

STATEMENT OF THE SECRETARY OF TRANSPORTATION

In the past year, American consumers have saved an estimated \$6.3 billion in airline fares because of the competition brought about by new low cost, low fare airlines -- up from only \$1 billion in savings eight years ago. To the average passenger in cities where low cost carriers exist, they've reduced the average one-way ticket \$54 -- or \$70, if a city happens to be a major airline's hub. Today, one of every seven passengers is flying because of the competition provided by these airlines. And taken together, these carriers are now larger than our nation's largest carrier.

Indeed, there has been a revolution going on in American airline travel.

This is in large measure due to the strength of the American economy. Under President Clinton's leadership for the past three years, our nation has maintained low inflation rates and low interest rates. We have cut the federal deficit in half and fostered an economic climate in which 8.4 million new private sector jobs have been created. With more readily available capital and more people working who are getting on airplanes, the economic conditions for a healthier, more competitive airline industry has never been better. Major carriers, it should be strongly noted, continue to do well also, reporting net profits last year of \$2 billion.

The Department of Transportation will continue its efforts to ensure that these conditions prevail. As in the past, it will use its resources to firmly discourage predatory practices. It will work with cities where competition would benefit its travelers. Through an annual update of this report, the department will draw attention to the markets where competition is and is not occurring. Additionally, it will examine why low cost low fare service is succeeding in some, but not all markets. And finally it will continue to carefully scrutinize new-carrier applicants. While one-third of applicants today are rejected, the department will expedite those which demonstrate their sound financial ability to safely operate an airline.

As the success of new low cost, low fare carriers expands, and as major airlines continue to both respond to the challenge and operate profitably -- as they are doing -- American consumers will continue to benefit from this competition through increased service and lower fares.

Federico Peña

THE LOW COST AIRLINE SERVICE REVOLUTION

Study in

Brief:

- o The rapid expansion of low cost, low fare service in the United States by a growing cadre of carriers is a watershed development in domestic aviation that is having a profound effect on efficiency, competition, consumers and industry structure.**
- o A large and growing proportion of passengers in cities all across the country are now benefiting from the availability of low cost service.**
- o The consumer benefits of low fare service are enormous and are growing on a daily basis. We estimate that consumer savings are now \$6.3 billion annually, up from \$4.5 billion just 9 months earlier.**
- o The low cost service phenomenon is far from complete, and other carriers will face continuing pressures to become more efficient. The evidence suggests that network carriers and low cost carriers can co-exist, but the broad scope of low cost service means that additional fundamental change may be necessary for network airlines.**
- o The greater efficiency other carriers achieve in their efforts to compete with low cost carriers spills over into routes where low cost carriers do not compete. And new entrants inject the industry with new ideas which lead to service innovations and greater efficiency.**
- o The spread of low cost service has global implications. Our international carriers' efficiency gains that result from their competition with low cost carriers enhances their efficiency relative to foreign flag competitors. And low cost service should spread to international markets--both within major foreign arenas, such as intra-Europe, and between major foreign arenas, such as U.S. - Europe.**
- o The principal and fundamentally important advantage low cost carriers have over larger, established network airlines is their lower unit operating costs.**
- o At network hub cities where low cost carriers do not compete, fare premiums are quite high and are increasing.**

- o Consumers at network carrier hub cities who have been subjected to higher prices do not have to be. Low cost carriers and network carriers can coexist and provide consumers the benefits of both types of operating systems.**
- o Low fare stimulated demand has very positive implications for the airline industry labor force, and promotes substantial economic growth to the benefit of consumers, local communities, travel related industries, and the aerospace industry.**
- o Today, one of every seven domestic passengers is flying because of the increased competitiveness resulting from low fare service.**
- o Virtually all domestic traffic growth in recent years is attributable to the spread of low cost service.**
- o The Department of Transportation, in cooperation with the Department of Justice, must ensure that market forces are allowed to play out freely, without the distorting effects of predatory or otherwise anticompetitive exclusionary activity by incumbent carriers against new entrants.**
- o The Department of Transportation must explore why low cost new entrant activity is successful at most cities but has not developed at others, to ensure that non-economic impediments are not obstacles.**

Introduction:

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Since its deregulation in 1978, the U.S. airline industry has been in a continual state of evolution. The two most important operational developments that have taken place in the domestic industry are the formation of hub-and-spoke networks and the recent surge in new entrant activity, particularly new airlines with low cost operating strategies.

Hub-and-spoke networks have afforded a vast majority of passengers better, more competitive service than possible with pre-deregulation linear systems of service, but network systems have resulted in market power, and high prices in certain markets involving network hub cities. The advent of low cost carriers has had a dramatic impact in checking this market power, and prices generally, and has given rise to complaints regarding potentially unfair competitive practices by network airlines.

The domestic airline industry is continuing to undergo major change. In May, 1993, the Department of Transportation released a study of the effect Southwest Airlines was having at that time on the domestic airline industry.¹ That study pointed to the necessity for large, network airlines to bring about a major change in their cost and pricing structures, and, indeed, to rethink fundamental aspects of their business strategies, if they were to continue to remain competitive with Southwest.

Since then the industry's efforts at cost control are well known, including restructuring efforts such as dehubbing less efficient hub networks and discontinuing unprofitable routes, and service innovations such as Continental's CaLite experiment and United's Shuttle service on the West Coast. Delta has announced plans to proceed with its own low cost operation.

And since early 1993 the pace of this major evolutionary development has dramatically quickened. Southwest is no longer the only low cost air carrier. After years of little or no new entry, new airlines are entering the industry at a very rapid rate which shows no signs of letting up. This phenomenon is proving to be quite significant because several of these new carriers have adopted low cost, low fare strategies, that have enabled them to successfully compete with larger, established carriers. These low cost carriers are having dramatic effects on fares and traffic, and are proving to be competitive even at network carriers' fortress hubs.

Despite this recent increase in new carriers, not all applicants are able to meet the Department's stringent fitness standards. In order to receive a license, companies must demonstrate that they have a complete and competent management team, a reasonable operating proposal and access to sufficient financial resources to initiate service under

¹ THE AIRLINE DEREGULATION EVOLUTION CONTINUES, The Southwest Effect.

that plan, and the disposition to comply with federal and states laws. Applicants are scrutinized thoroughly, and each year approximately one-third of the companies that seek an air carrier license do not receive it because they cannot meet these standards.

Study Focus:

This study concentrates on new entry by airlines with low cost operating strategies. This, of course, is not the only strategy to pursue and other concepts have proven successful. Midwest Express, which does not rely primarily on discount pricing, is a good example of a contrasting business plan that has worked well.

But low cost strategies have been the most successful in competing with network carriers whose very size confers certain competitive advantages. We have focused on low cost, low fare new entrants because of the significant competitive pressures they are exerting on incumbent carriers, including at major hubs where they are effectively disciplining fare levels previously kept high by incumbent market power, and because we are hearing an increasing number of complaints and concerns regarding actions of incumbents that are perceived by new entrants to be directed to excluding low cost entrants from entering markets or hampering their ability to survive in those markets.

