Domestic Traffic and Fares at Top 200 US Airports 1990-2008

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October 29, 2009

Outline

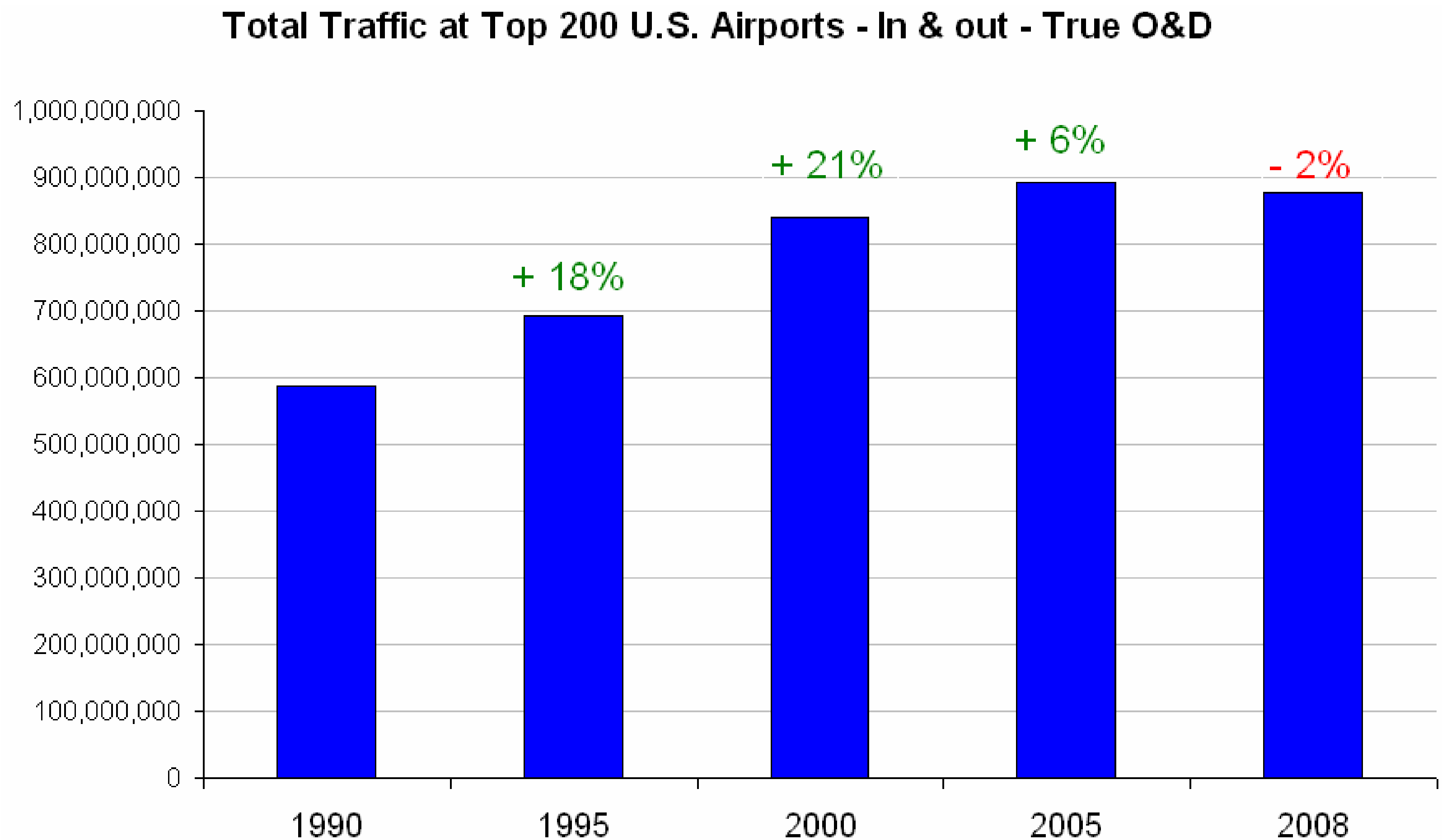
- Overview of Top 200 Airports 1990-2008
  - Domestic Passenger O&D Traffic, Revenue and Fares
  - Differences Between Largest and Smaller Airports
- Number of Domestic Destinations with Reported Traffic
- Impacts of Low-Cost Carriers at Airports
  - Changes in LCC presence and number of competitors
  - Market shares by airport and overall
- Airport concentration levels (HHI)
  - Relationship between Passenger Traffic and HHI
- Airport “Winners” and “Losers” of Traffic
  - Greatest increases and losses of domestic passengers

Data Source

- DOMESTIC DATA ONLY: DOT 10% O-D Ticket Sample
  - Data extracted 1990, 1995, 2000, 2005 and 2008
  - Sum of True O&D domestic itineraries, in and out (departing plus arriving) traffic at each airport.
  - Top 200 airports are defined as the top 200 airports in the U.S. ranked by number of passengers in Q4-2005
  - Top 200 airports accounted for 97% of the total domestic O&D traffic in the U.S. in 2008

Domestic Traffic at Top 200 Airports*

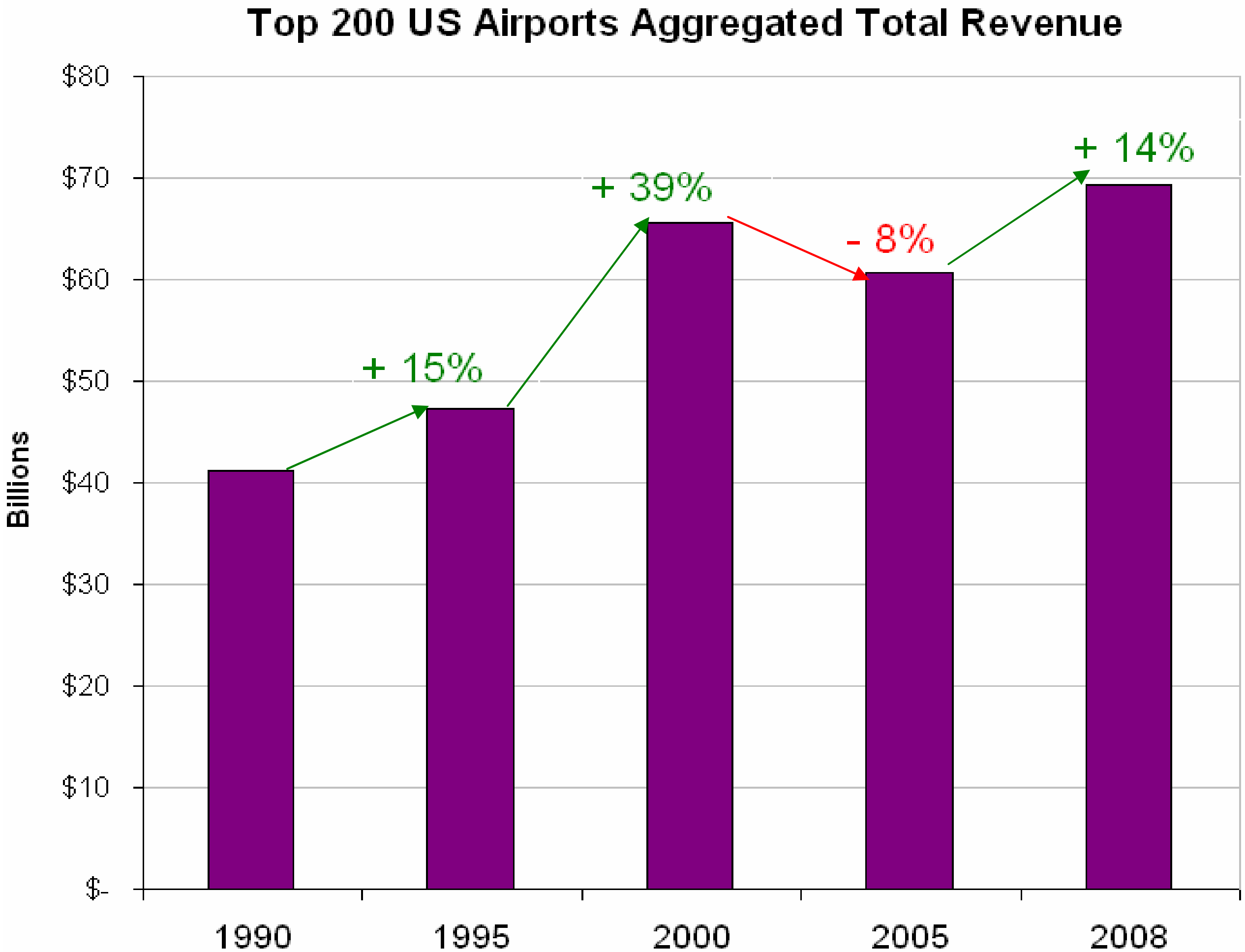
- Passenger volumes increased by more than 50% from 1990 to 2005, but have dropped recently.



