

Special Feature

Price Discrimination in the Presence of Low-Fare Competition

The fares that passengers pay to fly on network airlines are generally determined by sophisticated yield management systems. These systems use past flight data and current booking information to estimate the demand for a particular flight, and then distribute seats into different fare classes accordingly. Fare classes are subject to a variety of conditions. For example, tickets in the most expensive fare class are usually the ones that can be bought at the very last minute and carry no restrictions. Conversely, some fare classes are characterized by heavy restrictions such as a Saturday night stay and a 3-week advance purchase requirement. Passengers that find those restrictions acceptable enjoy the lowest fares if seats are available in that particular fare class. In between the two extremes is a range of fare classes that entail varying levels of restrictive provisions.

Yield management systems attempt to maximize the airline's revenue by allocating each seat to the highest-revenue fare class possible. Yield management systems allow airlines to constantly adjust seats available at any given fare based on real-time changes in demand for every flight. If the number of seats available in a market is limited relative to demand, and in the absence of an effective price competitor, the airline will be able to sell so many seats in the fare classes associated with high fares that relatively few seats will be offered at low prices in restrictive fare classes. The presence or absence of low-fare competition is an important factor affecting the number of seats made available to passengers who desire to use lower-level fares.

In order to determine how the allocation of network airline seats differs in markets with low-fare carrier competition versus those without low-fare competition, we have counted individual carrier passengers that paid very high and very low fares in the top-1,000 short-haul markets. We then divided the markets into groups with and without low-fare competition.¹ The results can be seen on the attached table.

As shown, network carriers sell a larger percentage of seats at low fares when faced with low-fare competition. In most instances, the difference is quite large. For the second quarter of 1999, US Airways, for example, sold 73% of its seats for below \$75 each way when competing with a low-fare carrier; only 20% of US Airway's tickets were sold for under \$75 when a low-fare competitor was not present. Similarly, the absence of a low-fare competitor translated into a higher percentage of passengers flying at greater than \$300 each way for all the carriers examined.

One apparent exception to the overall pattern of more price discrimination in non-low-fare markets is United Airlines. United carried the same percentage of passengers at the over \$300 fare in both types of markets, and the variance between proportion of passengers flying at very low fares in the two types of markets was not great relative to many of the other carriers examined. A closer inspection of United's short-haul markets reveals that many of the city-pairs classified as non-low-fare have substitute markets that are served by Southwest Airlines, a low fare carrier. Specifically, many of United's 'non-low-fare' markets include San Francisco, which is disciplined heavily by Southwest's service not only into San Francisco but also into nearby Oakland. United appears to have made seats available at low fares in the San Francisco to Las Vegas, Burlington CA, Ontario CA, Reno, and Santa Barbara markets as if they were price discriminating in low-fare markets, because Southwest served each of those cities from Oakland.

The impact that mix can have on average fares is evident from this data. For instance, low fares are obviously available in American Airlines' non-low-fare short-haul markets, as 20% of American's customers in those markets flew for less than \$75 each way. However, over twice the proportion of

¹ Includes all markets under 500 miles nonstop in the top 1,000+ for the 2nd quarter of 1999. Low-fare markets are defined as city-pairs in which a low-fare carrier held at least 10% of the passenger market share.

American passengers in low-fare markets was sold seats at less than \$75. While the lowest fare available in these two market sets might have been comparable, the mix of seats sold at that low fare level was markedly different. As a result, the average fare for non-low-fare markets was 31% higher than the average fare in low-fare markets.

This exercise illustrates the need for consumers to be particularly vigilant when searching for low fares in markets without low-fare competition. Low fares are offered in these markets, but limited availability makes them harder to obtain. When a market has a high average fare, it is usually an indication that a wide range of fares is offered, and that low fare seats are not widely available. As we mention in the introduction to this report, the Department's Aviation Consumer Protection Division offers a fact sheet entitled *Getting the Best Air Fare* that offers consumer advice on the subject. The fact sheet can be obtained by calling (202) 366-2220 or via the Internet at <http://www.dot.gov/ost/ogc/subject/consumer/aviation/publication/bestfare.html>.

Passengers of Major Network Carriers on Short-Haul Routes, 2nd Qtr 1999

Carrier		All Markets	
		Low-Fare Markets	Non-Low-Fare Markets
AA	Average Distance	311	300
	Average Fare	\$105	\$138
	Passengers under \$75 Each Way	332,850	44,400
	% Passengers under \$75	44%	20%
	Passengers over \$300 Each Way	25,090	16,690
	% Passengers over \$300	3%	8%
CO	Average Distance	329	298
	Average Fare	\$101	\$192
	Passengers under \$75 Each Way	195,740	103,620
	% Passengers under \$75	36%	14%
	Passengers over \$300 Each Way	17,470	125,090
	% Passengers over \$300	3%	17%
DL	Average Distance	352	291
	Average Fare	\$121	\$173
	Passengers under \$75 Each Way	353,140	133,200
	% Passengers under \$75	36%	13%
	Passengers over \$300 Each Way	60,930	159,990
	% Passengers over \$300	6%	15%
NW	Average Distance	382	346
	Average Fare	\$129	\$175
	Passengers under \$75 Each Way	214,220	40,620
	% Passengers under \$75	28%	11%
	Passengers over \$300 Each Way	60,920	85,410
	% Passengers over \$300	8%	22%
TW	Average Distance	337	377
	Average Fare	\$89	\$185
	Passengers under \$75 Each Way	175,200	16,450
	% Passengers under \$75	52%	17%
	Passengers over \$300 Each Way	5,110	24,490
	% Passengers over \$300	2%	25%
UA	Average Distance	346	362
	Average Fare	\$107	\$120
	Passengers under \$75 Each Way	750,380	235,930
	% Passengers under \$75	46%	35%
	Passengers over \$300 Each Way	75,990	31,090
	% Passengers over \$300	5%	5%
US	Average Distance	344	323
	Average Fare	\$94	\$176
	Passengers under \$75 Each Way	176,950	505,340
	% Passengers under \$75	73%	20%
	Passengers over \$300 Each Way	18,490	421,090
	% Passengers over \$300	8%	17%