Therefore, the purposes of this study are to report in detail on the very rapid growth and competitive successes of low cost carriers, the resulting consumer benefits, to identify where low cost service has not yet succeeded and the higher prices consumers are paying there as a result, and to reaffirm the Department's resolve that new entrants be given a fair chance to compete and underscore the Department's determination to examine why low cost new entry is more successful at some cities than others.

The data contained in this study provide insights about the traffic stimulation effects and related potential economic effects on various airline constituencies of low cost service, and implications for continued industry restructuring.

Low Cost New Entry:

Background:

A large number of new airlines attempted to break into the airline industry immediately following domestic deregulation, but virtually all eventually met with failure or were acquired. What followed was a period dominated by large network carriers, dominance that appeared impenetrable until Southwest Airlines altered the landscape of domestic airline travel.

During this period the industry experienced extensive consolidation as carriers merged or were acquired in the process of creating geographically broad hub-and-spoke network systems. This consolidation was not offset significantly by new entrant activity. Indeed, we saw virtually no new entrants for a period of several years.

One consequence of this was concern by some industry observers that a small number of network airlines, perhaps as few as three, were so dominant that domestic competition was threatened. Although for some time contrary evidence had existed, in the form of Southwest Airlines, the fact that for years this carrier alone came forward to successfully challenge the large network airlines was itself a source of some concern.

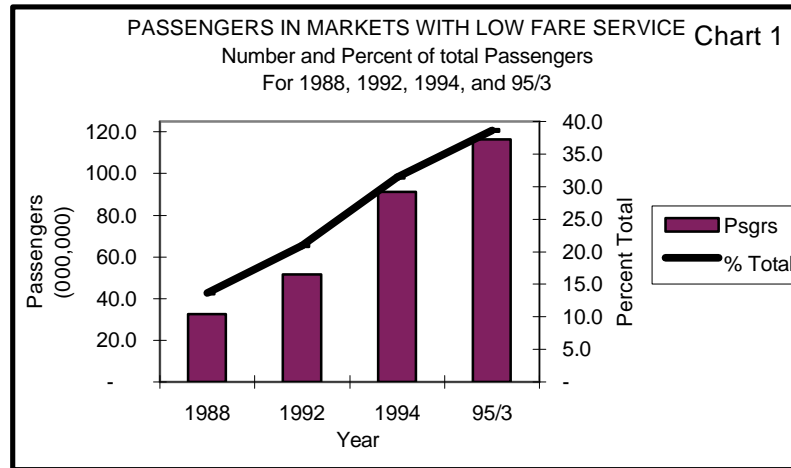
Growth in Low Cost Service:

This concern began to dissipate as an understanding developed of the extent of the impact that Southwest alone was having on the domestic industry. Even before new entrant activity picked up, it became clear that a handful of network carriers would not dominate competition domestically. By the end of 1992 Southwest was still the only low cost carrier of note, but it had expanded to the point that the markets it competed in accounted for 21 percent of domestic passenger traffic, compared with 13.7 percent four years earlier. And Southwest's very low operating costs and success wherever it operated left no doubt about its ability to continue to be competitive.

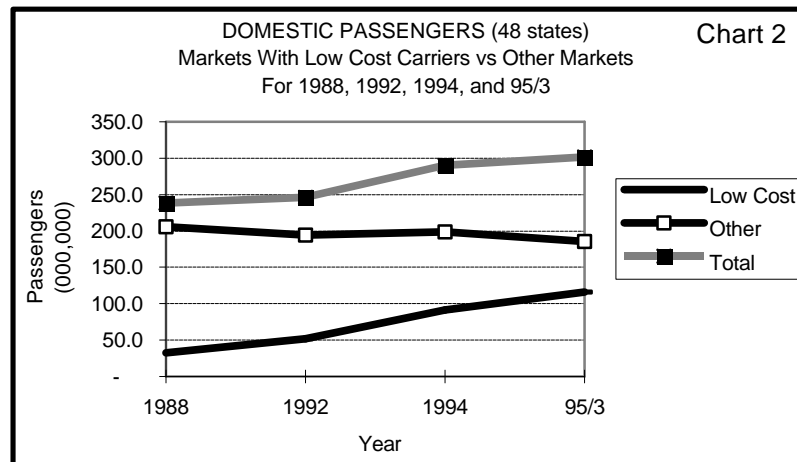
As it turns out, in addition to its own direct competitive effects, Southwest had another important effect. It provided a blueprint for successfully competing with large network carriers. The linchpin to this success is low costs. While a number of new entrant carriers today have differing business concepts, many of the more successful have one thing in common that allows them to compete effectively. This common dominator is very low operating costs.

Since early 1993 numerous other low cost carriers began service. These carriers are expanding rapidly in number and in size. By 1994, Southwest and several low cost new entrant carriers competed in markets that accounted for 31.5 percent of domestic

traffic.² Only nine months later, the year ended September 30, 1995, passengers traveling in markets with low cost service accounted for 38.6 percent of total traffic. This accelerating growth rate shows no signs of slowing down. (Chart 1)



The dramatic relative growth of passengers traveling in markets with low cost service does not begin to measure the full impact of low cost service, which includes both strong growth in the absolute number of passengers in low cost markets, and a decline in the absolute number of passengers traveling in markets where low cost service is not available. Indeed, the strong growth of passengers in low cost markets has resulted in an increase in total passengers despite a decline in the number of passengers in other markets. (Chart 2)



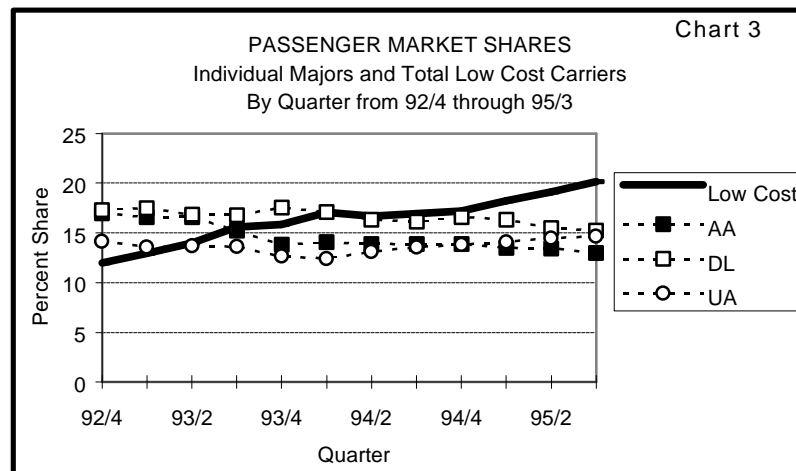
The decline in the number of passengers that travel in markets without low cost service is just one of several indicators that the domestic industry is under increasing competitive pressures from low cost airlines.

² See Attachment 1 for a detailed description of, and selection process for, the carriers we have considered low cost, low fare carriers in this study.