*Sum of In & Out O&D passengers at each airport results in double counting

Total Revenue at Top 200 Airports*

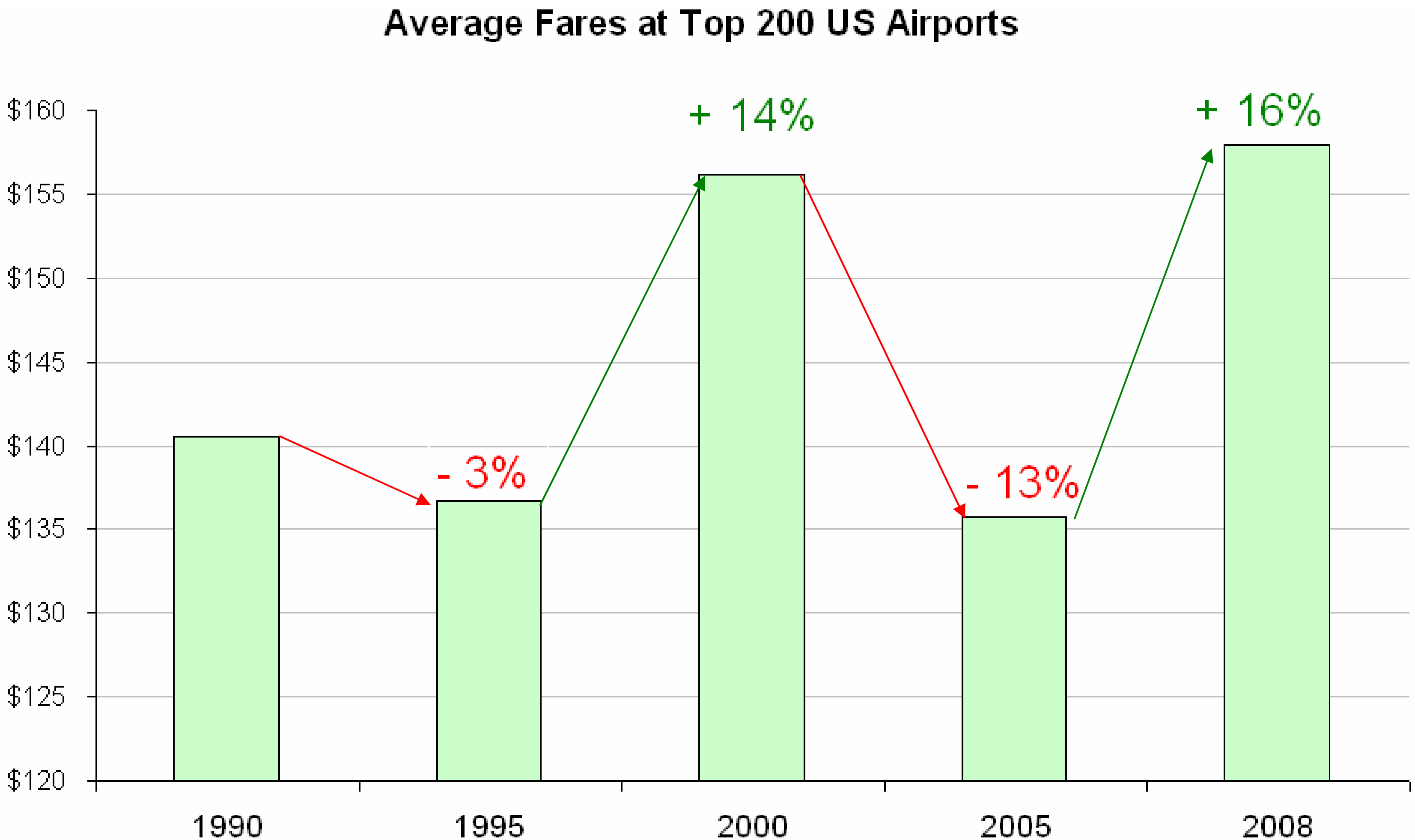
- In contrast to domestic traffic, revenues declined 2000 to 2005, followed by more recent increase.



*Total In & Out O&D revenue at each airport divided by 2

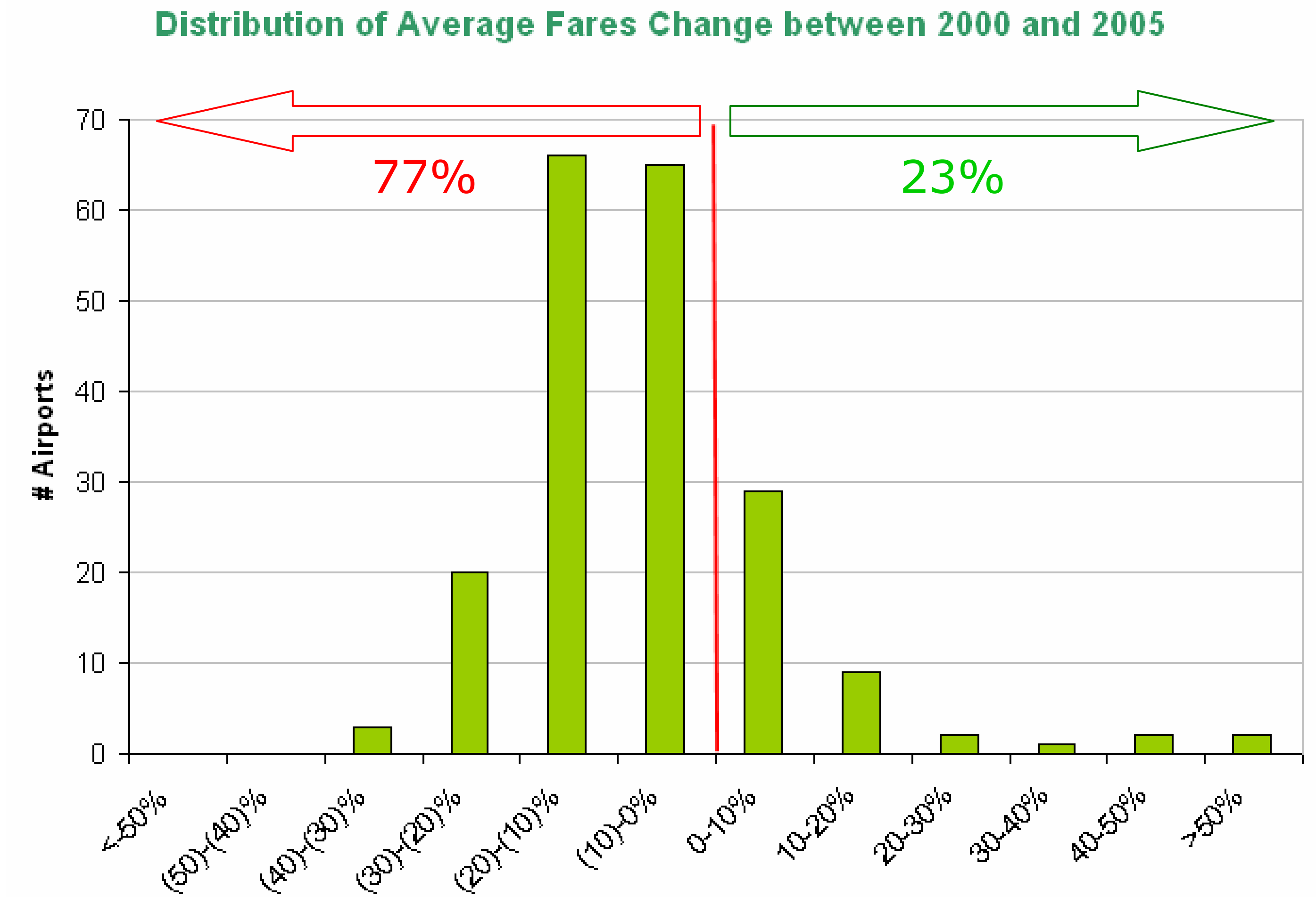
Average Fares at Top 200 Airports

- Lower average fares contributed to higher passenger volumes but lower revenues in 2005



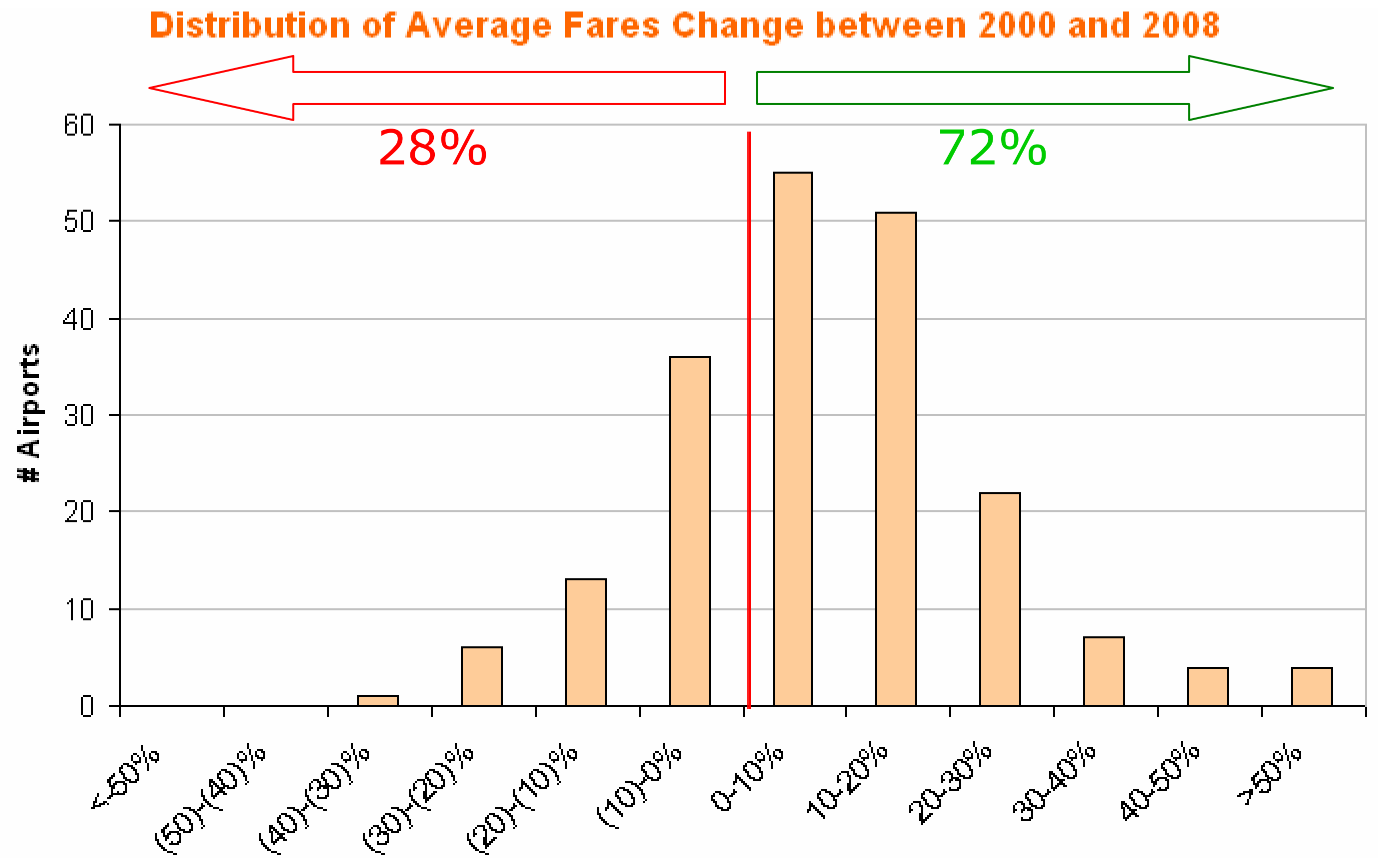
Distribution of Average Fare Changes

Biggest decreases in average fares occurred from 2000 to 2005 – 77% of airports had lower fares



