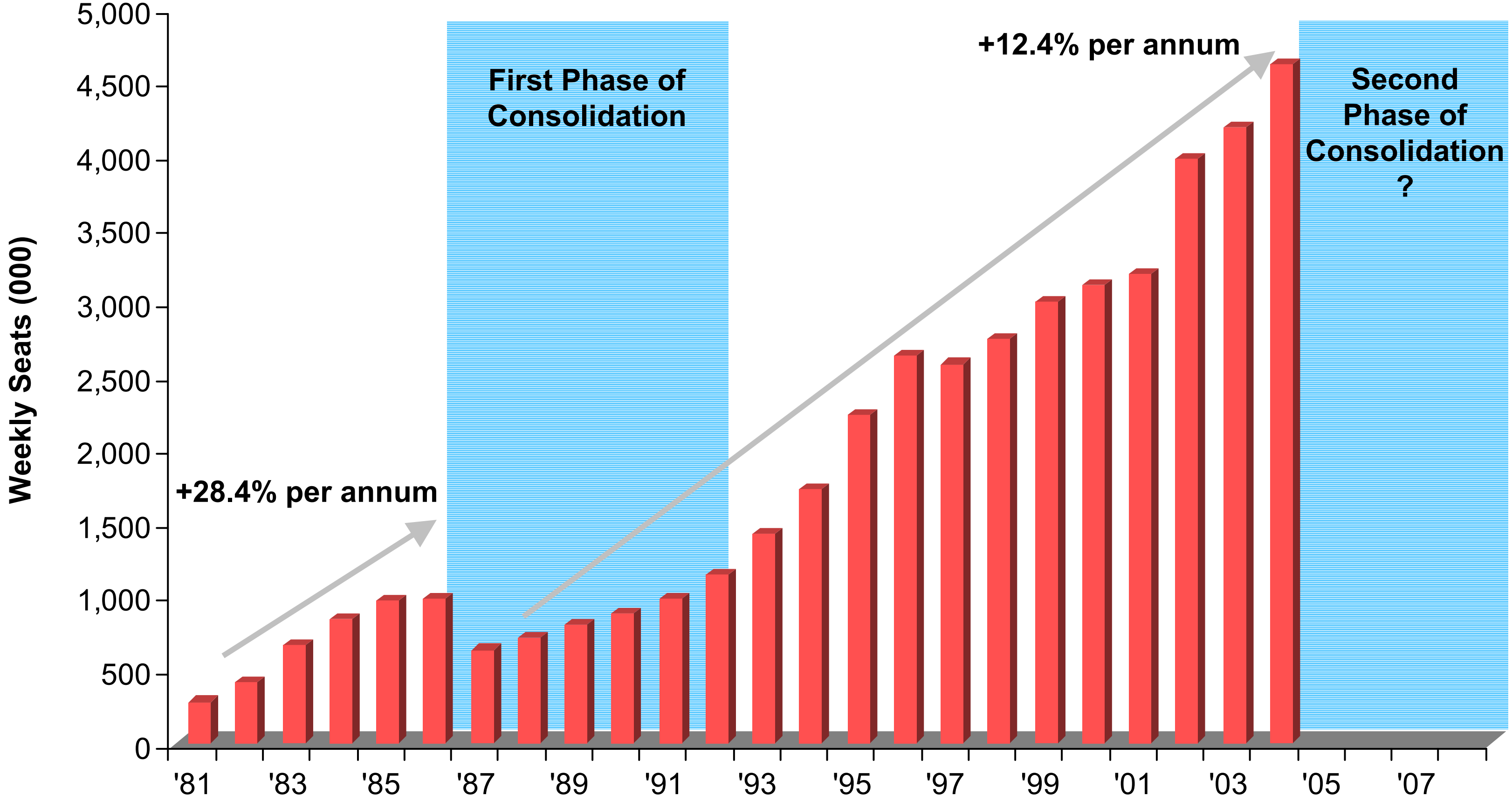
Now Fully Exploited, Can Even the Largest U.S. Markets Support All of the Capacity In Place Today?

LCC Share of Domestic Air Service, July 2004



It Is Time for Another Round of Consolidation -- And the Government Should Look the Other Way

U.S. Low Fare Carriers



Industry Revenue Declines Are Not Limited to Markets With Current LCC Presence -- More than Adequate Competition Exists in the Smallest U.S. Markets -- Government Take Note

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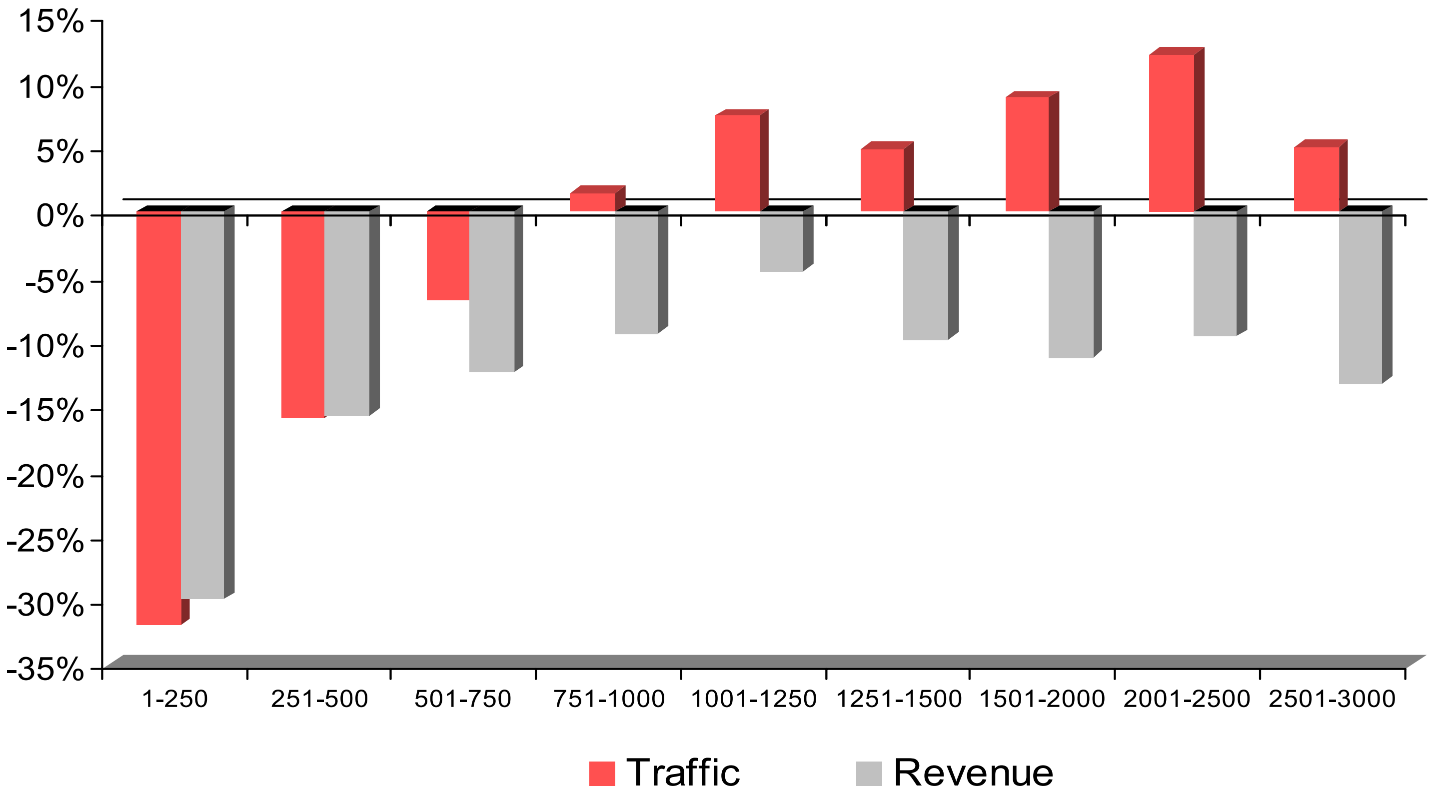
A Look at Revenue 2003 v. 2000

	Large Hub Airports to/from			Medium Hub Airports to/from		Small Hub Airports to/from
	Large Hub	Medium Hub	Small Hub	Medium Hub	Small Hub	Small Hub
Traffic	-11.1%	-5.5%	-0.2%	-5.5%	-3.4%	-5.0%
Avg. Fare	-15.6%	-10.1%	-14.6%	-5.8%	-12.2%	-15.0%
Revenue	-25.0%	-15.0%	-14.8%	-11.0%	-15.2%	-19.2%

Revenue Degradation in Markets Across the Mileage Spectrum Appears to be Systemic

2003 v. 2000



While the U.S. Domestic Market Remains Sick - Financial Results Are Being Cross Subsidized by Healthy International Markets