New Carriers:

Although Southwest Airlines continues to be the preeminent low cost airline, it is significant that successful low cost service is no longer limited to Southwest. Salt Lake City, for example, initially received low cost service from Morris Air whose low fares were continued by Southwest after it acquired Morris. ValuJet, which has been expanding already extensive operations at Atlanta, is now increasing services at Washington Dulles Airport, and has announced other focus cities. Several other low cost new entrant carriers that began service in late 1994 or 1995 are now affecting price in an increasing number of markets, and a constant stream of new entrant applications are winding through the Department's fitness process.

While all except Southwest are very small when measured as a percent of total industry traffic, their services tend to be very focused and, as a consequence, have a dramatic effect on price in city-pair markets where they compete.³ As a group, these airlines carry more domestic passengers than even the largest network airline and are growing very rapidly. (Chart 3)



Market Expansion:

Another important development is that the low cost market niche is expanding. Southwest has tended to focus heavily in dense (after low fare stimulation), very short haul markets. Southwest, to some extent, and other low cost carriers to a greater extent, are now expanding into longer distance, less dense markets. This is an interesting area of confrontation between established network carriers and low cost carriers as the market is in the process of determining which type of operation can most efficiently serve markets with differing characteristics. This process will take time, but

³ See Attachment 2 for examples of where these carriers serve, their participation, and effects on price and traffic.

the successful expansion to date by low cost operators puts greater pressure on network airlines to find a competitive response.

Chart 4 illustrates that low cost services are penetrating markets of all distances except for those over 2000 miles. In 1988 passengers in low fare markets accounted for 20% or more of total traffic only in markets up to 500 miles in distance. Now, they account for 25% or more of total passengers in all mileage blocks up to 2000 miles.

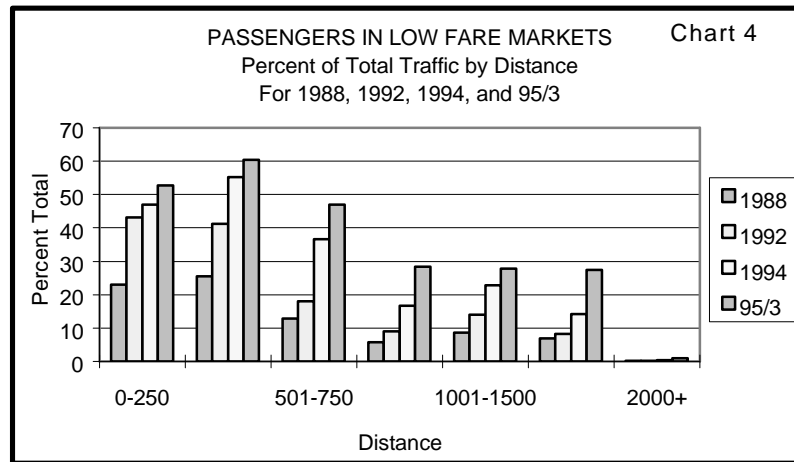
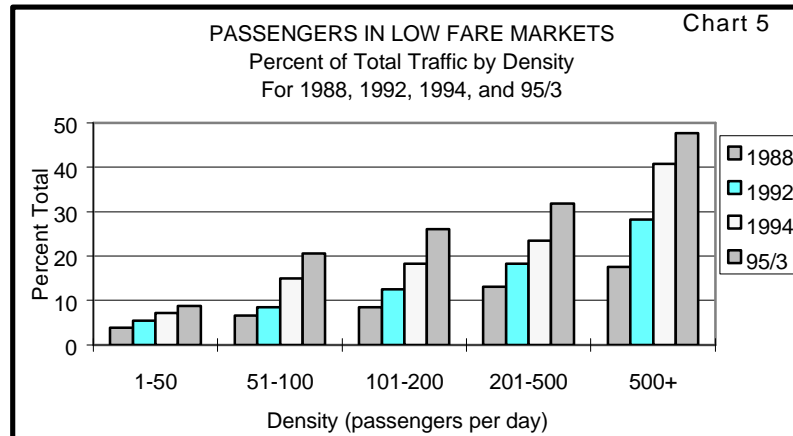


Chart 5 similarly illustrates the expansion of low cost service into less dense markets. In 1988 passengers in low cost markets accounted for 15% or more of total traffic only in markets with 500 or more passengers per day. Now, they account for 20% or more of total passengers in market densities as low as 51 to 100 passengers per day. In tandem, these two charts show that low cost service is having a major impact except in very thin markets and in the longest distance markets.

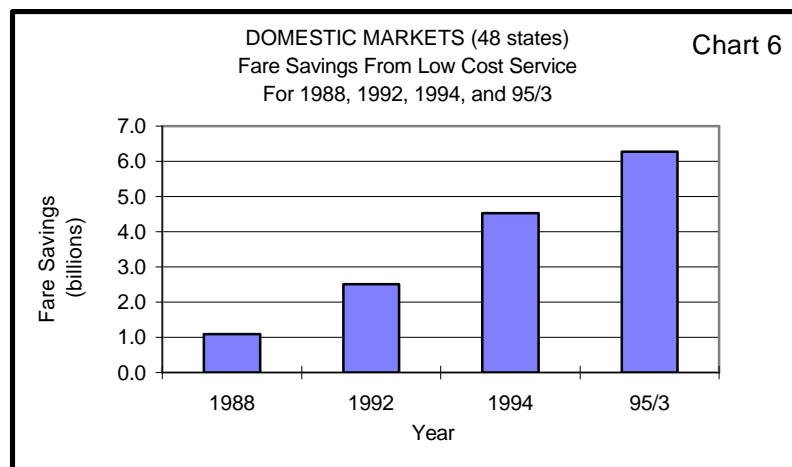


Fare Effects:

The real impetus behind the growth of low cost carriers and why their growth has such a competitive effect and provides major benefits for consumers is the level of fares they charge relative to other carriers. Their costs are so low that they can charge much lower prices than other carriers for most passengers. In markets that do not involve a dominated network hub, comparing average fares for all carriers in markets that have low cost service with markets that do not show low cost carrier presence results in average fare savings of \$46 per passenger, or 35 percent.⁴ In markets that do involve dominated network hubs, low cost service results in average one way fare savings of \$70 per passenger, or 40 percent. And these are overall averages for passengers on all carriers. Average fares for low cost carriers are significantly lower still.

Consumer Effects:

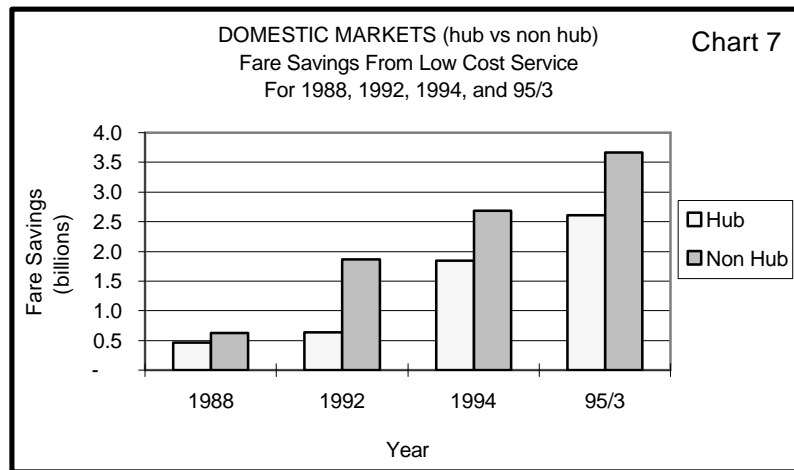
Fare differences of this magnitude combined with the very large number of passengers that now travel in markets with low cost service mean that consumer savings are very large. Three facts about this consumer savings are important to note. First, these savings are growing at an increasing rate. As illustrated in Chart 6, the growth in savings between 1992 and 1994 exceeded that for the previous four years, and this growth is nearly matched during the next nine months, or for the year ended September 30, 1995.