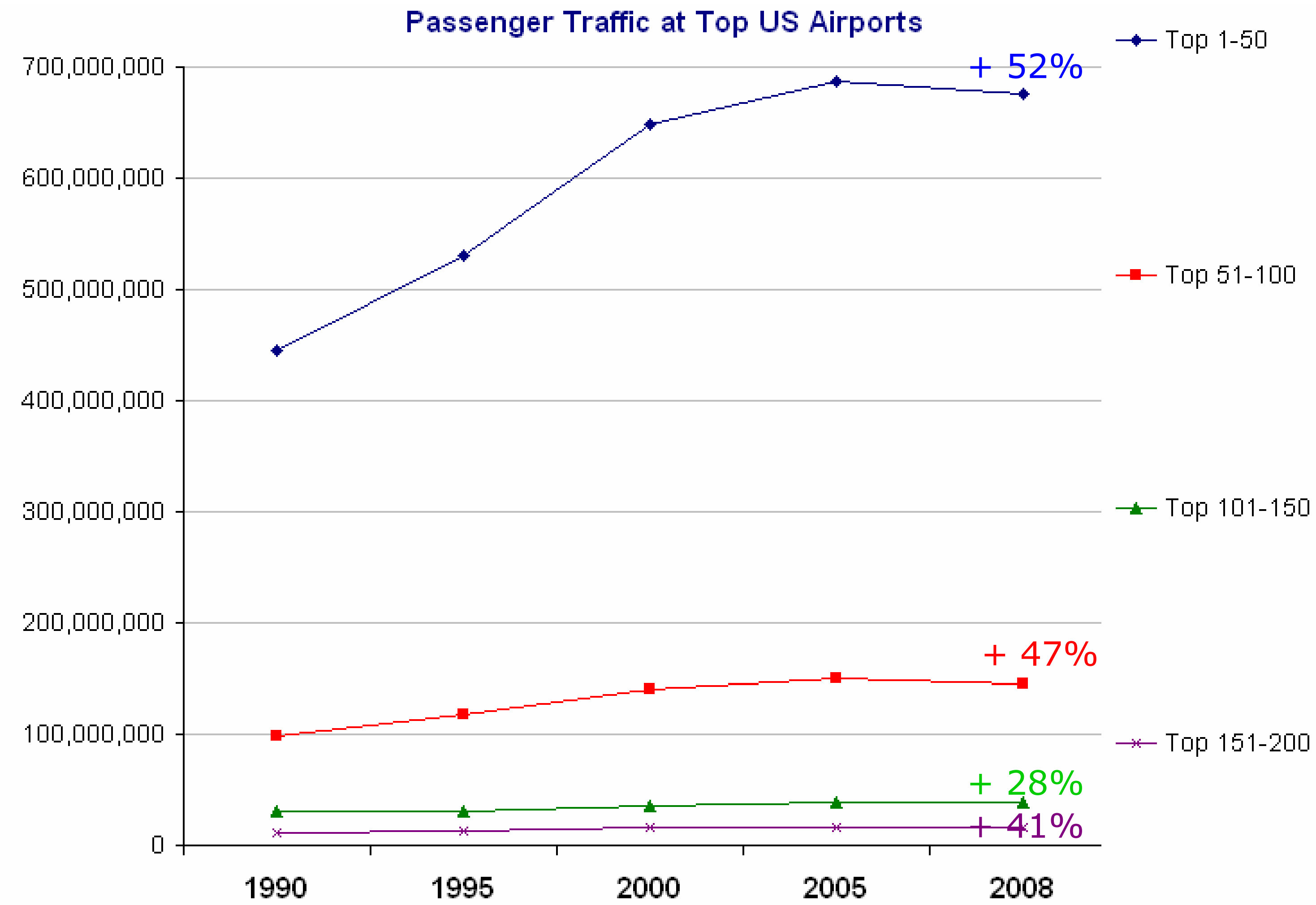
Distribution of Average Fare Changes

- But, comparing 2008 to 2000, 72% of these airports have had overall increases in average fares



Passenger Traffic by Airport Rank

- Passenger traffic increased the most, in absolute and percentage terms, at the top 50 airports.

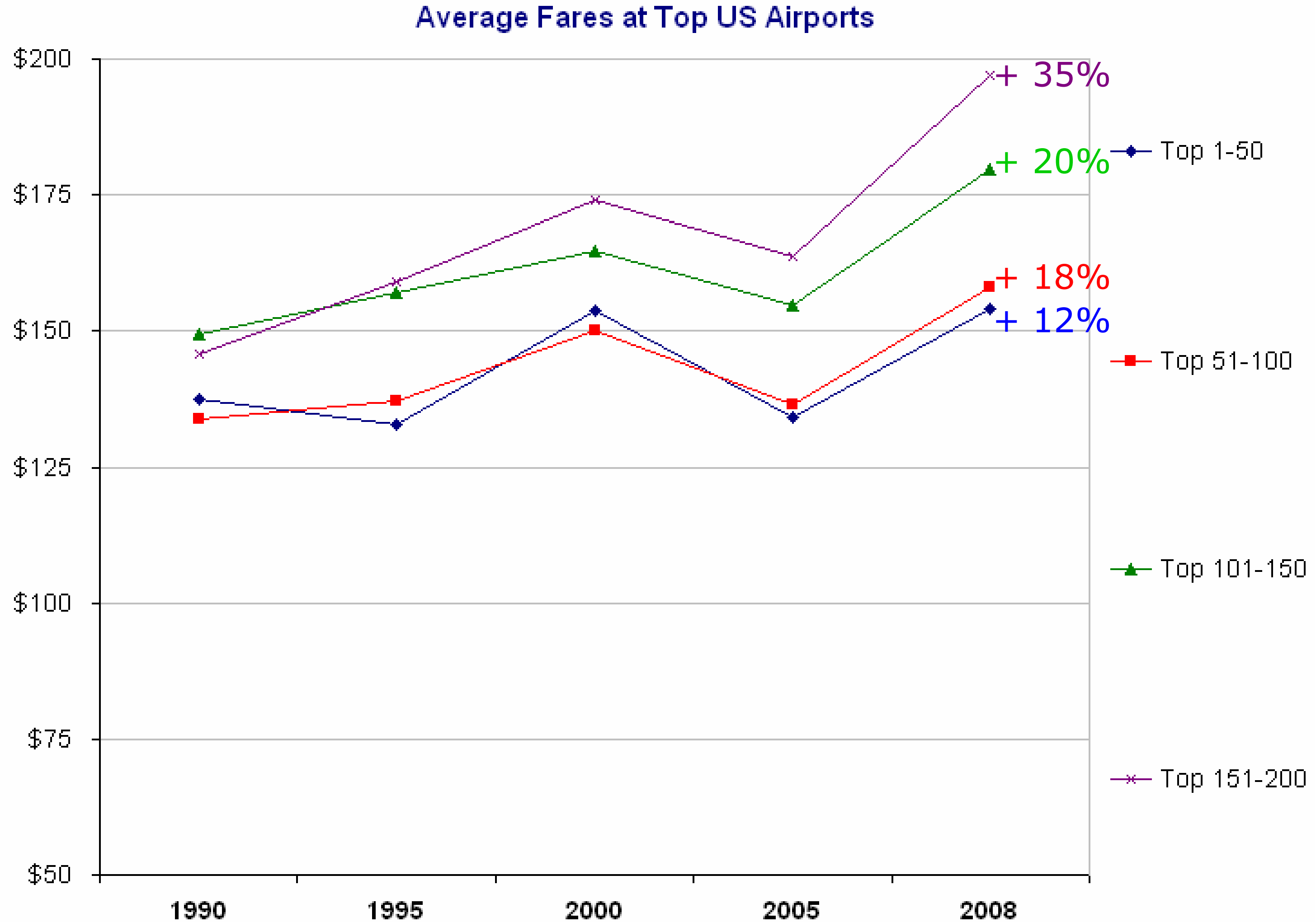


Total Revenue by Airport Rank

- Total domestic revenues decreased the most at the top 50 airports between 2000 and 2005.