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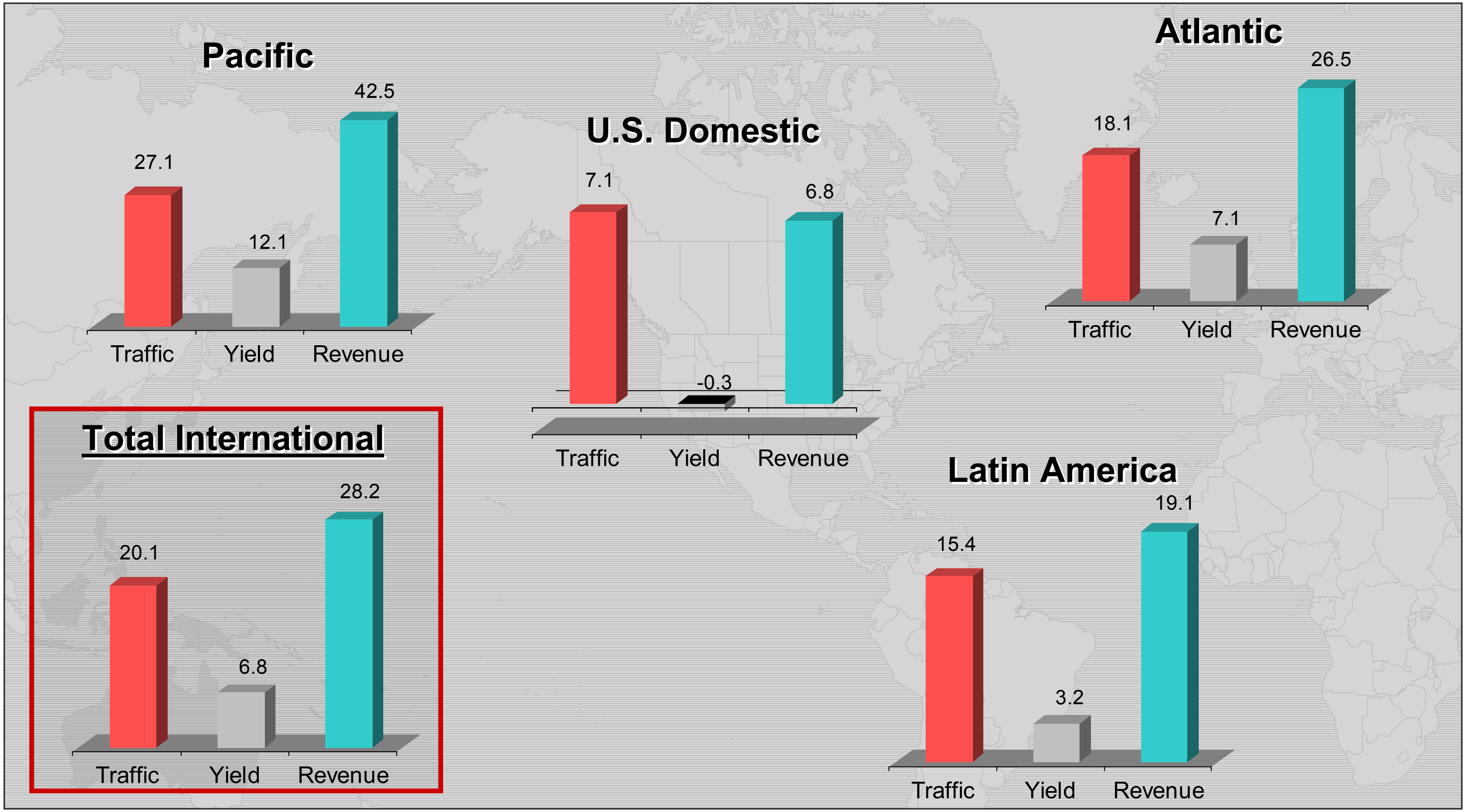
6 Months Ended June 2004 v. 6 Months Ended June 2003



The Myth of Market Stimulation

The Myth of Stimulation --
Total Market Traffic Stimulation Is Less Than 12%, So What Is All of the Hoopla Over?

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1994 - 2002

	New City Pairs Introduced	Actual Passenger* Stimulation		Redirected Incumbent Traffic
		Ind. Carriers	Total Market	
Southwest	188	+11.2M	+11.1M	(.1M)
AirTran	82	+7.0M	+4.8M	(2.2M)
jetBlue	20	+3.9M	+1.8M	(2.1M)
Spirit	35	+3.6M	+3.5M	(.1M)
ATA	41	+2.3M	+1.3M	(1.0M)
Frontier	31	+1.8M	+1.5M	(.3M)
		+29.8M	**+24.0M or +11.7%**	(5.8M)

*Measured 12 months prior to service inauguration by LCC, versus 12 months after.

But the Airplanes Are Full and the Bank Accounts Are Empty

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Since 1990, Southwest Has Entered 30 New Markets

- **12 months after WN's service inauguration, yield**
  - Decreased an average of 13.5% from these markets to all domestic destinations (indirect competition), and
  - 18.6% to all Southwest Airlines markets (direct competition)
- **In no case did revenue growth in any of these 30 markets exceed traffic growth – traffic stimulation only**
- **Traffic has been stimulated by lower prices**
- **The LCCs have an aggressive growth schedule ahead – a fact that will increase the proliferation of low fares across each legacy carrier's network**

Note: Yield change does not include Philadelphia. Traffic data is not yet available since Southwest entered Philadelphia only recently in May 2004.

Today, Pricing Is Influenced by the LCCs in 88% of the U.S. Domestic Market

<u>Southwest Serves: 60 U.S. Airports</u>

Within 100 Miles

Indirect Competition: 114 U.S. Airports

- **% of Airports Impacted: 42.1%**
- **% of O&D Traffic Affected: 78.0%**

Within 150 Miles

- **Indirect Competition: 198 U.S. Airports**
- **% of Airports Impacted: 62.5%**
- **% of O&D Traffic Affected: 86.3%**

Within 200 Miles

- **Indirect Competition: 235 U.S. Airports**
- **% of Airports Impacted: 71.4%**
- **% of O&D Traffic Affected: 88.0%**