The second important fact, is that much of the growth in consumer savings is occurring at concentrated network hubs where, as will be discussed later, hub dominant carriers have historically charged significant fare premiums. Chart 7 shows that

⁴ To calculate fare savings we isolated data for markets in which a low cost carrier had a 10 percent or greater market share, and compared the average prices paid by all passengers in such markets with average prices paid by all passengers in other markets. In comparing prices in these two sub groups of markets we adjusted for differences in average distance and density.

between 1988 and 1992, most of the growth in consumer savings was in non-hub markets, but that hub savings have outpaced non-hub savings since.



The fare savings calculations in Charts 6 and 7 are set forth in Attachment 3.

Traffic Effects:

The third fact is that substantially lower fares result in remarkable traffic increases. We have examined the effect on traffic of low fare service in two ways. First, Table 1 below compares changes in traffic and revenue for the third quarters of 1992 and 1995. We used quarterly comparisons because, due to the very rapid increase in new entrant activity, annual comparisons would dilute this impact. We used the third quarter of 1995 because it is the most recent data available, and we used the comparable quarter in 1992 as the comparison period because that preceded the entry of several new low cost carriers beginning in early 1993.

We reviewed data for all city pair markets for which 700 or more sample passengers annually were reported in 1992 and 1995, and grouped these markets into three categories:

- o Markets that had no low cost service in either period,
- o Markets that had low cost service in both periods, and
- o Markets without low cost service in 1992 but with low cost service in 1995.

Markets were considered to have a low cost service if at least one low cost carrier had 10 percent or more of total traffic. We considered Southwest as the only low cost carrier in 1992, and considered the following carriers for the third quarter of 1995--Air South, American Trans Air, Frontier, Reno Air, Southwest, Spirit, ValuJet, Vanguard, and Western Pacific.

Market Type	Passengers and Revenue	3rd Qtr 95	3rd Qtr 92	Percent Change
No low cost service in either period:	Psgrs	46,149,260	43,953,880	5.0
	Rev (000)	8,311,485	6,536,548	27.2
Low cost service in both periods:	Psgrs	15,088,450	13,074,240	15.4
	Rev (000)	1,260,132	1,000,654	25.9
Low cost service in 95 but not in 92	Psgrs	15,647,390	9,040,240	73.0
	Rev (000)	1,722,563	1,215,104	41.8

These data show very dramatic differences in changes in traffic and revenue for the three groupings of markets. We note that the 5 percent growth shown in the first group of markets, those without low cost service in either period, is clearly overstated due to the “halo” effect of low cost service, or the fact that low cost service affects price and traffic at nearby airports. Obvious examples of this involve Oakland and San Francisco, where Southwest serves some cities from one of these airports but not the other, yet Southwest’s presence at either clearly affects price and traffic at both. Salt Lake City is a good example of this. Southwest serves Salt Lake City - Oakland and not Salt Lake City - San Francisco, yet between the third quarters of 1992 and 1995 Southwest’s presence in the former market caused average prices to drop 43 percent and traffic to more than double in the latter market. Numerous such examples of the “halo” effect exist all across the country. Indeed, it seems likely that were we to adjust for all “halo” effects, traffic in the first group of markets would show little or no growth between 1992 and 1995. This is another way of saying that virtually all domestic traffic growth between 1992 and 1995 is attributable to the influx of low cost service.

But even without such an adjustment the data are striking. Significantly, in comparing data for markets that did not experience low cost entry with data for markets that did, not only was the change in traffic substantially different, revenue increased more in those markets as well. This supports our belief that low cost carriers to a great extent reach a different market than the network airlines. And this information runs counter to the claim by some that the domestic market has matured. Clearly the size of the domestic market can be expected to continue to grow with the spread of low cost service.

In Attachment 4, we estimate the number of passengers that now travel as a result of low cost service is 47 million annually, or one out of every seven domestic passengers.

We also examined the traffic effects of low cost service by reviewing the results at Delta’s hub at Salt Lake City. We selected this example because of the way low cost service evolved there; from no low cost service in 1992 to a major influx of low cost service over a short period of time beginning in early 1993, by Morris Air, and continued by Southwest after it acquired Morris Air. We divided all Salt Lake City markets into two groups; those with and those without low cost service as of the third quarter of 1995, and then observed earlier data for each of these groups of markets, by quarter, back to the first quarter of 1992.

Chart 8 shows that in low cost markets traffic more than tripled, or an increase of about one million passengers per quarter compared with a much smaller increase in the other Salt Lake City markets. The net result is that while the traffic levels in both sets of markets were virtually identical in 1992, by 1995, traffic in the low cost markets was 2 to 3 times greater than traffic in other Salt Lake City markets.