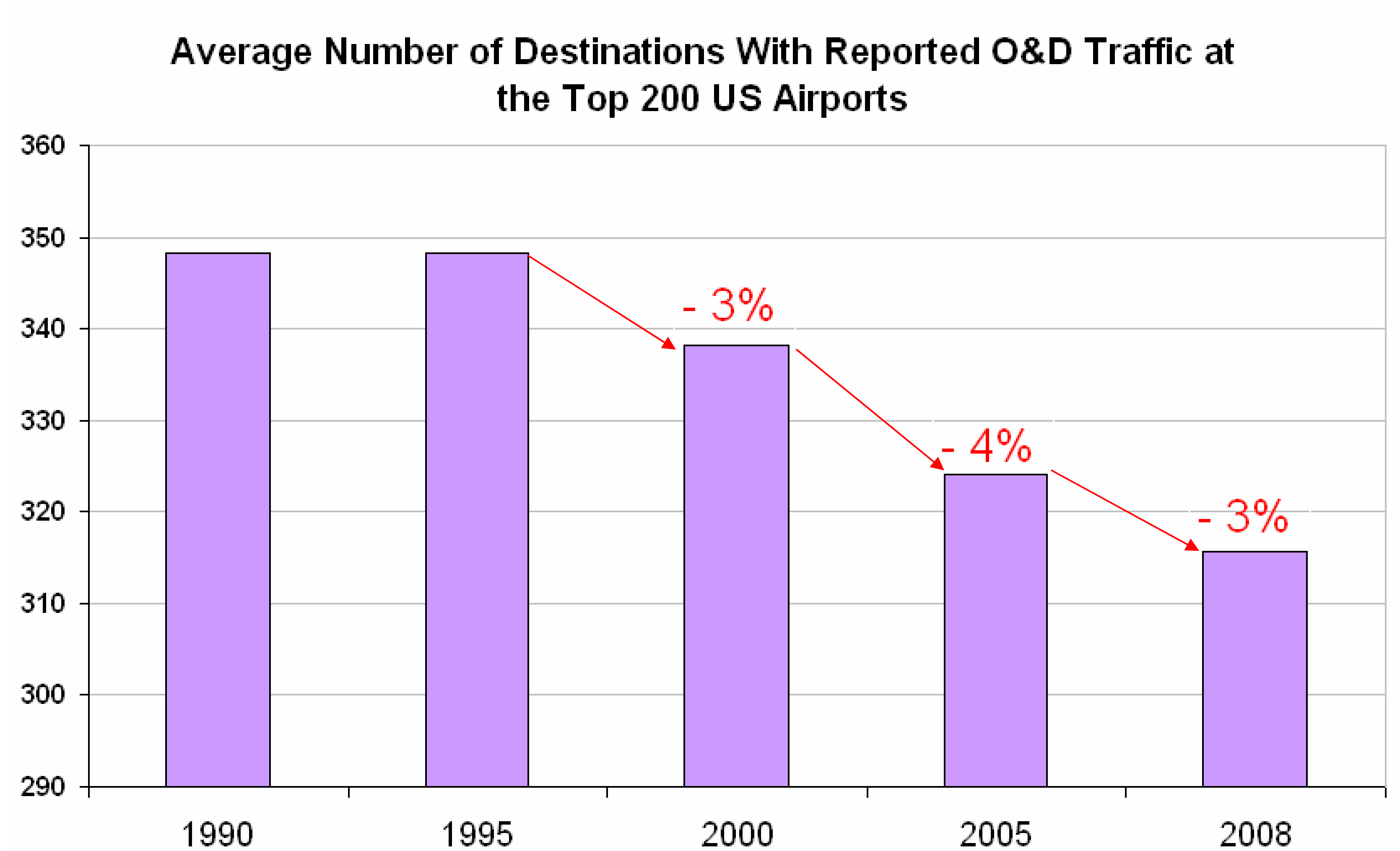
Average Fares by Airport Rank

- Average fares at the smaller airports are consistently higher than average fares at the busiest airports



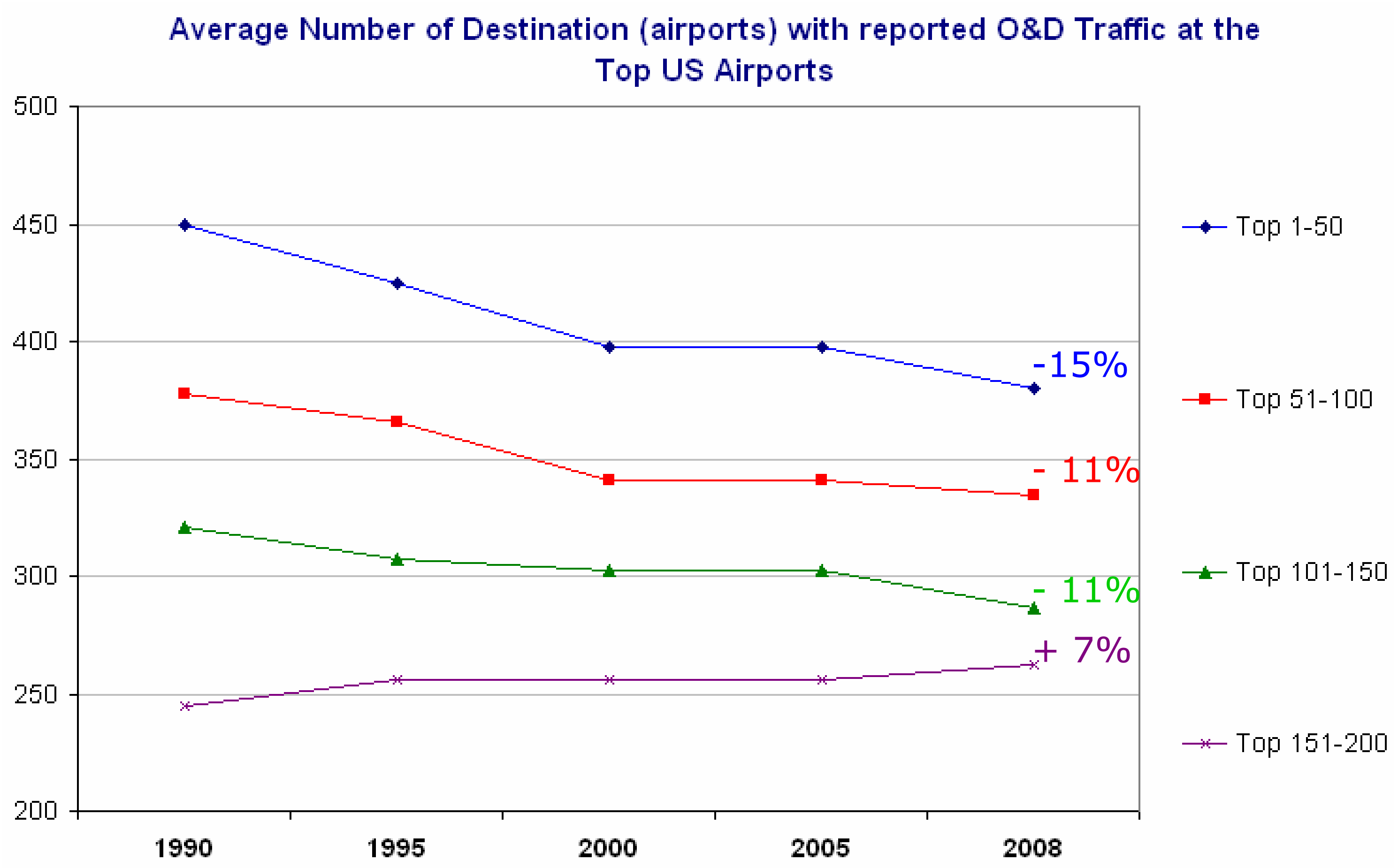
Number of Destinations (airports) with Reported O&D Traffic

- The average number of destinations with reported O&D traffic at the Top 200 airports has decreased steadily since 1995



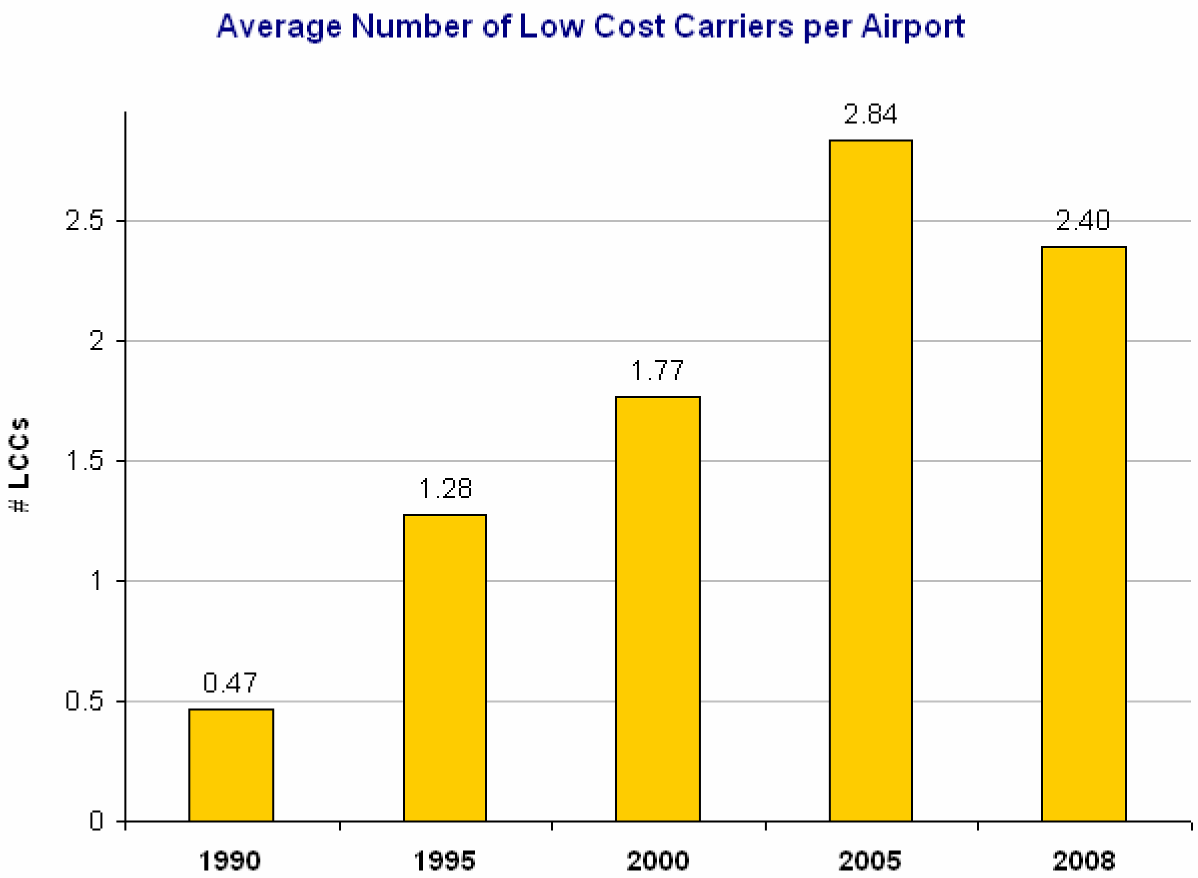
Number of Destinations (airports) with Reported O&D Traffic by Airport Rank

The decrease in the number of destinations has been more pronounced for the biggest airports, while the smallest airports have increased their number of destinations