But It's Not Just Southwest Anymore

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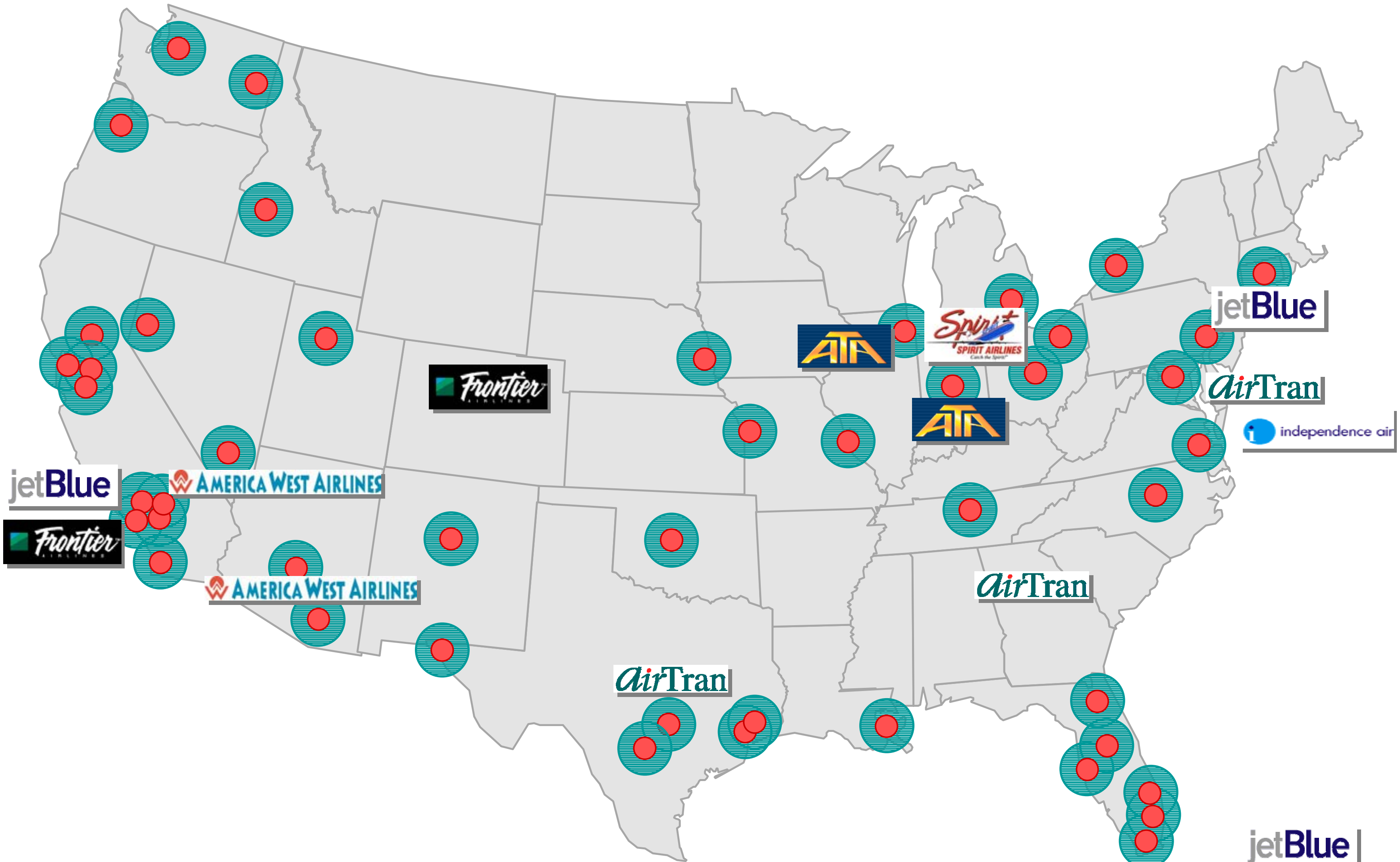
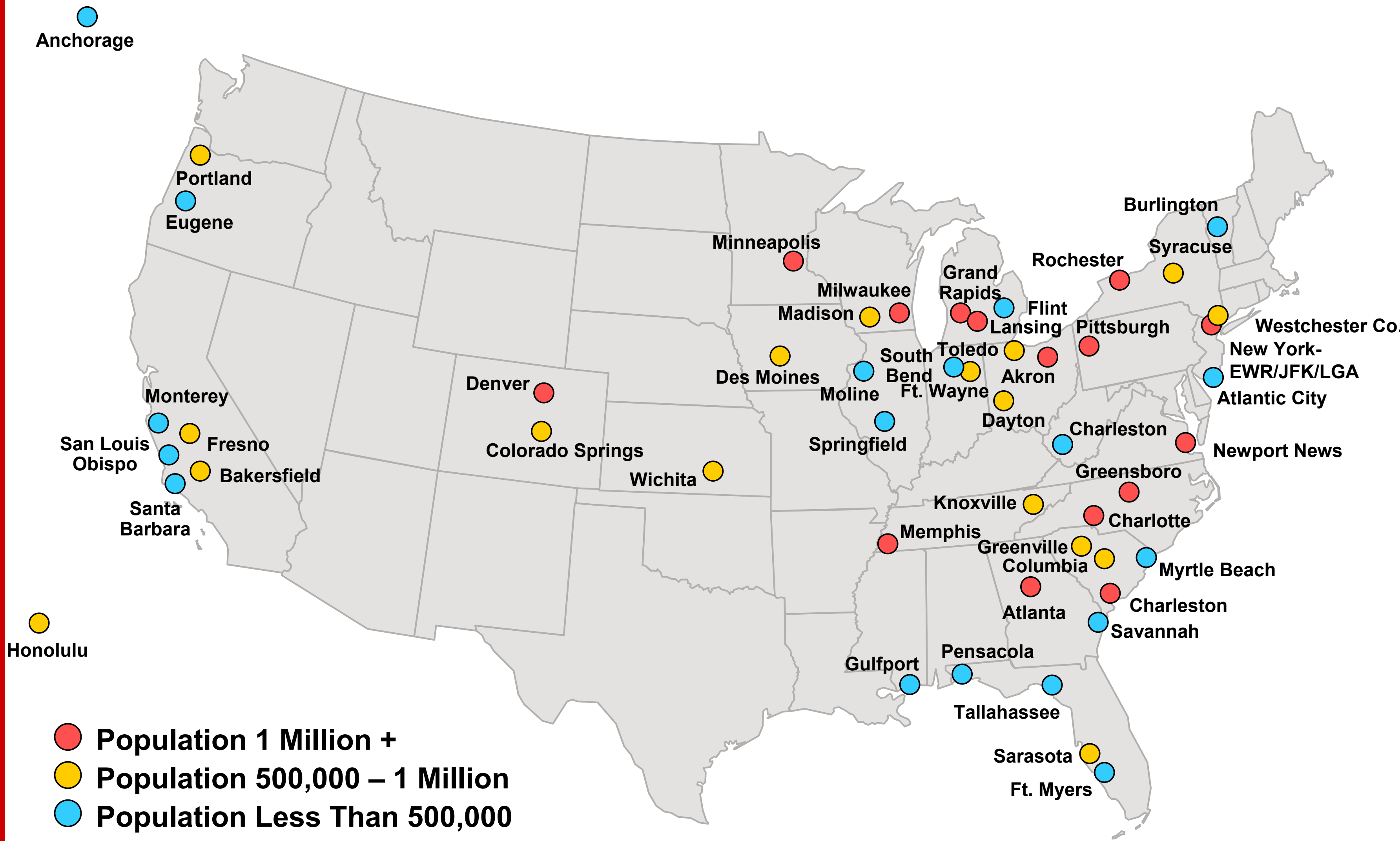
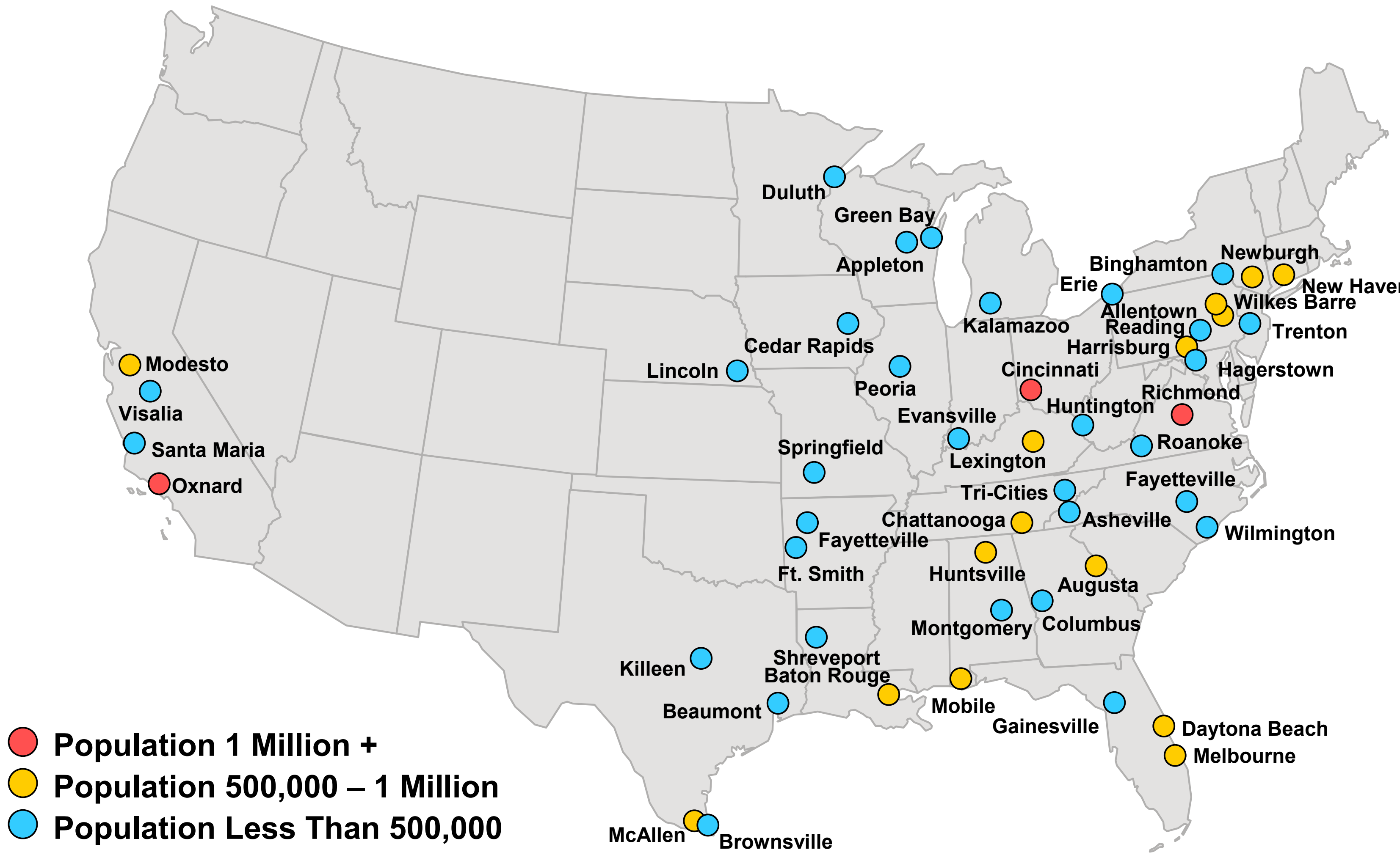


Fifty Largest Metro Areas Without Southwest Service -- Even for Southwest, Growth Will be Challenging