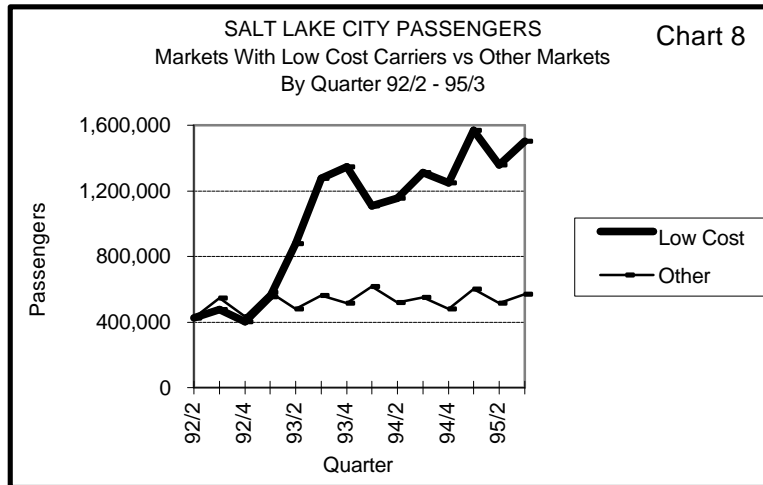
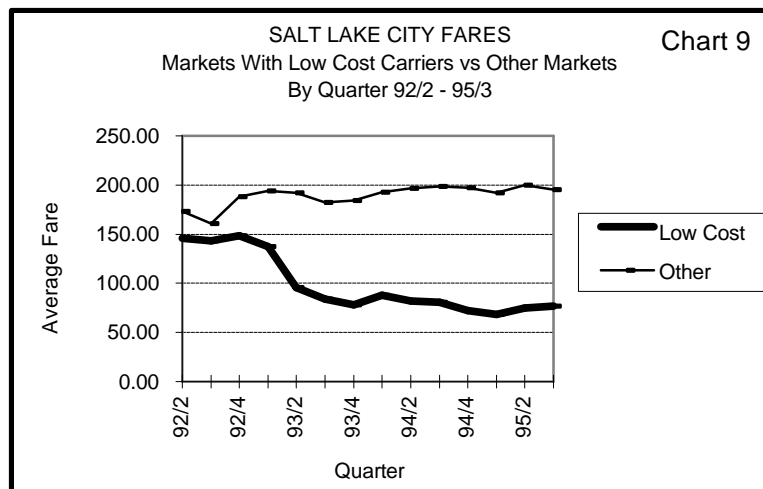
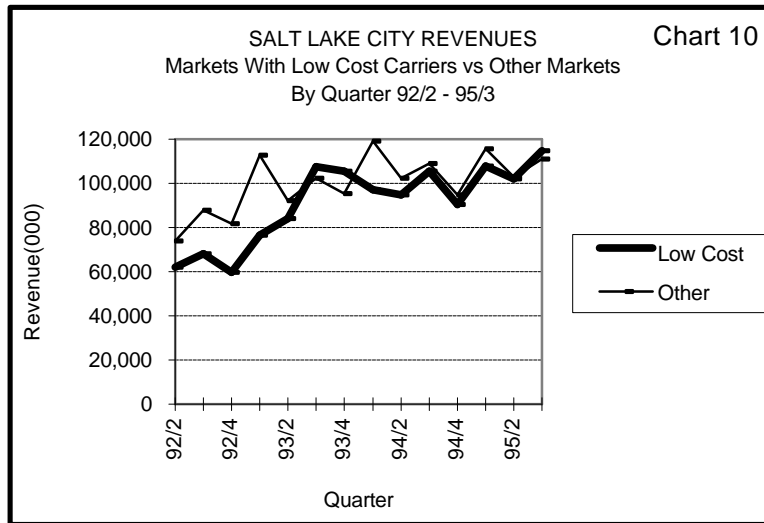


Chart 9 shows why. In low cost markets average fares have dropped by about half compared with a modest increase in average fares in other markets. The result is that while average fares in low cost markets were only slightly lower in early 1992, they are now about one third the level of fares in other markets.



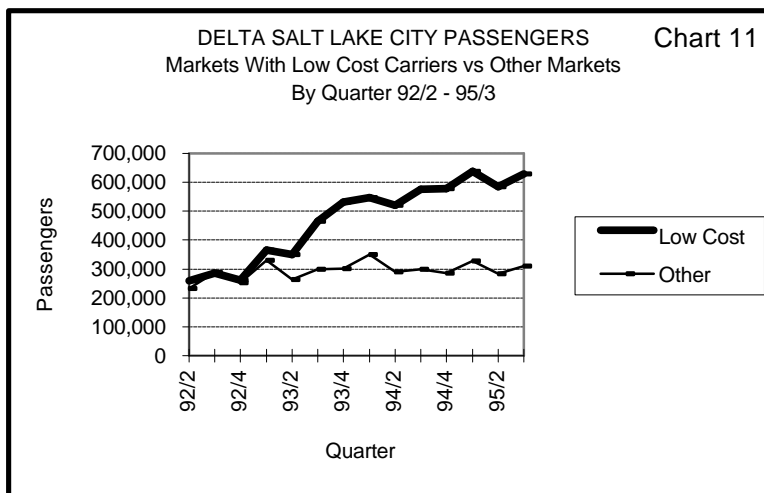
Also significant is the fact that low fare traffic growth did not cause a loss of revenue. Chart 10 shows that not only did revenue grow in both market groups, revenue grew faster in the low cost group.⁵



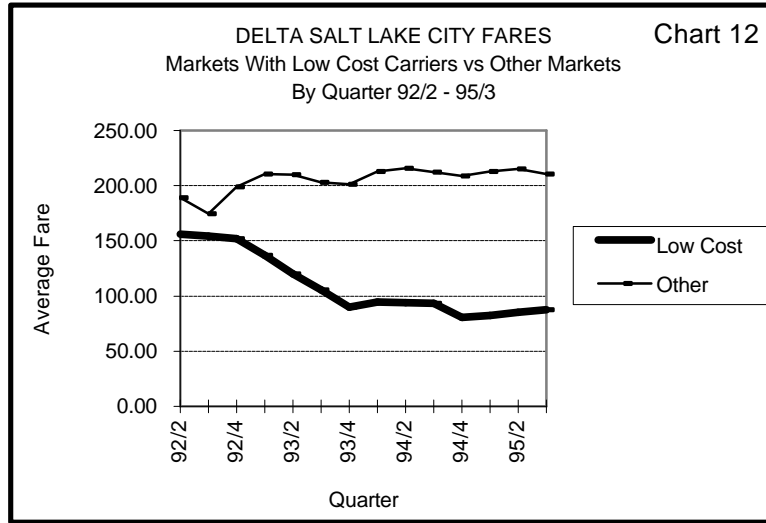
Competitive Strategies and Responses:

Information that illustrates the different competitive strategies of low cost carriers and incumbent responses suggests that low cost service will continue to expand and force still more extensive responses by network carriers.

This can be illustrated by reviewing the results of low cost entry at two Delta hubs and Delta's reactions. Charts 11 and 12 show the overall consequences of Morris Air/Southwest's entry into the Salt Lake City hub, in terms of the effects on Delta's traffic, average fares, and total revenue.