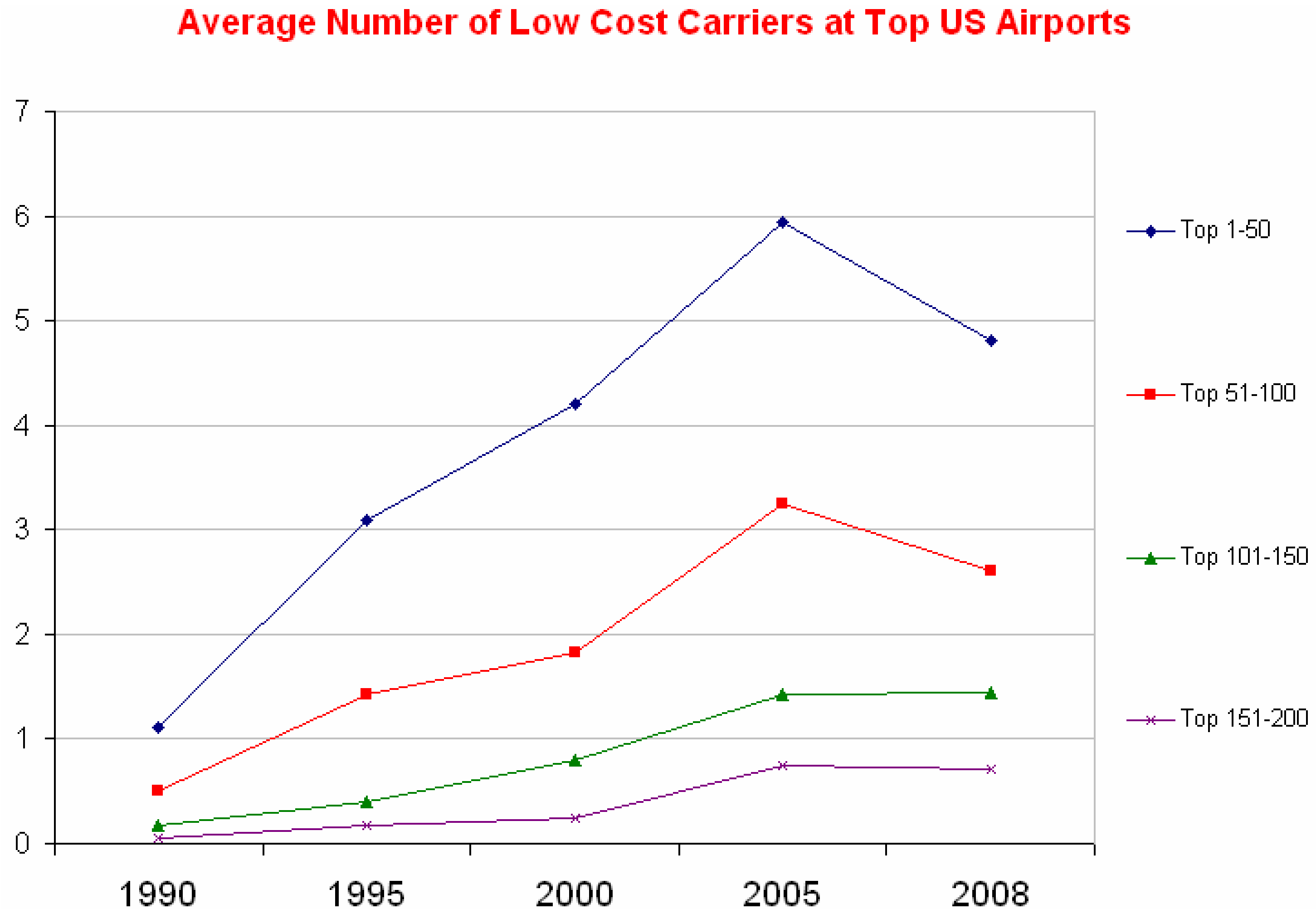
LCC Presence at Top 200 Airports

The average number of Low Cost Carriers per airport steadily increased 1990-2005, but has recently dropped.



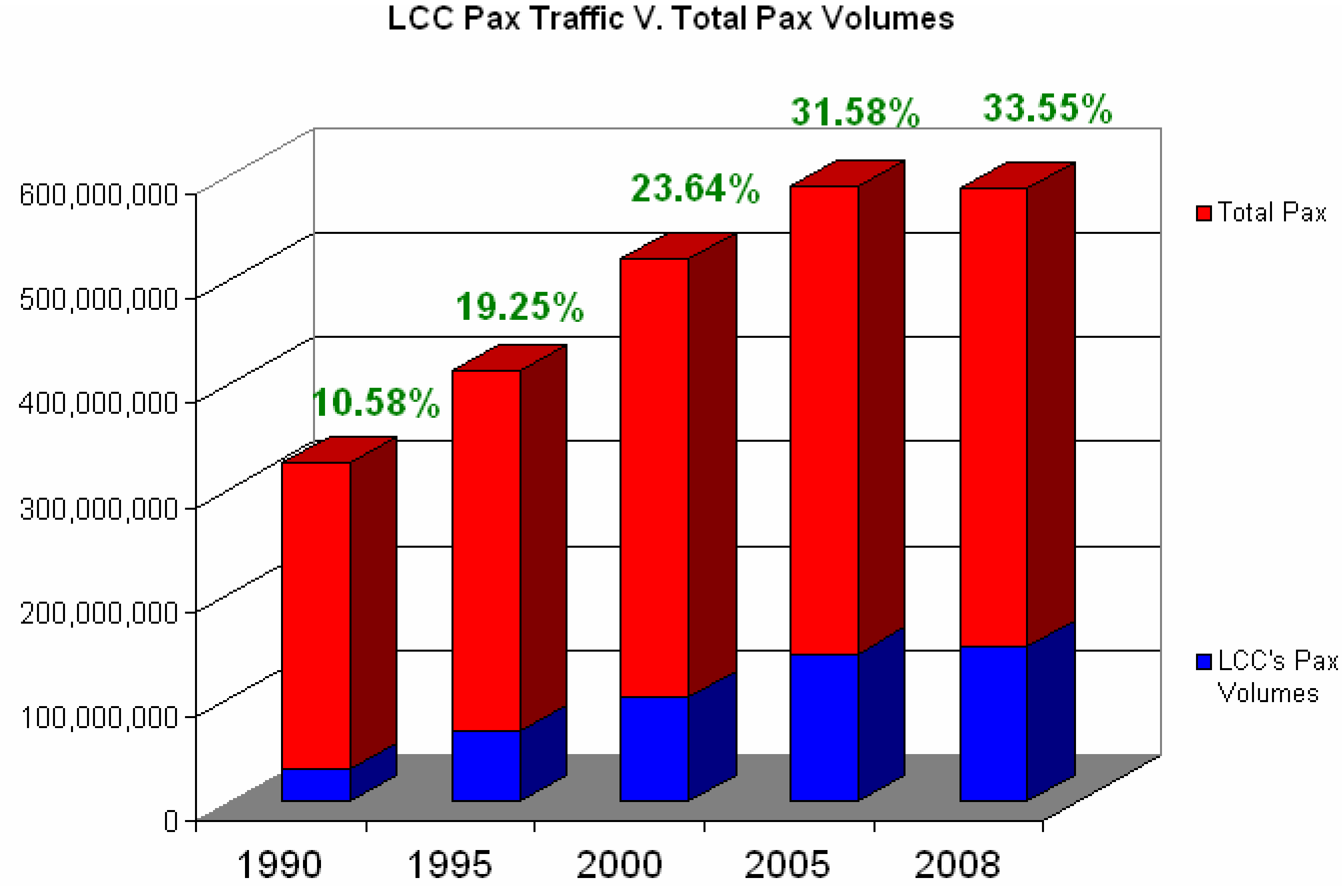
Average Number of Low Cost Carriers by Airport Rank

LCC presence is greatest at the biggest airports, where they compete not only against NLCs but also against each other.



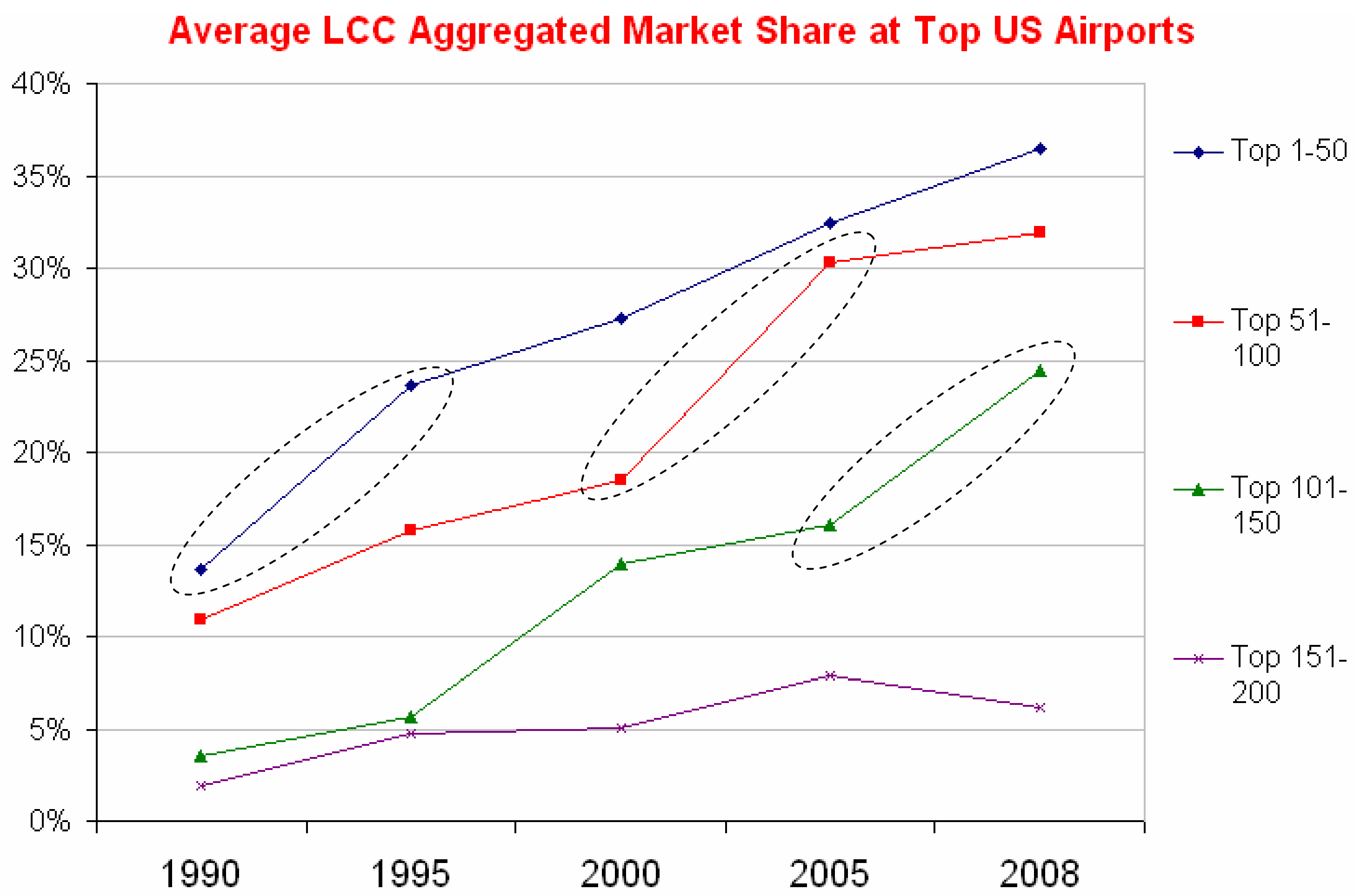
LCC Share of Total Domestic Passenger Traffic at Top 200 Airports