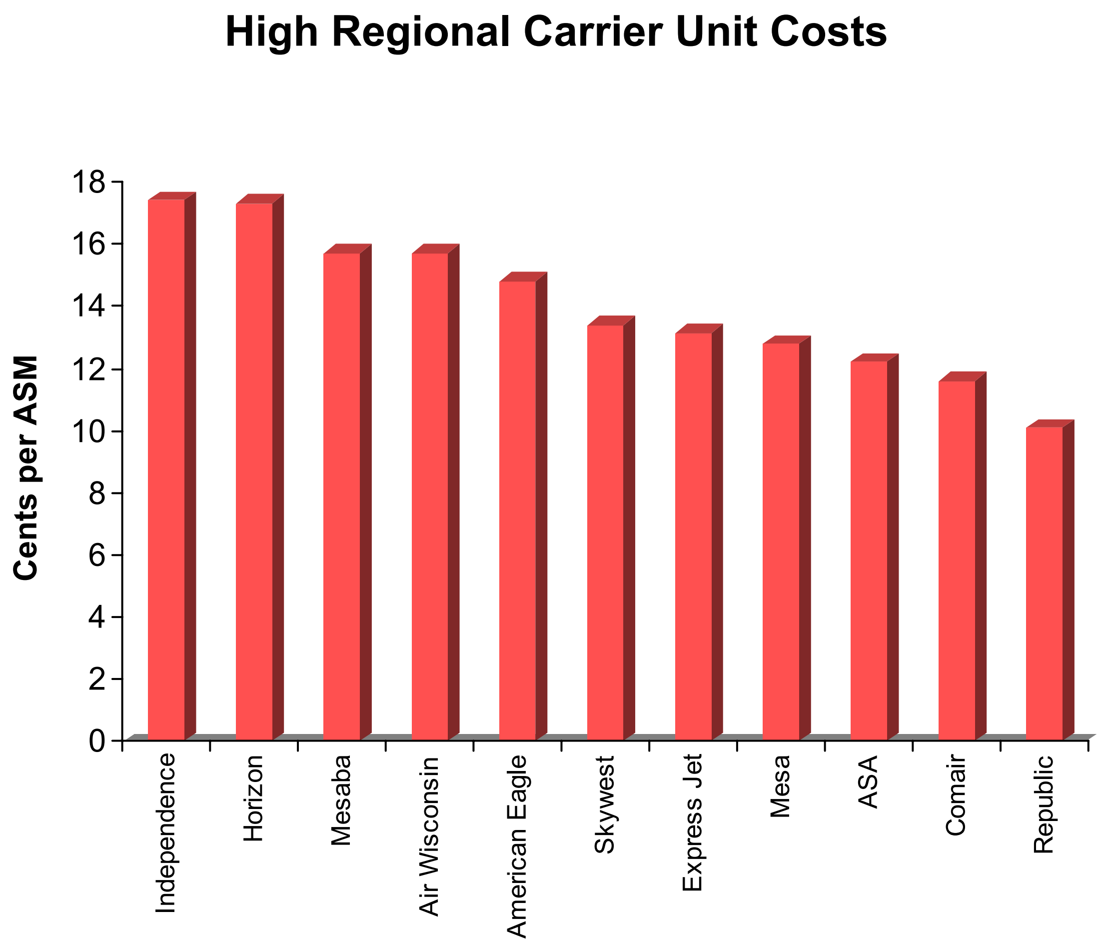
Potential Growth Opportunities for the LCCs Other Than Southwest Will Further Pierce the Revenue Veil of Delta and US Airways



The Regional Jet in the U.S. Domestic Market:
Past, Present and Future Trends

- **Growth of Regional Jet (70 seats and less) will slow significantly**
  - The 50-seat “bubble” will break
    - Currently no U.S. deliveries scheduled beyond 2005
    - Economics will prove unattractive over medium term and unsustainable over long term – High fuel prices, labor demands and stressed infrastructure
    - The transformation of Atlantic Coast into Independence Air will be critical and watched by the regional industry as a way to lower costs over the long term
  - 70-seat aircraft will prove to have a place, but specialized
    - Currently only US Airways looking to use the aircraft in a significant way
    - Again, in a low fare environment we question the economics given the saturation of low cost carriers and too many hubs
  - The common configuration will settle in the 90-120 seat range
    - The issue of mainline pilot scope will again rear its head
      - We believe that the mainline pilots will negotiate rates and rules that permit the mainline to do the flying, thus hurting the regional industry as we know it

As We Near the End of Phase 1 of Regional Carrier Growth, the Next Growth Phase is Clear as Mud



1Q 2004 CASM

<u>Definition</u>:

CASM: Cost Per Available Seat Mile.

Note: Calculation above represents total operating expenses divided by available seat miles flown.

Current Regional Carrier Capacity Is Not Cheap Capacity - Will It Prove To Be The Answer to Total Network Costs?

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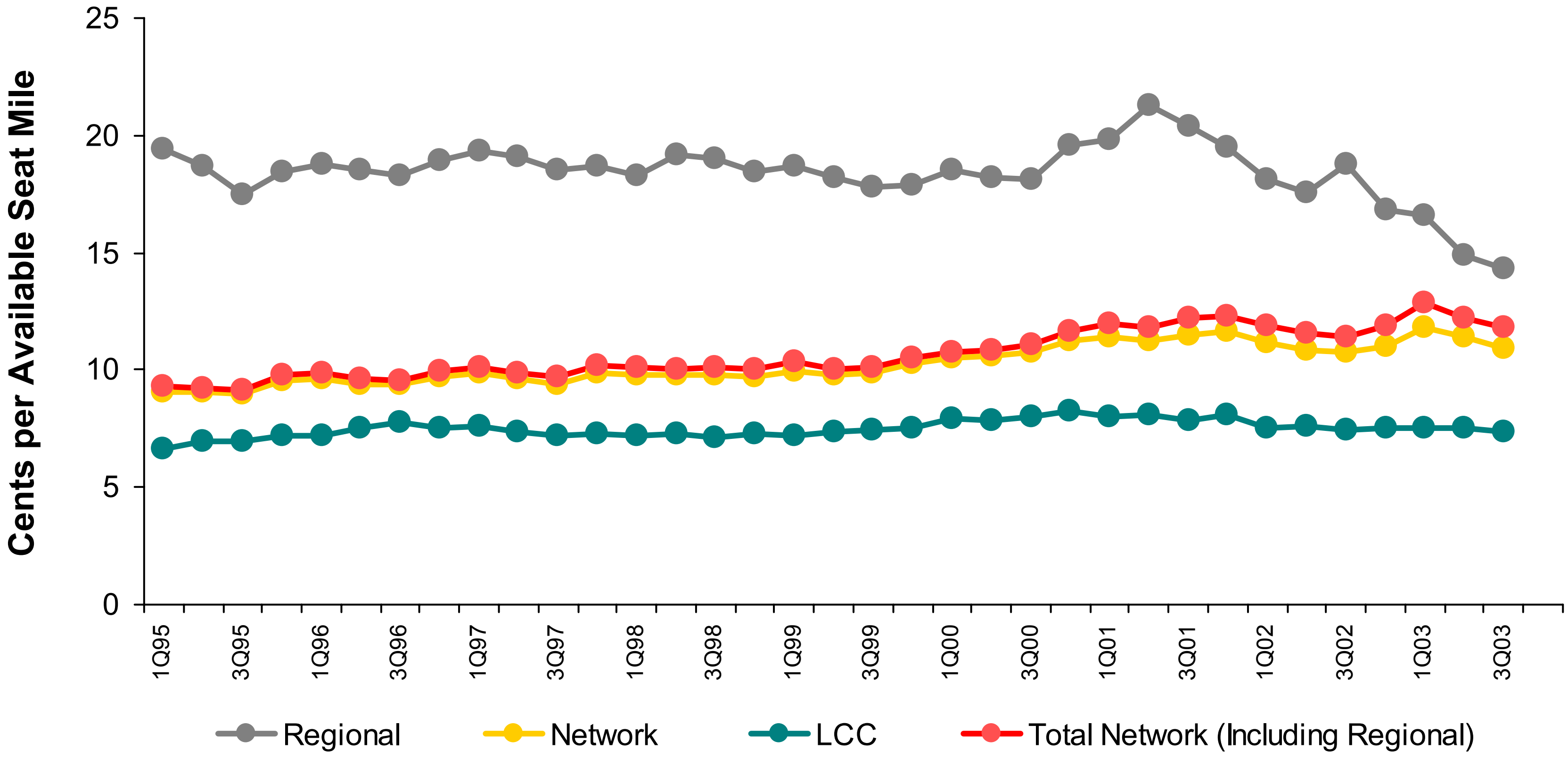
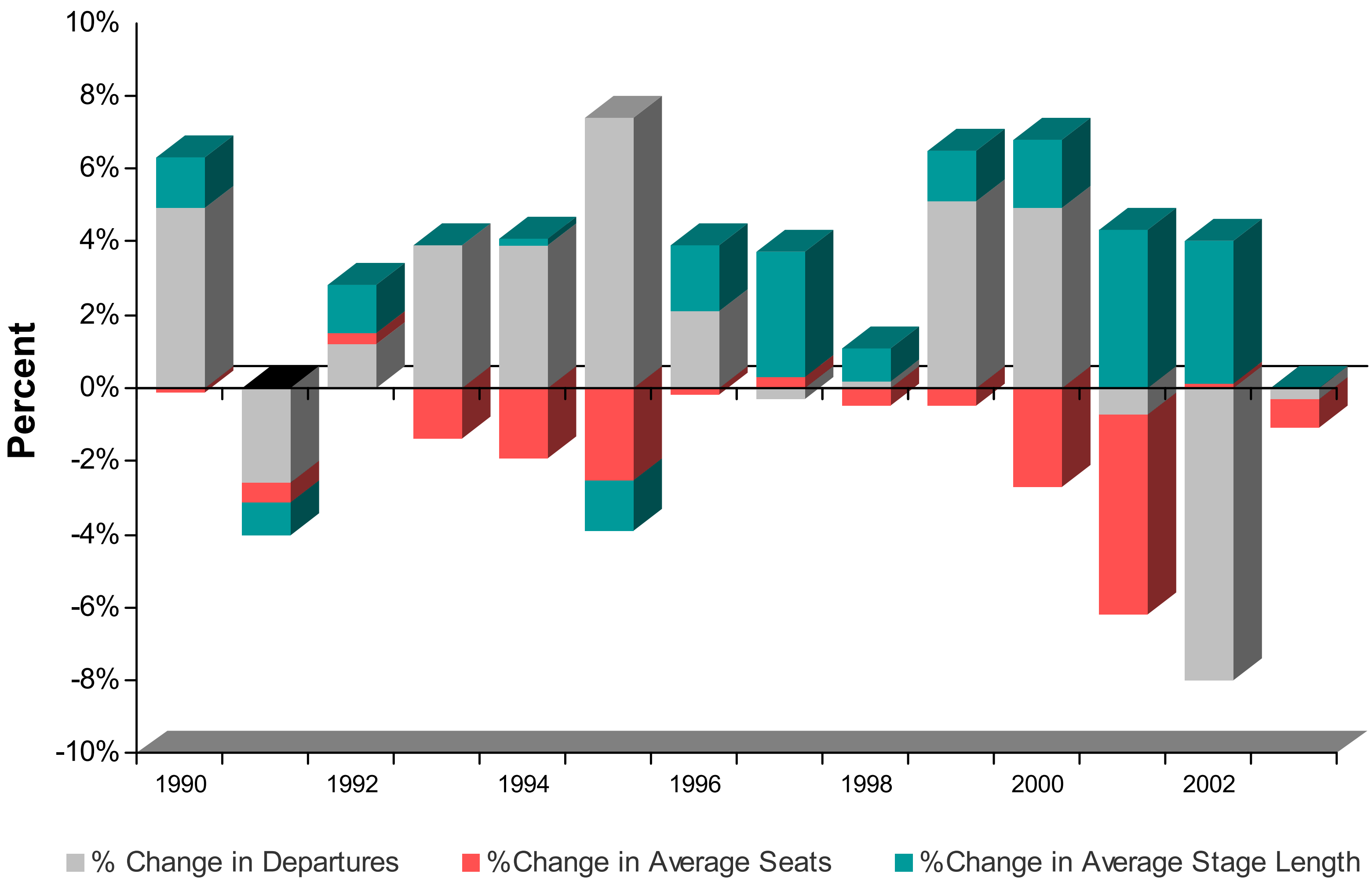
Despite the Substantial Reductions in Regional Carrier Unit Costs, They Remain 31% Higher than Mainline Unit Costs