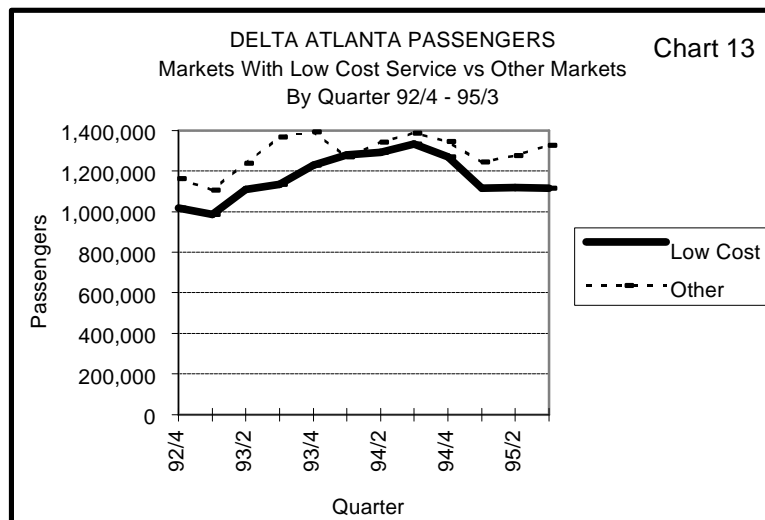


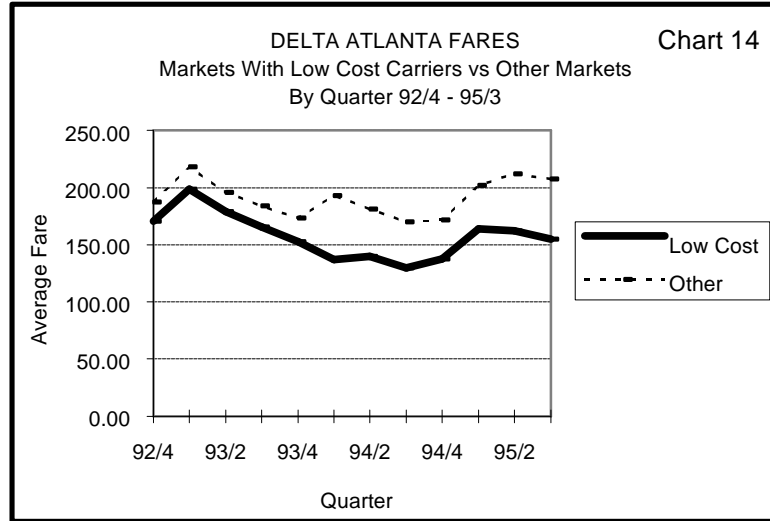
⁵ We have not attempted to evaluate the effect on profitability, which would involve analysis of capacity, load factor, flow revenue, and unit cost effects of the market expansion.



These charts show that Delta’s reaction to low cost competition has contributed to the overall impressive traffic and fare results at Salt Lake City. Delta’s traffic level in low cost markets is two to three times greater due to very steep reductions in its average prices.

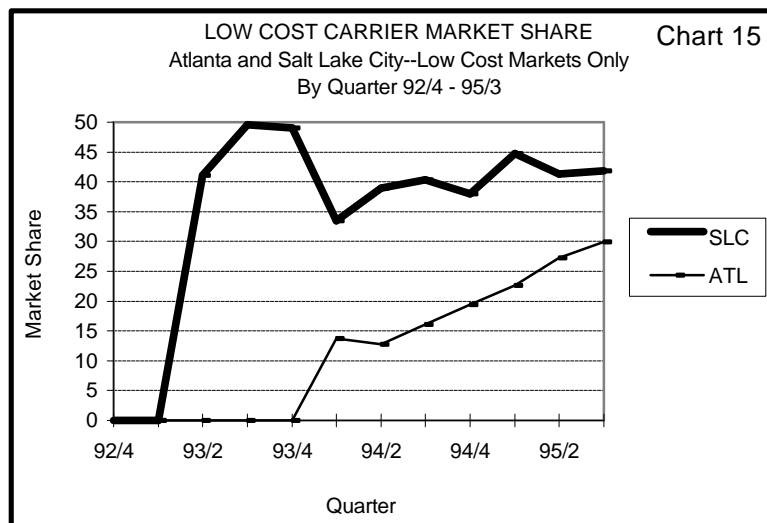
The same charts for the Atlanta hub reveal similar tendencies, but marked differences in degree. Chart 13 shows that in Atlanta markets Delta’s traffic growth in low cost markets is not much different than its growth in other markets, compared with strong growth at Salt Lake City. Chart 14 shows that Delta’s average fares are down more in low cost markets than in other markets at Atlanta, but the reductions are not nearly as pronounced as at Salt Lake City.





Delta’s different reactions at its two hubs is noteworthy. At Salt Lake City, Morris Air/Southwest’s strong challenge forced a strong response by Delta, whose fares dropped sharply producing strong traffic growth. At Atlanta, on the other hand, Delta’s average fares have changed more modestly relative to the fares charged in its other Atlanta markets and has not had as much effect on its traffic. The net result of Delta’s competitive reaction at Atlanta is that, overall, low cost entry there has not had nearly as much effect as at Salt Lake City. Low cost entry at Atlanta has provided a wonderful alternative opportunity for consumers, but has had less effect on the incumbent carrier.

Part of the explanation is that ValuJet’s penetration at Atlanta has not yet reached the level of Southwest’s at Salt Lake City. But this is an oversimplification because even in markets where low cost service competes at Atlanta, its market share is much less than at Salt Lake City. Chart 15 shows that at Salt Lake City Morris Air/Southwest quickly gained a very large share of the markets they competed in, while low cost carriers at Atlanta, principally ValuJet, have achieved a much lower market share in the markets in which they compete with Delta.



This has implications for the airline industry and consumers. Some observers say that low cost carriers are running out of markets to enter. Based on the trends we are seeing, including low cost entry into less dense, longer distance markets, and the fact that density increases greatly with low cost entry, we believe that there are far more opportunities than is generally believed. But eventually, low cost carriers will be faced with a choice. As their systems expand, will they elect to overlap and compete with each other, or will they elect to increase their presence where they already operate? If they choose the latter, they will likely pressure incumbent network carriers to amplify their competitive responses such as Delta has at Salt Lake City, with very substantial consumer benefits.

Co-existence and Competition:

As will be discussed, both network operations and low cost point-to-point operations have important public benefits. Fortunately, all the evidence suggests that the two systems can co-exist.

First, during the recent past when low cost services have expanded so rapidly, the incumbent carriers have made profits, record profits in some cases. While this could change when the industry goes through another down cycle, the very fact that the industry has become even more competitive and efficient reduces the likelihood of down cycles, or at least should moderate the magnitude of such cycles. This is because the more competitive industry will not allow losses that occur during hard times to be so easily made up during good times, a new economic reality that management, labor, investors and manufacturers must all deal with.

Second, network carriers appear to have developed successful responses to the different low cost strategies. At Salt Lake City, where Southwest enters local markets with a major presence, Delta has maintained revenue by using significantly lower fares to build load factor. In low cost markets Delta's average load factor increased from 53 percent in 1992 to 67 percent for the year ended September 30, 1995, the most recent data available. In Atlanta markets, where ValuJet's entry has not been as intense, Delta has been able to compete without such drastic reductions in price relying upon size related advantages, such as frequent flyer programs, and also yield management to maintain higher fared passengers.

Third, low fare carriers' success relies on having such low costs that they can offer prices that incumbent carriers cannot match for large proportions of their capacity. What this means is that to a great extent low fare service attracts new passengers to the industry rather than simply diverting traffic from the network carriers. And network carriers still have advantages that enable them to compete at higher cost levels. They have an advantage in flow traffic, which allows them to shift capacity from local passengers to flow passengers in order to maintain adequate revenues, and they typically have advantages in frequent flyer programs and travel agent commission overrides. Thus, while network carriers probably can never match the lower unit costs

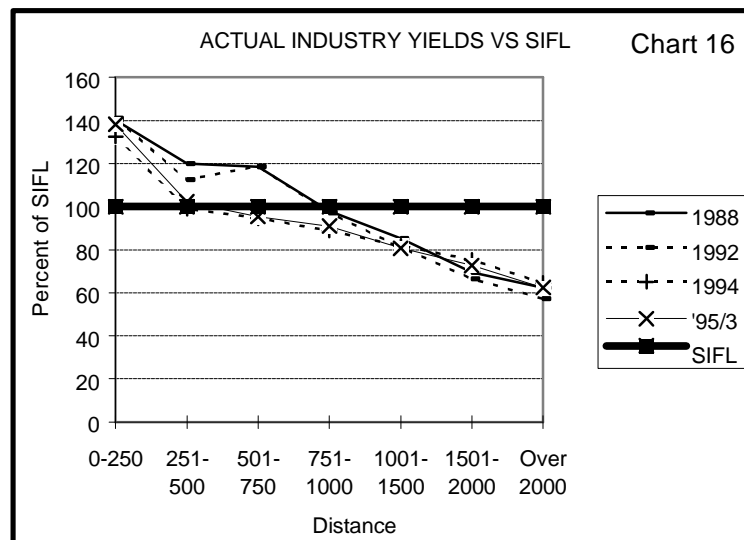
of the point-to-point operators, they do not have to. Rather, they have to narrow cost differences to the point that their competitive advantages on the revenue side provide a competitive equilibrium.