- LCC Market Share is still growing but leveling off, reaching 34% of total US domestic passengers in 2008



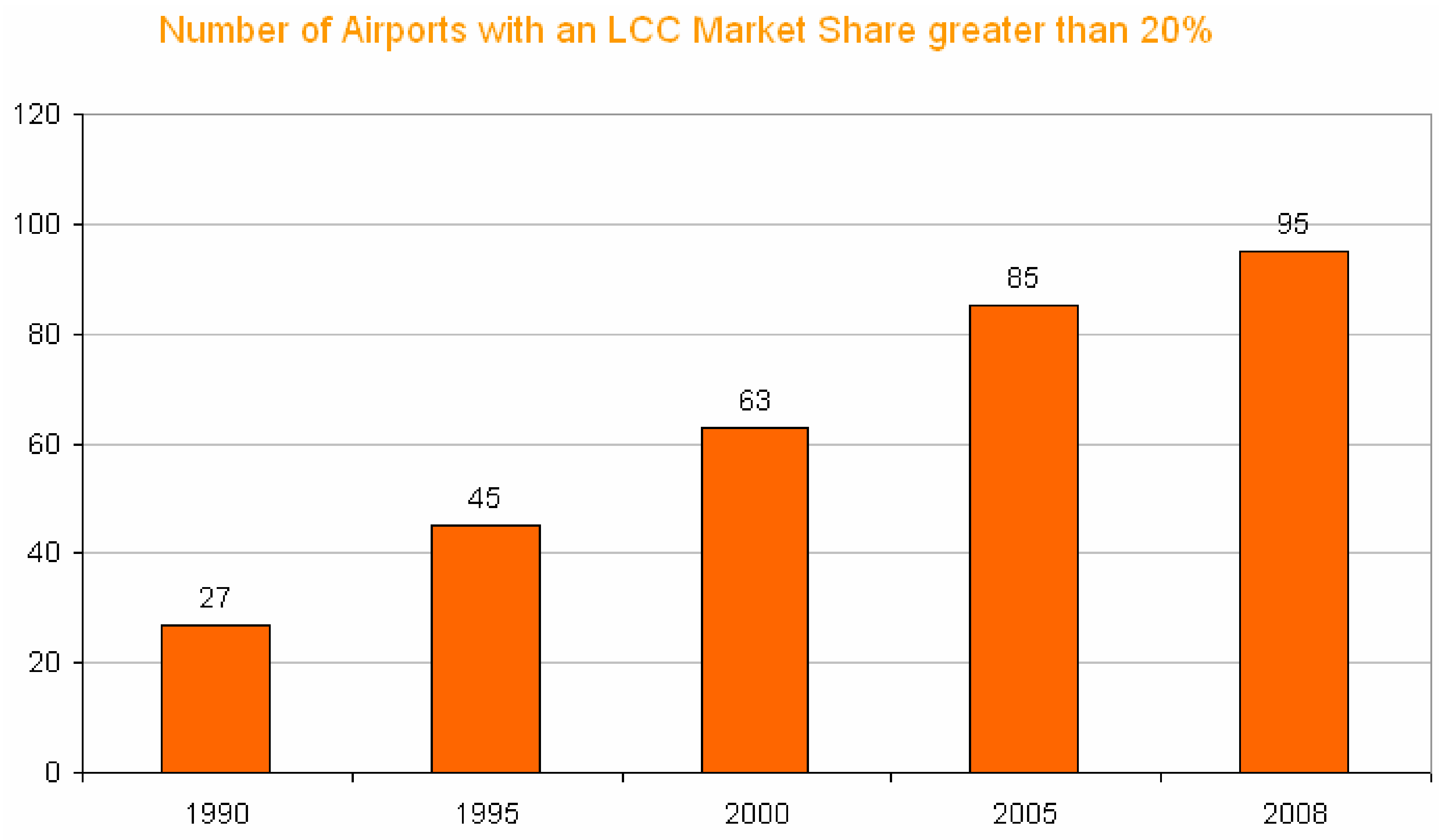
LCC Aggregated Market Share by Airport Rank

- Low Cost Carriers focused first on largest airports, then grew rapidly in the second and third tiers.



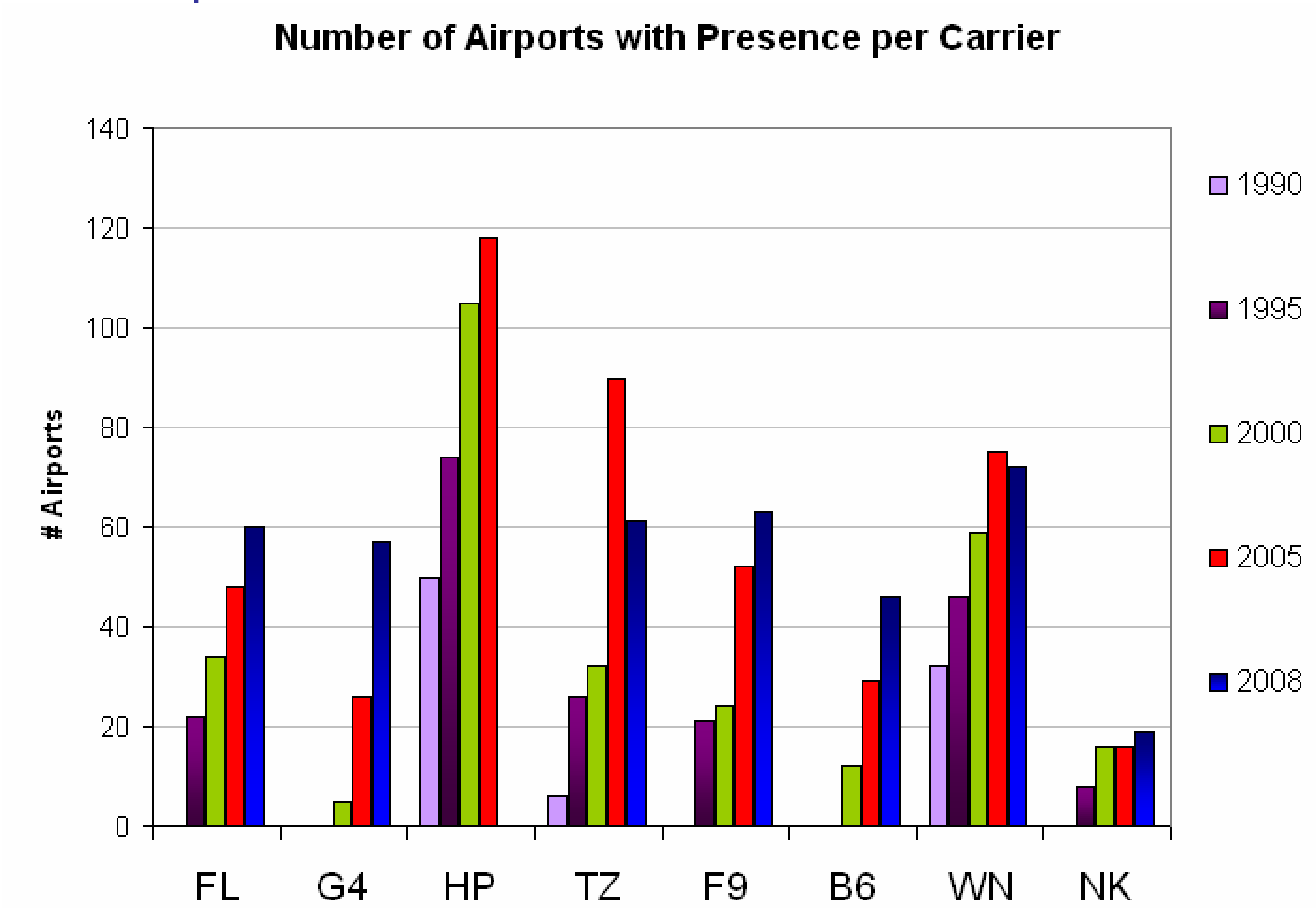
Number of Airports with LCC Market Share Greater than 20%

- In 2008, 95 of the Top 200 US airports had aggregated LCC Market Share greater than 20%, up from only 27 in 1990