Is It Time to Begin Rethinking the High Frequency/Small Aircraft Approach In This Pricing Environment?

Sources of Capacity Change in the U.S. Domestic Market -- We See the Platforms Getting Bigger



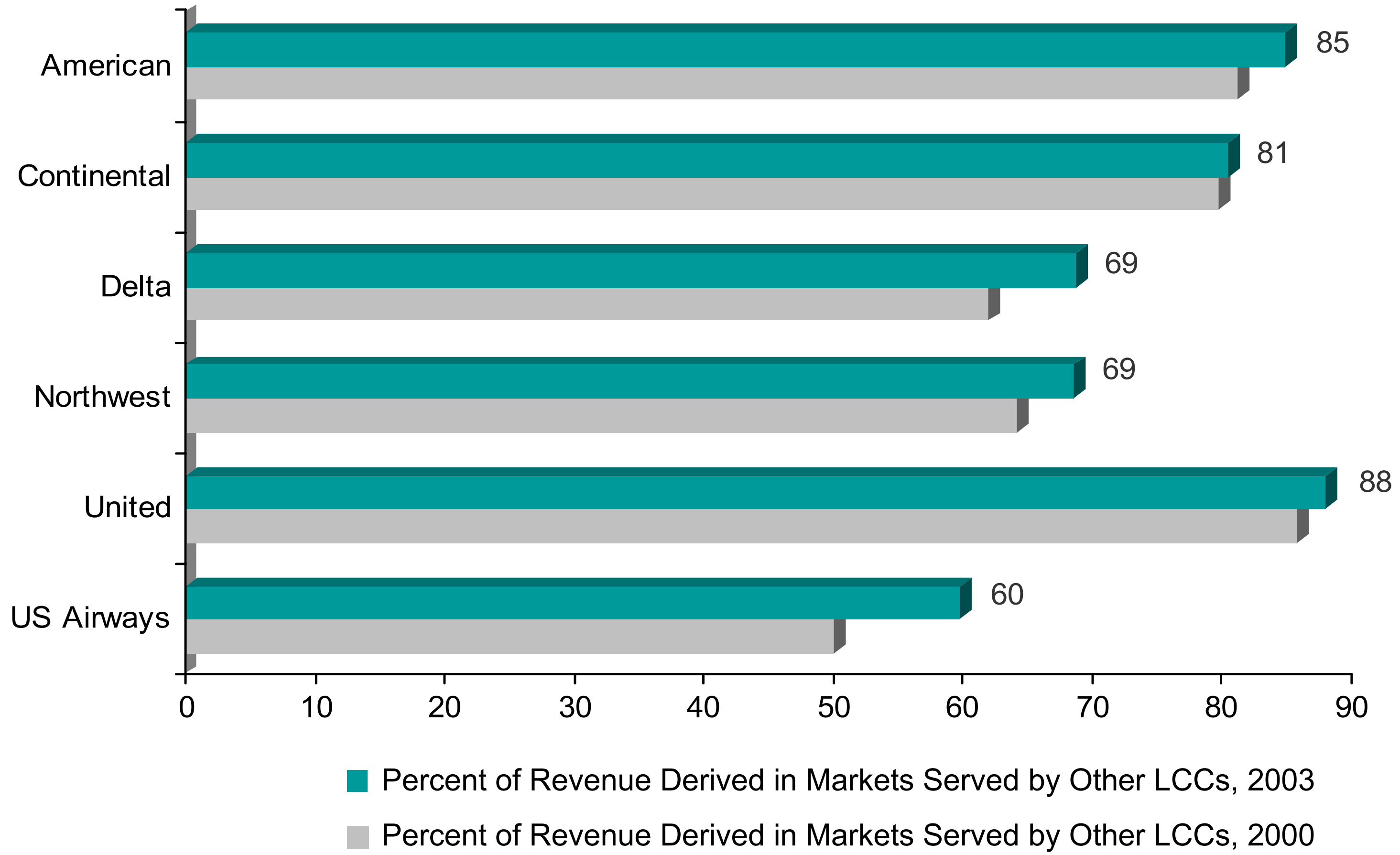
Route Structure Development

A Tale of Two Sectors

- The Network Carriers
  - Seats deployed are 6% less today than they were in July of 2000
  - The two most troubled carriers in the group have shed significant capacity
  - Continental has navigated a difficult marketplace with measured capacity growth
  - With few exceptions, the growth has occurred within the network through each of the network carriers' regional affiliates
    - As mentioned earlier, we expect this trend to slow significantly and to see refocus on measured growth using aircraft larger than 70 seats
- The Low Cost Carriers
  - Growth has been well documented
  - The LCCs have experimented with regional jet aircraft and have determined that they are not economic within their respective systems
  - Concern is that there are not sufficient "right sized" market opportunities for all of the narrowbody aircraft scheduled to be delivered to Southwest, jetBlue, AirTran and Spirit