Each system being able to take advantage of its strength produces the ideal result from a public policy standpoint. Low cost carriers provide local passengers the benefit of additional service and lower prices, while the network carriers, by continuing to link the spoke city with its network, provide local passengers who prefer to use the network carrier's service and connecting passengers who wish to travel beyond the hub city in other city-pair markets additional, competitive alternatives.

Structural Effects:

A useful benchmark for evaluating changes in the industry's pricing structure is the Standard Industry Fare Level (SIFL). The SIFL, in effect, was the lowest unrestricted coach fare in each market as of July 1, 1977, and has been updated since, semiannually, to reflect changes in industry operating costs.⁶ A SIFL line is included in the series of charts in this section to enable a comparison not only of how actual fare levels have changed from period to period, but also how they have changed relative to changes in costs.

The data show that low cost service is having a major impact on industry fare structure. As we suggested would be the case in *The Southwest Effect*, short haul fares have decreased significantly during the past three years, and long haul fares are up. This is illustrated in Chart 16.



⁶ The 1977 coach fares were "cost related" but not precisely cost based, as fares in markets over 400 miles distance were set at levels 2 to 4 percent above costs and fares in markets below too miles distance were set at levels as much as 22.5 percent above costs at the shortest distances and gradually increasing to the cost line at 400 miles.

As shown in Chart 16, between 1988 and 1992, the effect on average prices in short haul markets was mixed, but average prices in longer haul markets were consistently down. Between 1992 and 1994, average prices in markets up to 1,000 miles decreased significantly and prices in longer distance markets increased. Between 1994 and the year ended September 1995, this trend reversed to some extent as prices in short haul markets increased and prices in longer haul markets decreased. Thus, the industry is still in a period of competitive uncertainty as evidenced by the continuing shifts in the overall price structure. This, we believe, primarily reflects the continuing competitive struggle between the network and low cost systems, which is likely to continue for a period of years.

Chart 17 suggests that in markets where low cost carriers do not compete the industry significantly increased prices in short haul markets between calendar year 1994 and the year ended September 1995, but it is unclear whether this is a planned effort to take advantage of the absence of low cost carriers, or perhaps reflects the dismantling of Continental's point-to-point low cost service experiment (CaLite), which could have been part of the reason why 1994 fares were lower than 1992 fares in short distance markets.

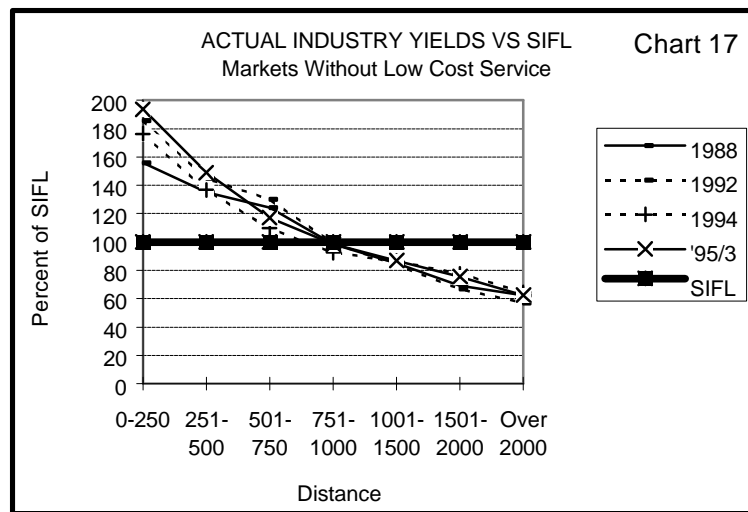
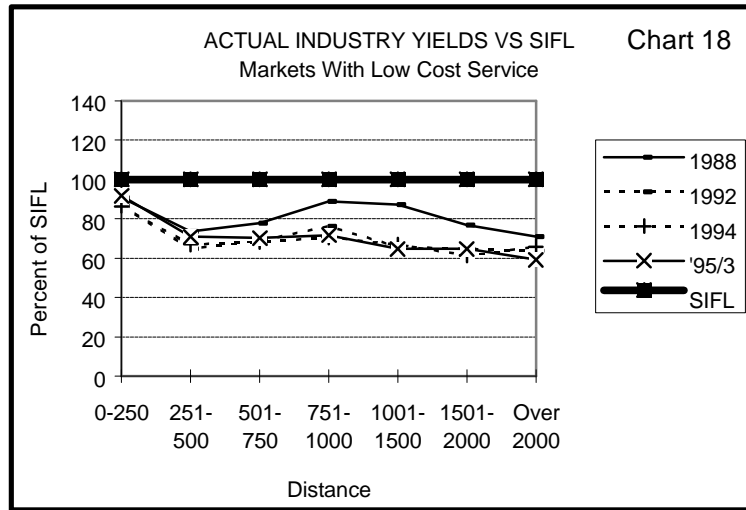
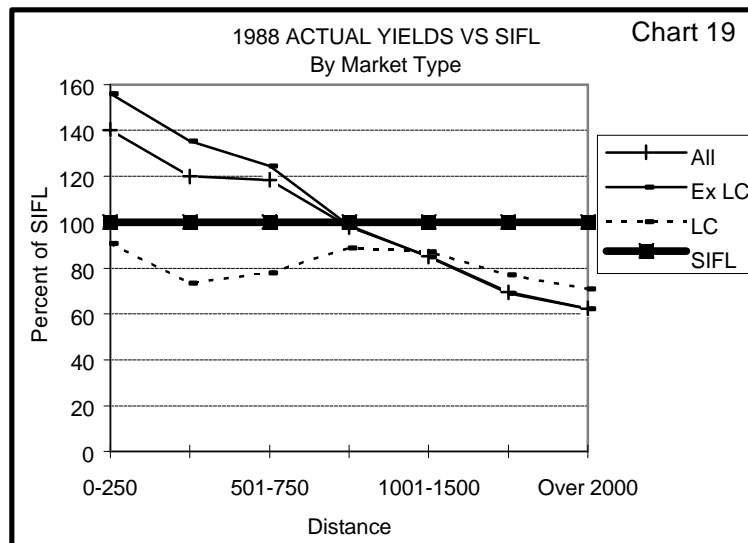
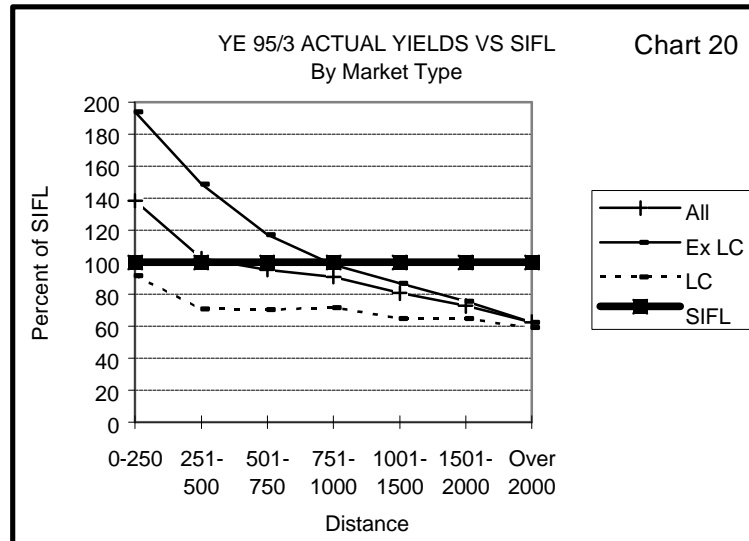