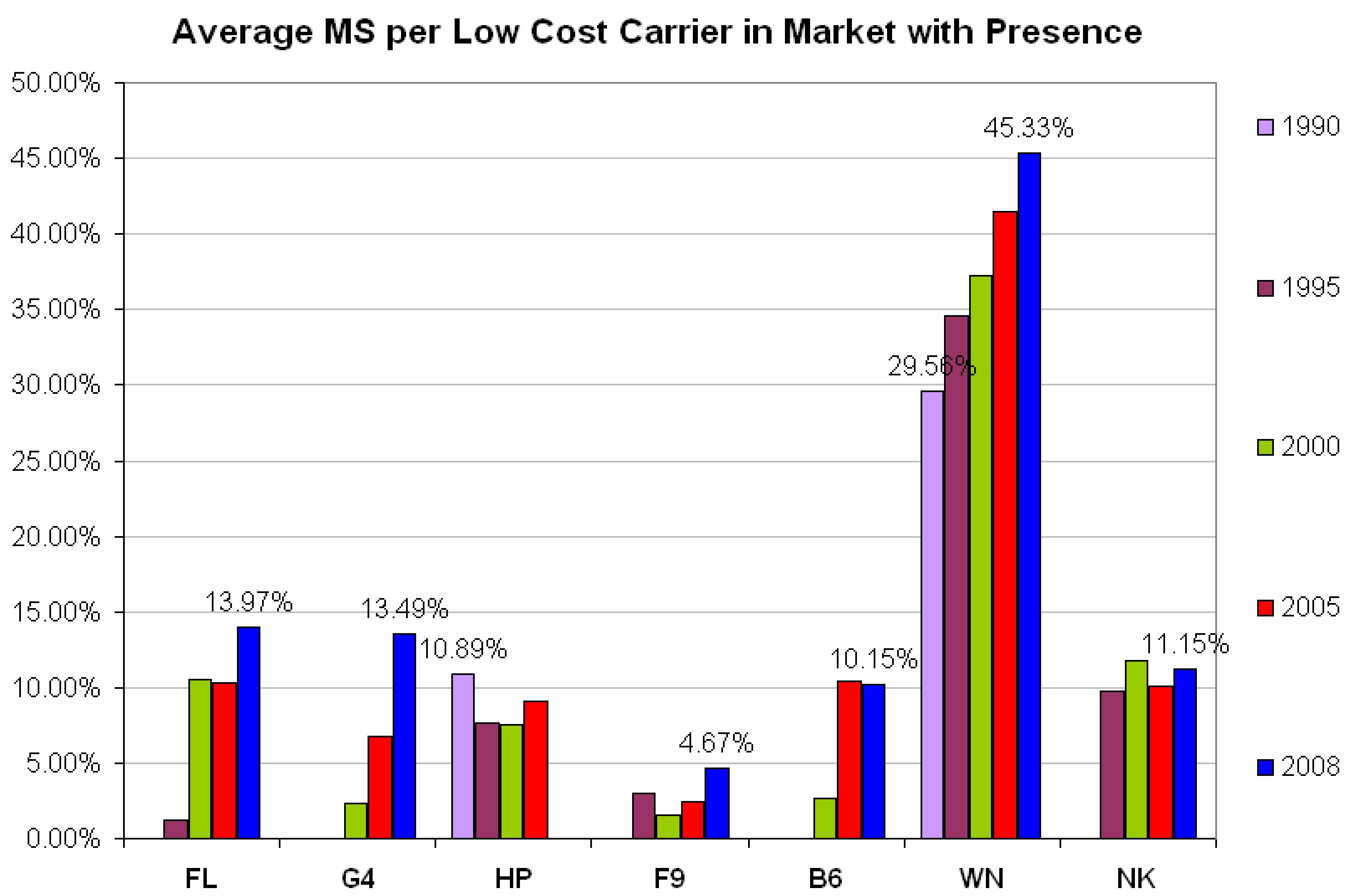
Number of Airports Served per LCC

Jet Blue (B6) is still expanding its presence in the Top 200 airports list, while Southwest (WN) withdrew from 3 airports in 2008 as compared to 2005.



Average Market Share per LCC

- Southwest has significantly increased its market Share in its markets



Airport Concentration Levels

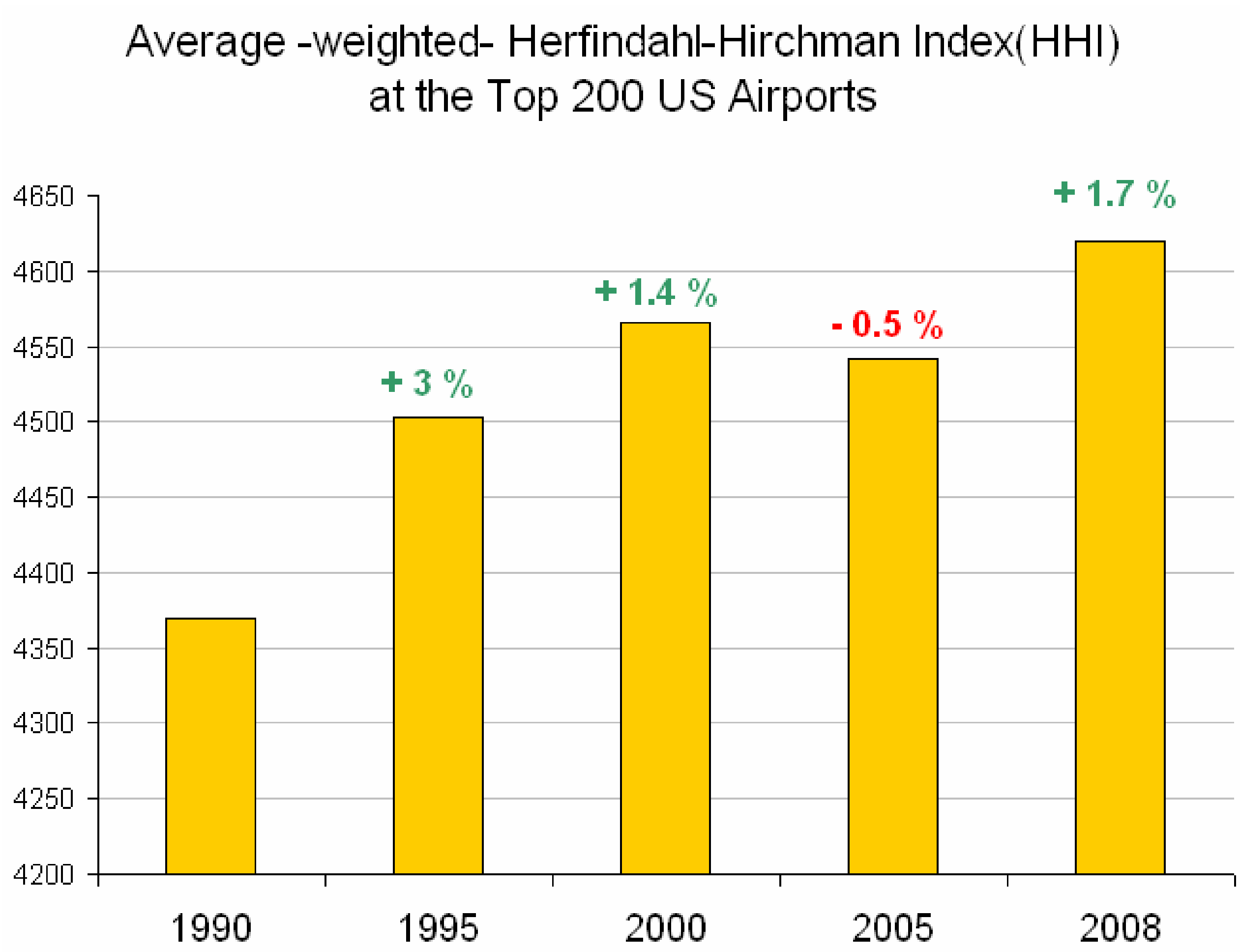
- Airport level concentration measured by HHI
  - Hirschmann-Herfindahl Index measures market concentration
  - Weights large market shares of dominant carriers more heavily

$$HHI = \sum (\text{Passenger Market Share per Carrier at airport})^2$$

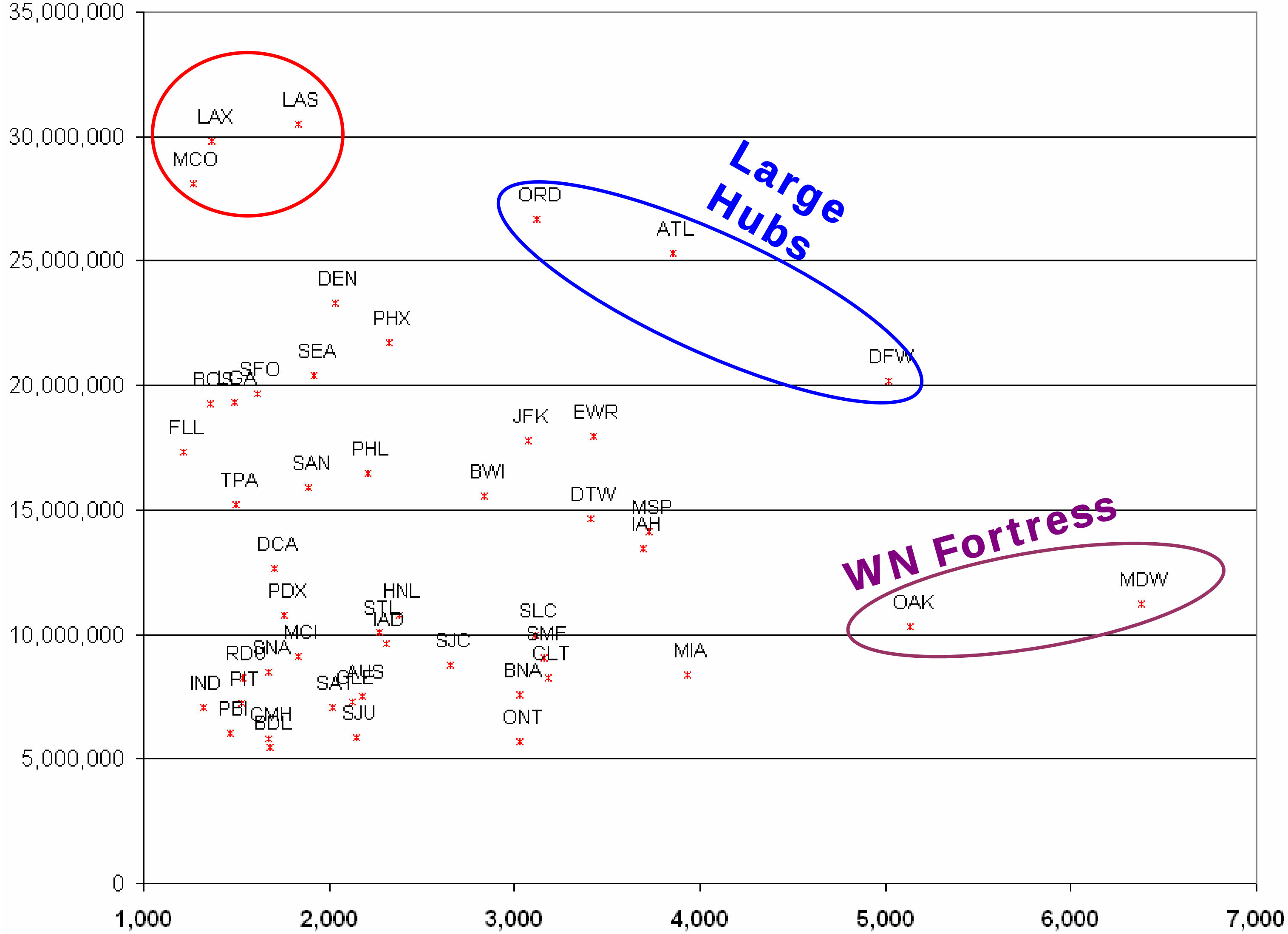
- Average HHI measures for Top 200 US airports
  - Weighted based on proportion of passenger per airport relative to the total Top 200 airports' passenger traffic.