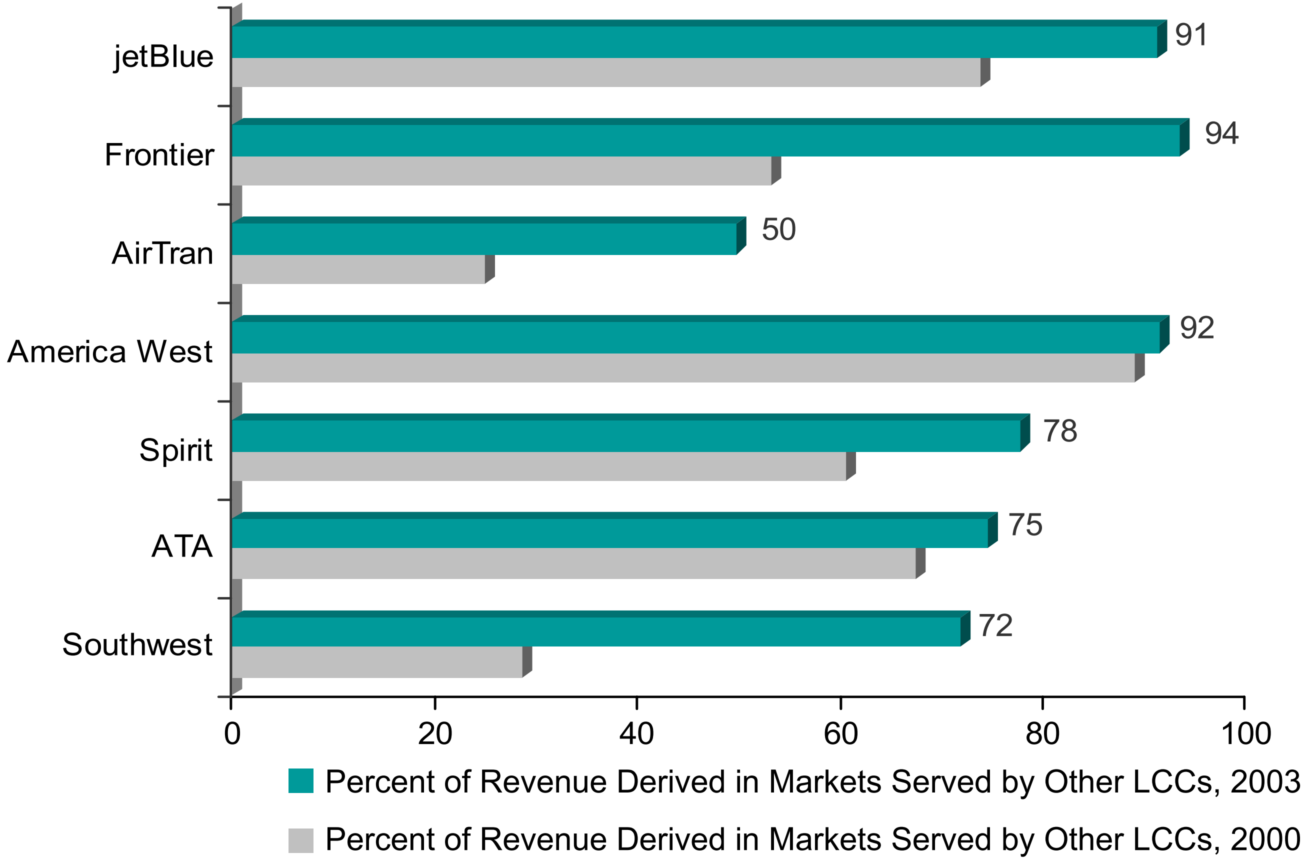
Delta and US Airways' Networks Have the Most to Lose From Planned LCC Growth

Percent of Revenue Exposed to Direct LCC Competition



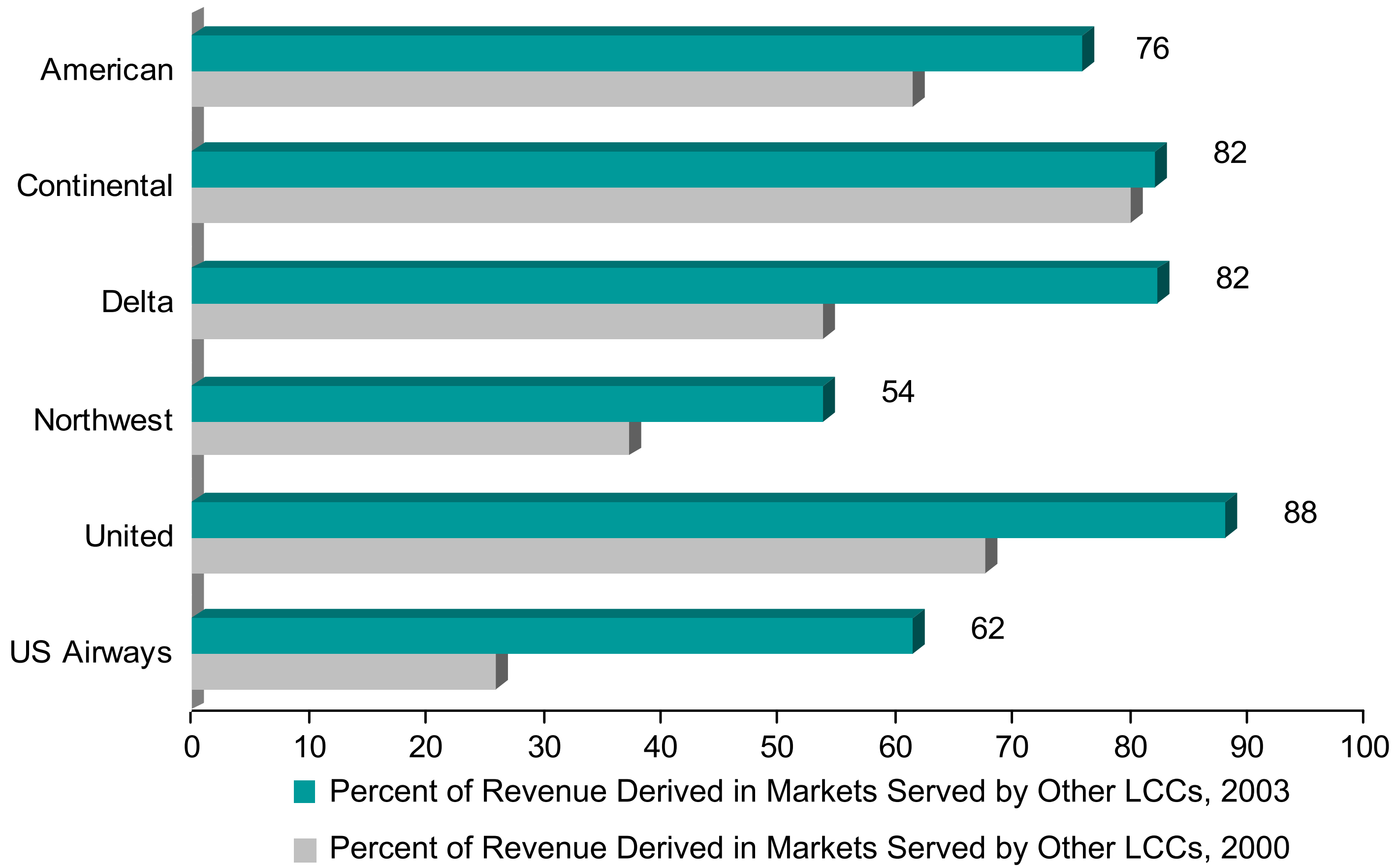
LCCs Have High Levels of Direct Competition With One Another -- They Will Be Looking for New Areas to Exploit. But Will They Find Profitable Markets?

Percent of Revenue Earned in Direct Competition With at Least One Other LCC



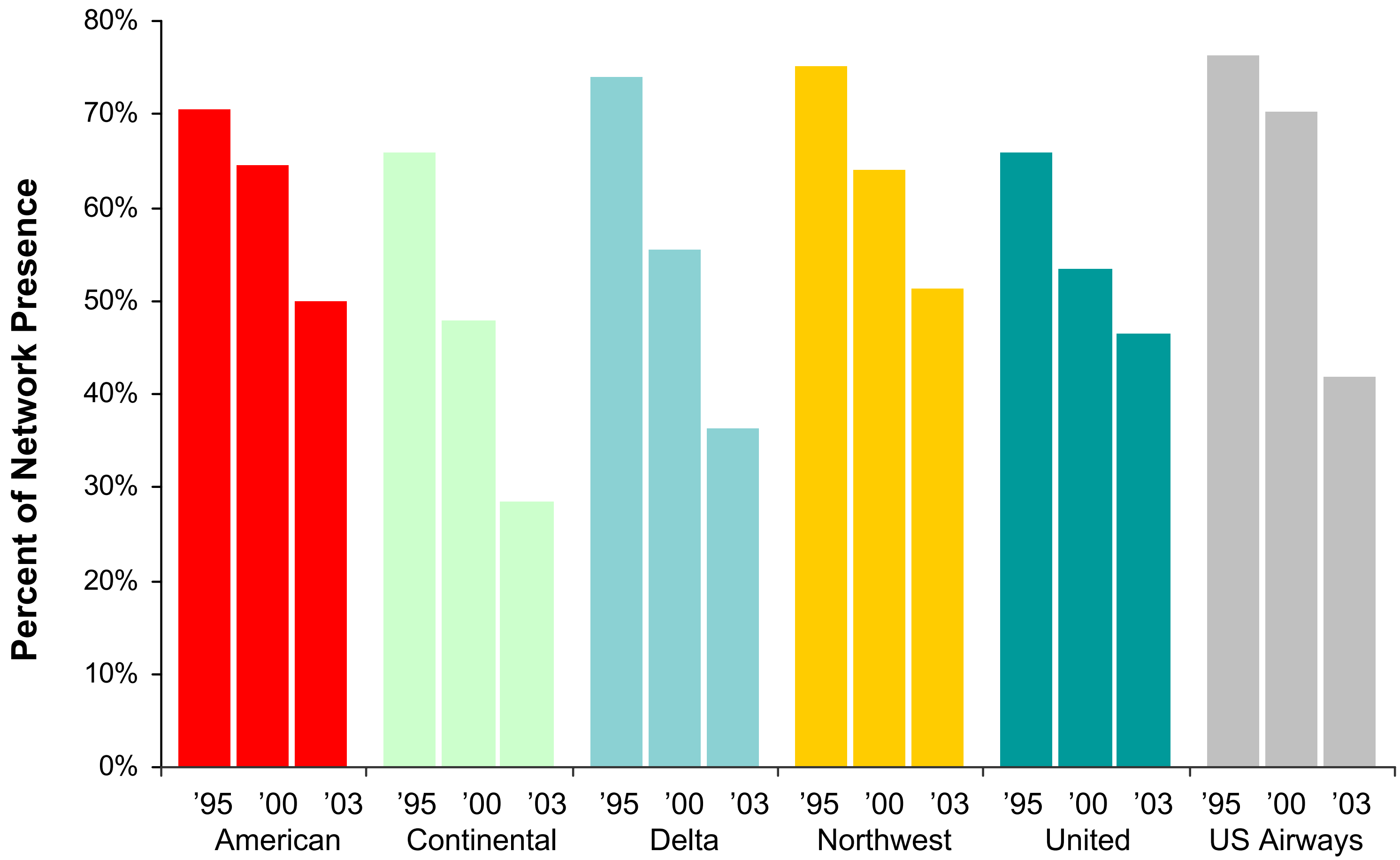
As LCCs Expand, Regional Carriers Are Exposed to Strict Pricing Pressure as Never Before -- Let's Also Not Forget the Price of Fuel