Average Airport Concentration Levels

- By 2008, the average (weighted) HHI at the Top 200 US airports increased by 8% compared to 1990

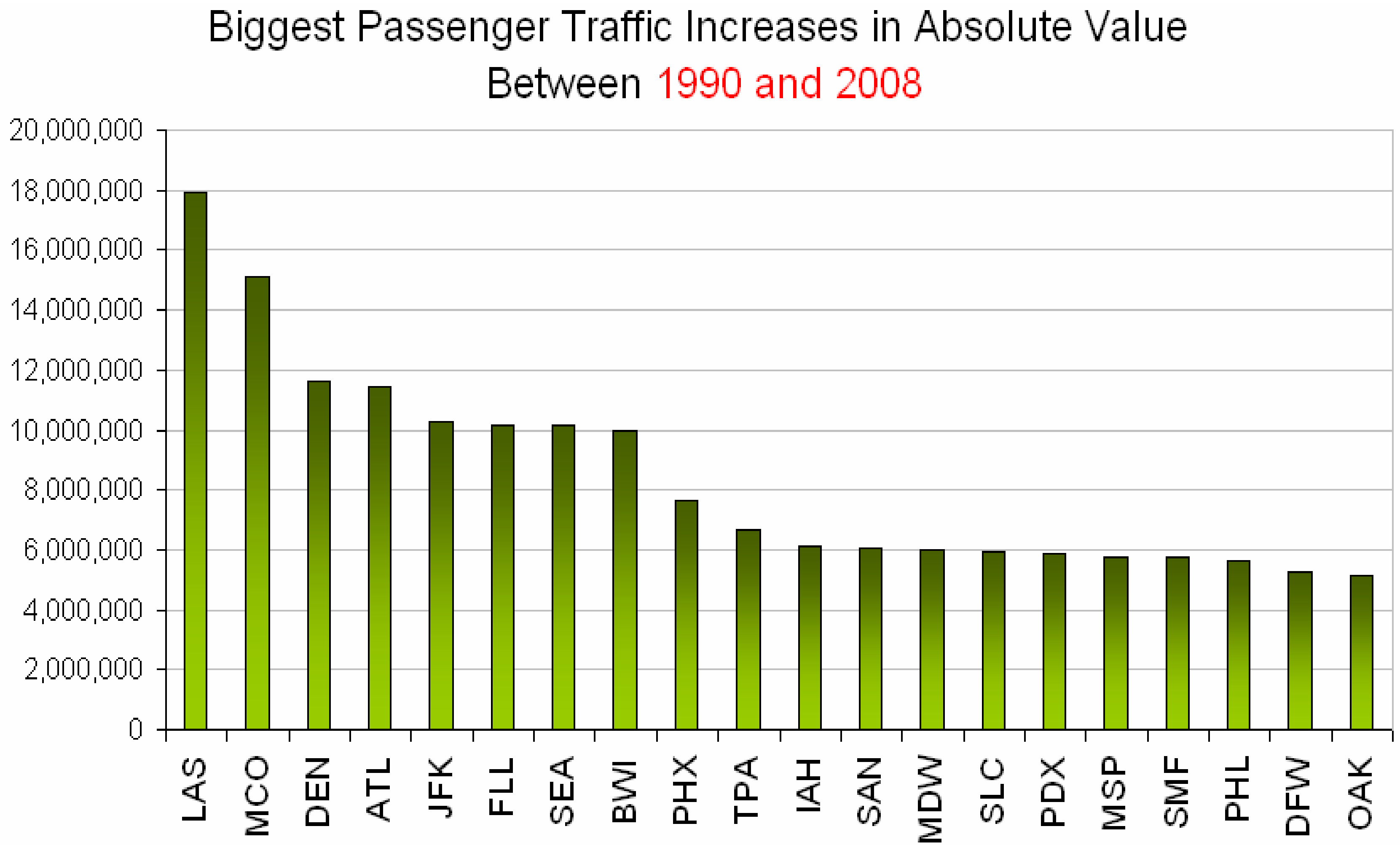


Top 50 US Airports
Domestic Passenger Traffic vs. HHI 2008



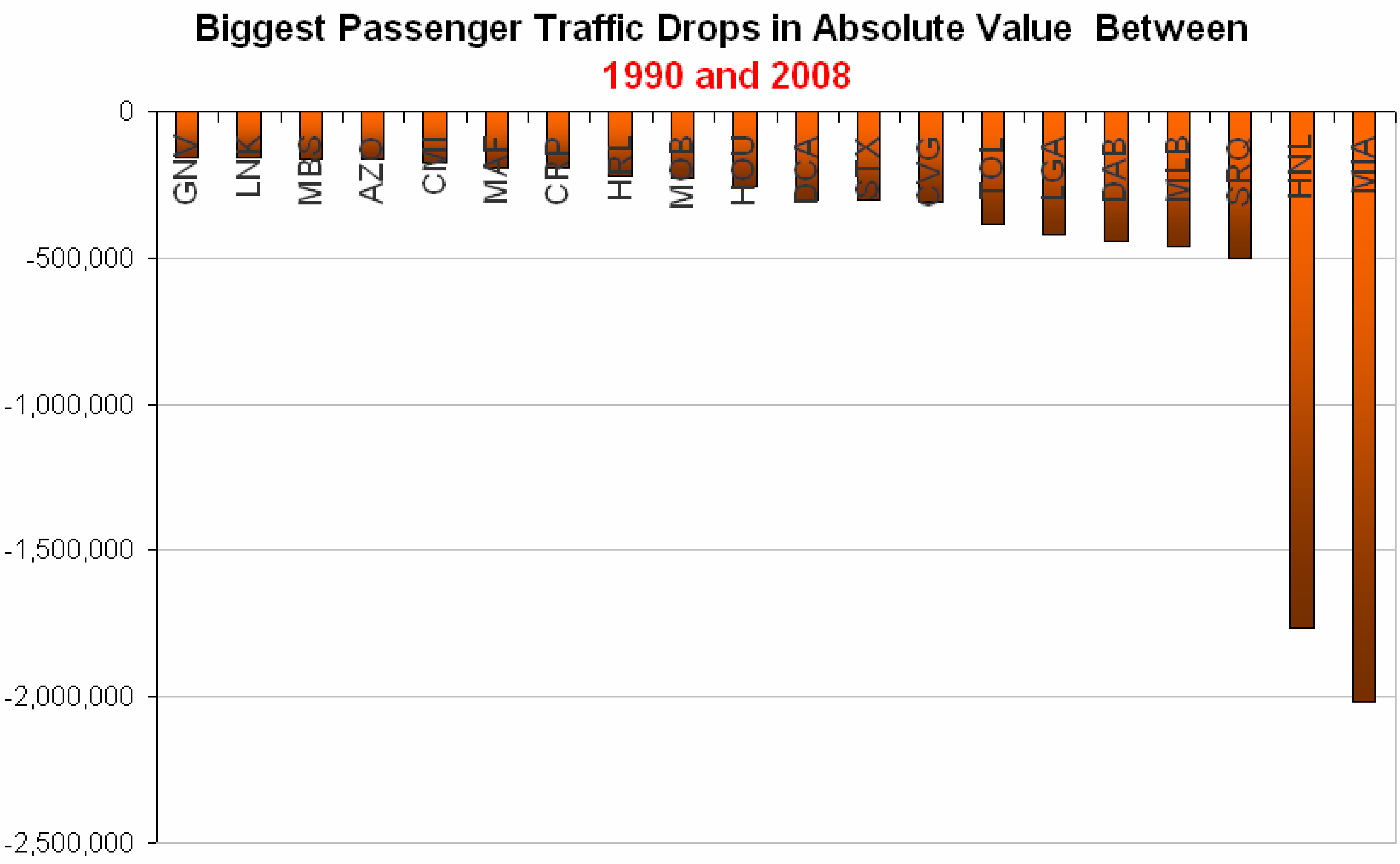
Airports with Greatest Traffic Growth 1990-2008

- Leisure destinations (LAS,MCO,FLL) are the biggest winners in term of passenger traffic absolute value changes.



Airports with Greatest Traffic Losses 1990-2008

Major drop at HNL, and dramatic shifts from MIA to FLL, as well as from nearby Florida airports to Tampa and Orlando.



Summary: Top 200 Airports

- Total domestic passengers increased by 52% 1990-2005, but dropped by 2% since then
  - The average number of destinations per airport with reported O&D traffic has been decreasing since 1995

- Airport market concentration levels have increased. In 2008, the average (weighted) HHI was 8% higher than in 1990

- LCC share of domestic traffic is still growing but leveling off, reaching 34% in 2008
  - 95 of the Top 200 airports had an LCC aggregated market share greater than 20%, up from 27 in 1990

- JFK, DEN and major leisure destinations have seen greatest traffic growth during the study period
  - HNL, MIA and smaller Florida airports have lost the most traffic

Airport Market Research

Little Empirical Data, Lots of Anecdotal Evidence

W. Swelbar

Impetus of Research

A Smaller US Airline Industry

Where is growth occurring?

- What are the attributes of growing markets?

Where is shrinkage occurring?

- What are the attributes of shrinking markets?

Despite Shrinkage, Is Competition Being Preserved?

Impact of LCCs on Legacy Carrier Networks?

Policy Questions Sure to Arise

- Essential Air Service Program
  - Is 1978's Program Still Applicable?

- Always Political Concerns Surrounding Commercial Transactions

- How Much Air Service Is Too Much Air Service?
  - 450+ Airport Markets With Commercial Air Service
  - Are We Funding Airport Projects Efficiently?

- Penultimate Question: Can Shrinking Airline Networks Support Yesterday's Commercial Airport Map?

Further Research

- **Add Some Economic/Demographic Data to Each Airport Market**
- **Define Airports Within the Catchment Area**
  - **This analysis should shed light on diminishing service at many of the US small and non-hub airports**
- **Most Importantly, Get Input From Airline Industry Consortium Members On What Further Research Needs to Be Done**