Percent of Revenue Earned in Direct Competition With at Least One Other LCC



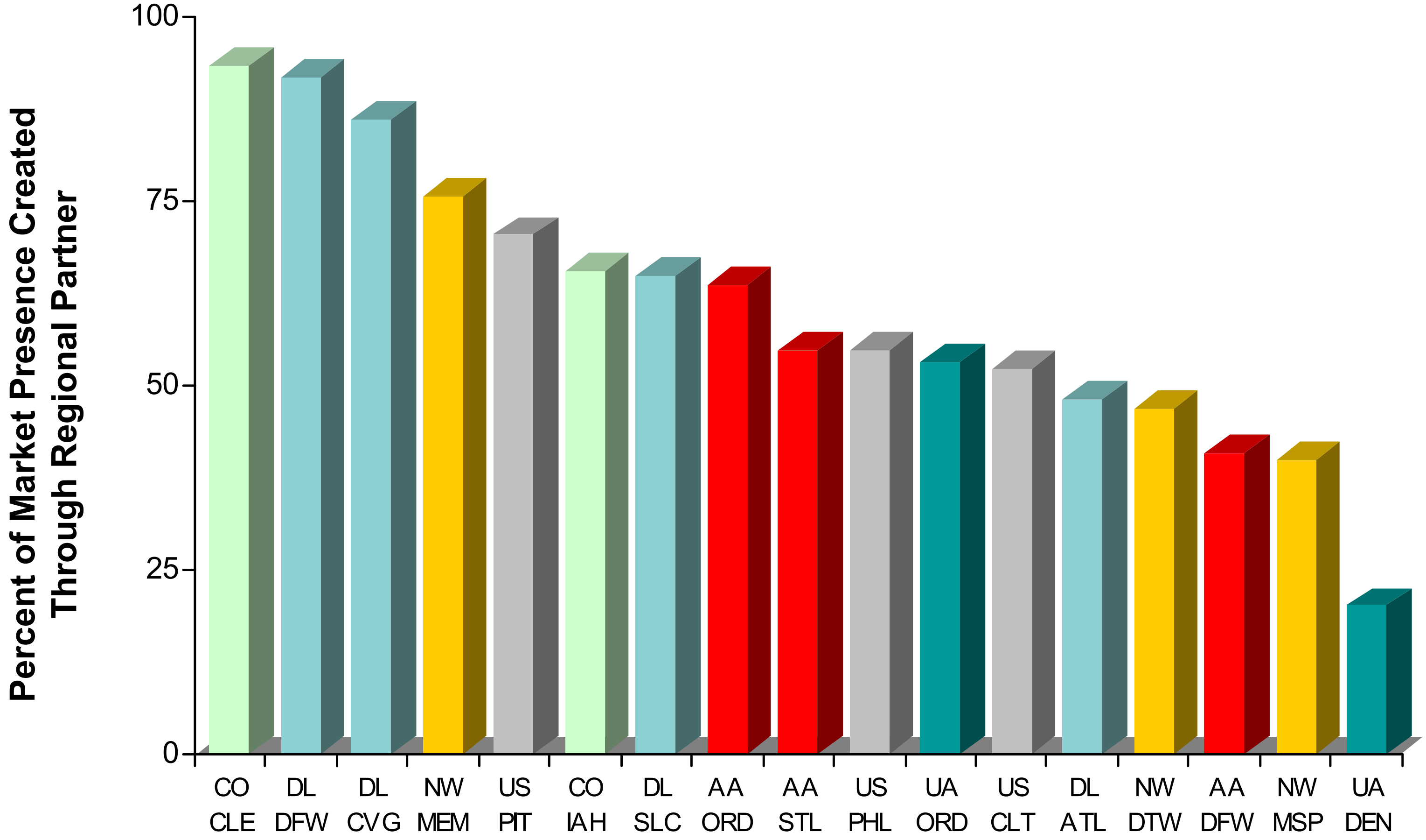
Have the Network Carriers Become Too Reliant on the Regional Jet?

Mainline to Mainline Connectivity



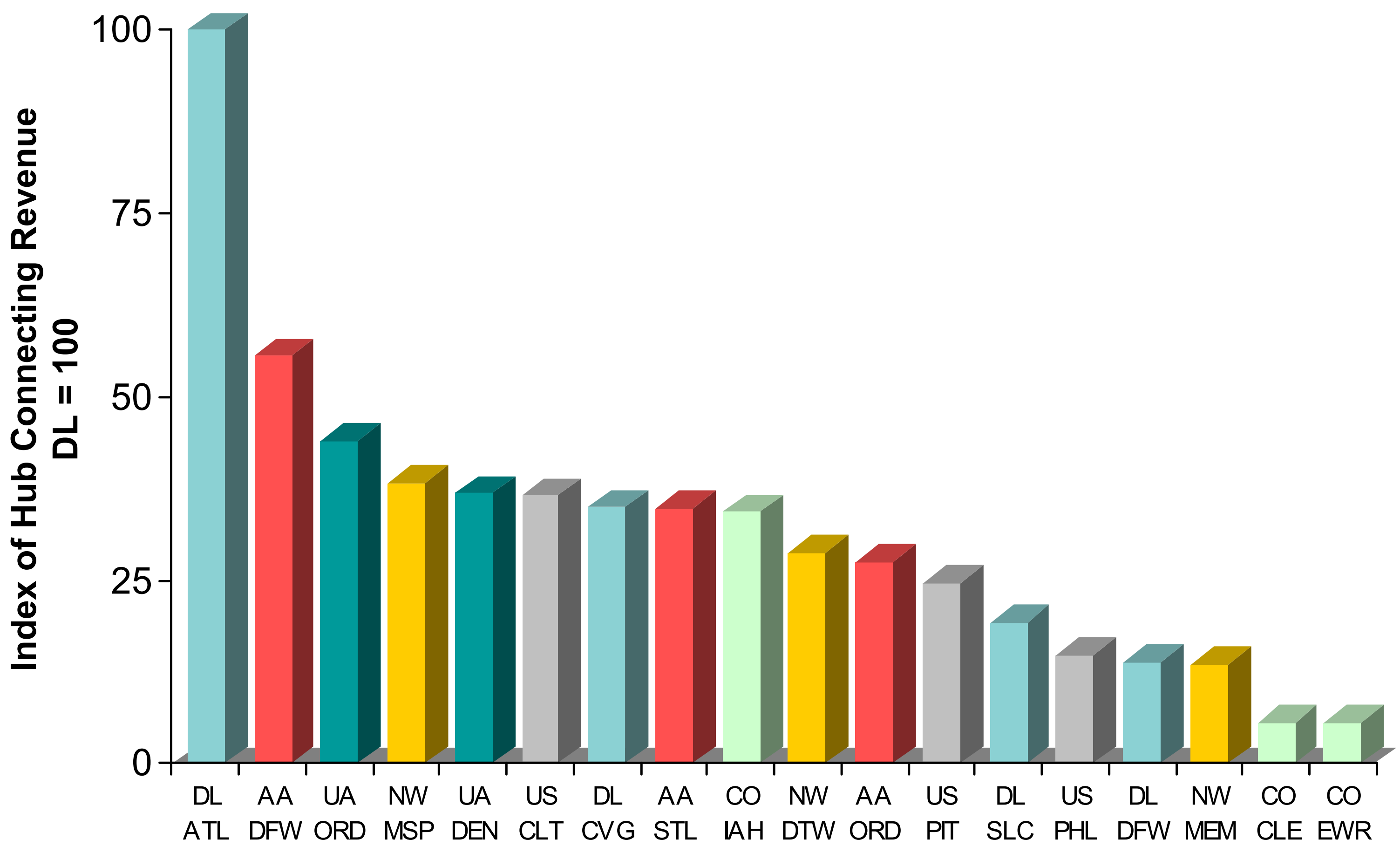
Source: Official Airline Guide; Eclat Air Service Model

Are All of the Mid-Continent Hubs, Reliant on Regional Jet Capacity, Necessary?



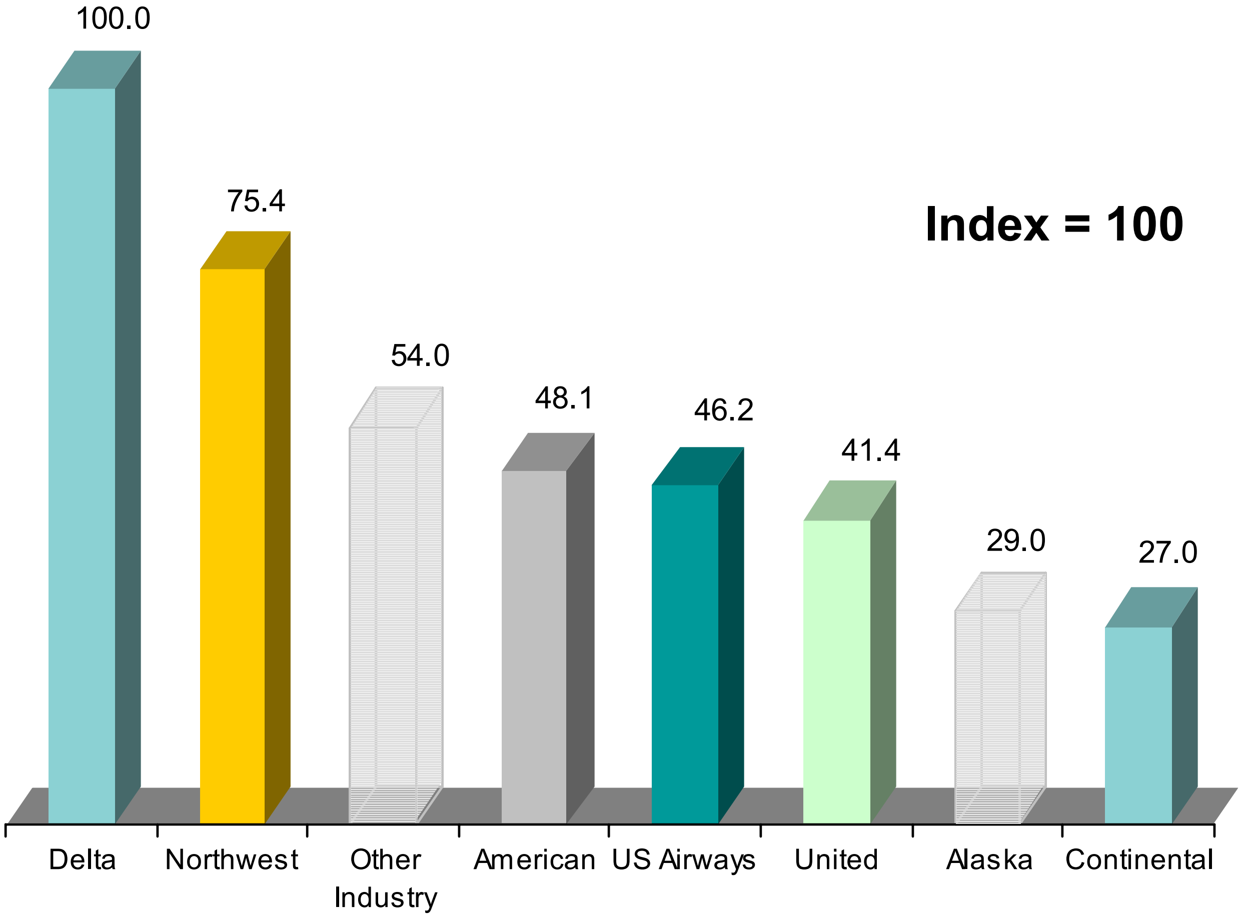
Excludes IAD, JFK, EWR, LAX, SFO, MIA (International Gateways)

If Connecting Revenue Is to Be the Target of Planned LCC Growth, the Power of the Hub Will Be Tested



Excludes IAD, JFK, EWR, LAX, SFO, MIA (International Gateways)

Network Carrier Vulnerability to Growth by the "Big 3 LCCs"

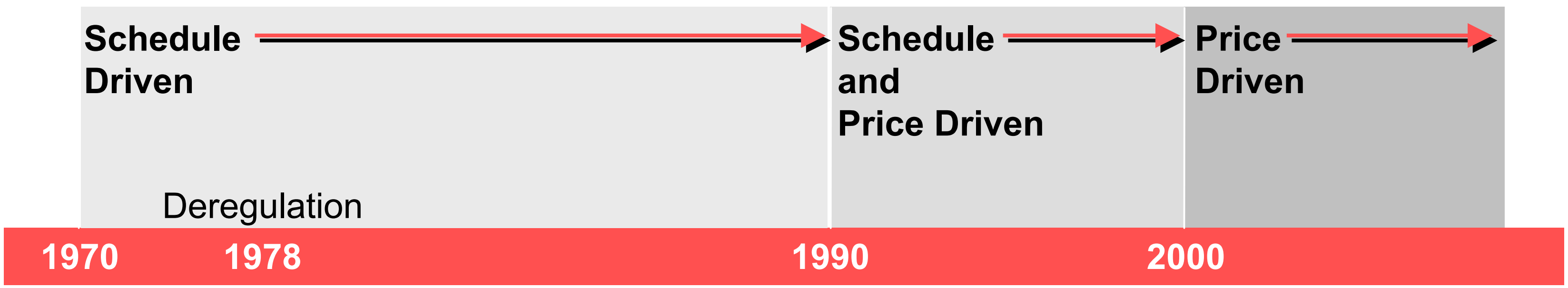


Other Industry Comprised of: America West, Spirit, AirTran, Southwest, Midwest, ATA, Frontier, Sun Country and jetBlue.
(Listed in Order of Vulnerability)

How Industry Changes Have Impacted Airports

Price Differentials Have Driven Changes in Airport Prospects

Primary Means of Competition



Development of hub and spoke system by legacy carriers (1975-1984)

Strong capacity growth (B-scale labor rates)

LCCs begin to make inroads, but strong economy buoys demand for business fares

Gap between business and leisure fares widens from traditional 2-3 times to 3-5 times

Implications for Airports

- **The battle over the catchment* area has intensified**
  - “City” airports have become “regional” airports
- **Previously**
  - Limited airport competition for passengers
    - Based on schedule issues (frequency and nonstop destinations)
    - No airport fare competition for passengers
- **Now**
  - Intense airport competition for passengers
  - “Diversion” and “recapture” battles

Is There an Equilibrium for Small/Medium Airports?

Small/Medium Airports

Large/LCC Airports

Balance Between

Passenger Convenience

Lower Fares

Slight Fare Premium

Higher Frequency

The Business Traveler Will be Critical to Finding the Balance

Some Conclusions About Capacity

- **Infrastructure expansions will be inadequate to keep up with the growth in demand**
- **Future "solutions" will involve:**
  - New uses of technology
  - Market-based (and political) methods of allocating capacity
- **To what extent will capacity constraints drive changes in aircraft size and scheduling?**

Concluding Thoughts

Dispelling the Myths:

Myth 1: The Low Cost Carriers create new traffic

— Some do/some don't

Myth 2: The Network Carriers will all die

— Some will/others will thrive

Myth 3: All of the current LCCs will thrive

— Southwest, AirTran and jetBlue should

Myth 4: The Regional Carriers are the Network Carriers' lifeline

— May prove to be the most troubled part of the Network Carriers' competitive makeup

— Certainly do not bring overall network costs down

Dispelling the Myths:

Myth 5: Labor costs are the Achilles Heel of the Network Carriers

- Has anybody paid attention to the labor cost trends among the LCC and regional sectors lately?
- Can we bring non-labor costs to a level that can produce profits when realized in addition to labor cost reductions?

Myth 6: Small airplanes are the future

- Maybe ACA Is Right
- And in Mesa's Case, "If I can't buy them, emulate them" --

  by considering big airplanes

Myth 7: The LCCs will be able to satisfy all of the growth plans in the U.S. market

- Our models show it to be very difficult
- jetBlue signaling opportunities elsewhere

Dispelling the Myths:

Myth 8: Traditional means of measuring levels of competition fit today's network business model

- Absolutely not. Continued attempts to measure competition on a city pair by city pair basis lost its meaning following the sunset of the Civil Aeronautics Board and the advent of the hub and spoke system. It is about network and alliance competition
- And rethink the whole cross border investment concept as well. This is a global industry not a U.S. domestic industry

Myth 9: Small U.S. markets continue to get price gouged

- That is not what the data says
- And with no LCC presence, it is the legacy carriers and the hub and spoke system that has allowed this previously disenfranchised group to participate in price reductions
- Yes, it is true there is indirect LCC competition, but when assessing the competitive intensity of the U.S. marketplace, one should look at just how many options per day consumers have to fly from small market to any market

Myth 10: This revenue problem will pass

- At 3+ years and counting, let's just admit it is structural and therefore has permanence to it

Eclat Consulting

Eclat Consulting
An Overview

Eclat specializes in the economics of commercial aviation. Over the past 20 years, Eclat principals have been involved in some capacity in every major airline restructuring in the United States. As a result of that experience, Eclat has also served in important advisory roles with other North American, European and Asian carriers.

Our clients rely on our expertise in identifying market trends and structural shifts within the commercial aviation industry. Eclat's knowledge and understanding of the interaction of the human and capital aspects of the airline business is unrivaled by any firm.

We help position clients in a competitive marketplace by providing: economic, labor, financial and operational analyses; infrastructure assessments; asset valuations; and forecasts. These services help guide our aviation clients in developing new markets or establishing policy.

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