Chart 18 suggests little structural change during the last three years in markets that have low cost service, but points out the competitive challenge for large network carriers posed by low cost carriers. Specifically, the average fares for most distances are 30 to 40 percent below the SIFL, our proxy for costs. While the industry cost structure likely has changed considerably in the past 20 years, it seems unlikely that the SIFL significantly understates large network carriers' costs, particularly since the cost updates include costs of low cost operators.



Charts 19 and 20 reveal several important structural effects. These charts compare with the SIFL average prices in markets that have low cost service, markets that do not, and overall average prices for 1988 and the year ended September 1995.





Each of these charts suggest two separate pricing structures, one for low cost markets and one for other markets, but there are notable differences. One difference is that the overall average prices were much closer to average prices in the “high” cost markets in 1988 than in for the current period. This is due to the much lower market share of low cost carriers in 1988 (Southwest was the only low cost carrier then).

Another difference is that the dual fare structure (widely different “low” cost fares and “high” cost fares) now extends to the 1,500 to 2,000 mile distance block. In 1988 this was basically limited to less than 750 miles. (The higher fares indicated for longer distances for low cost carriers are misleading since the low cost carrier then, Southwest, did not really compete in those markets and carried virtually no traffic in them. Note that in 1988 the “high” cost market and total market lines are virtually identical above 750 miles.) The developing low cost structure in markets of more than 750 miles distance is consistent with the data in Chart 4.

Perhaps the most significant difference between 1988 and 1995/3 in Charts 19 and 20 is that in 1988 the “fare” line crossed the SIFL line in the 750 to 1,000 mile distance block. Now those lines cross in the 250-500 mile distance block. Thus, today, the “industry” fare line is mostly below the SIFL which highlights the competitive problem faced by network carriers. “Industry” yields are above SIFL only in the very short distance markets, where the SIFL level probably is still well below actual costs. Thus, at current cost levels this creates pressures for network carriers to keep prices higher where low cost carriers do not compete, yet those markets account for a shrinking number of passengers (Chart 2), and high fares there simply make it more attractive for low cost carriers to expand in those markets.

Thus, we are seeing what amounts to multiple pricing structures. One extreme is markets where low cost entry is not evident, and the other extreme is the pricing

structure of low cost carriers in markets where they have successfully entered. In between these extremes are network carrier pricing structures in low cost markets. As indicated earlier, they can be closer to the low cost carrier pricing structure, such as at Salt Lake City where the low cost strategy is intense penetration in local markets, or closer to the network carrier pricing structure, such as at Atlanta, where the low cost carrier penetration is not as intense. Over time, it remains to be seen whether in essence two structures will materialize--one structure for both network carriers and low cost carriers in low cost markets, and a separate structure in other markets--or whether multiple structures will continue as a result of network carriers forfeiting more of the low fare market to low cost carriers and focusing their own efforts on higher fared traffic.

The answer may hinge on how much network carriers can reduce their costs. We have seen evidence of an elastic response to large fare reductions, but this may not be feasible for network carriers at existing cost levels. For example, we show in Charts 11 and 12 that Delta's vigorous response to Morris Air/Southwest has resulted in large fare reductions and strong traffic growth for Delta. And Delta's revenue increased, suggesting an elastic market. But Delta's ability to pursue that strategy may be limited because it appears to have accommodated the new demand on existing capacity as it increased its average load factors in those markets from 53 percent in 1992, before Morris Air, to 67 percent based on the most current data. If traffic continues to grow in those markets in response to low prices, for Delta to continue to increase its participation it would soon have to add capacity, which may not be economic unless it can continue to reduce its unit operating costs.

We also cannot rule out new competitive strategies that are not now apparent. One thing we have learned in the deregulated environment is to expect the unexpected, and we are loath to assume that the eventual industry structure will evolve purely from some mixture of current competitive strategies.

Indeed, one element of competition is that competitive circumstances are constantly changing. We must not only be aware of that, but we must also keep sufficiently abreast of what is happening in the industry so that we can anticipate changes that have important policy implications. For example, while we now know that low cost carriers are having a major competitive effect domestically, it was important that Department policy makers were aware of this development early on, before it became a widely accepted phenomenon. In the past the Department strongly resisted a number of proposals to in some fashion regulate domestic hub dominance partly because we knew that low cost service was spreading domestically and addressing the competitive problem that had developed at dominated hubs. We believe that leaving the industry with the incentive to find competitive alternatives to network carrier hub dominance was far preferable to limiting the competitive strength of network carriers, which would have simply resulted in a less efficient industry.

And internationally, competitive circumstances have changed just as dramatically in recent years. It was not that long ago, that international competition was effective primarily in a relatively few gate-to-gate markets. But as our network carriers expanded into the international arena, the competition at interior U.S. cities intensified, and provided our industry with a competitive advantage over foreign airlines that still had to compete in such markets on an interline basis. They eventually responded by developing their own hub networks, and gained a similar competitive advantage in their feed markets. The formation of multinational alliances as a means of providing improved, competitive service to thousands of markets that single national airline networks could not reach was inevitable. Acknowledging this economic reality is the cornerstone of our International Transportation Policy. But as this process unfolds, it is imperative that we make every effort to understand it so that we continue to make informed policy choices.

So we will continue to monitor operating and competitive strategies, and results, in both domestic and international markets.

Market Place Consequences.

As the above discussion suggests, one important fact about the growth of low cost service is that it is spreading to all areas of the country, with rather obvious implications for consumers and airline competitors. Consumers in all areas of the country can anticipate the benefits of low cost service. And airline competitors have no safe havens. All network airlines are having to deal with this new form of competition which for years was limited to the southwest part of the country. One important implication of this is that it is more and more necessary for network carriers to respond, and at the same time, more and more difficult either to target that response, or to keep trying to do all the same things more efficiently. A more fundamental, more broad response may be required, such as Continental's CaLite experiment, which failed, United's ongoing Shuttle response in California markets, and Delta's announced low cost service, unless network carriers simply elect to forfeit a very large share of the domestic market to low cost carriers.

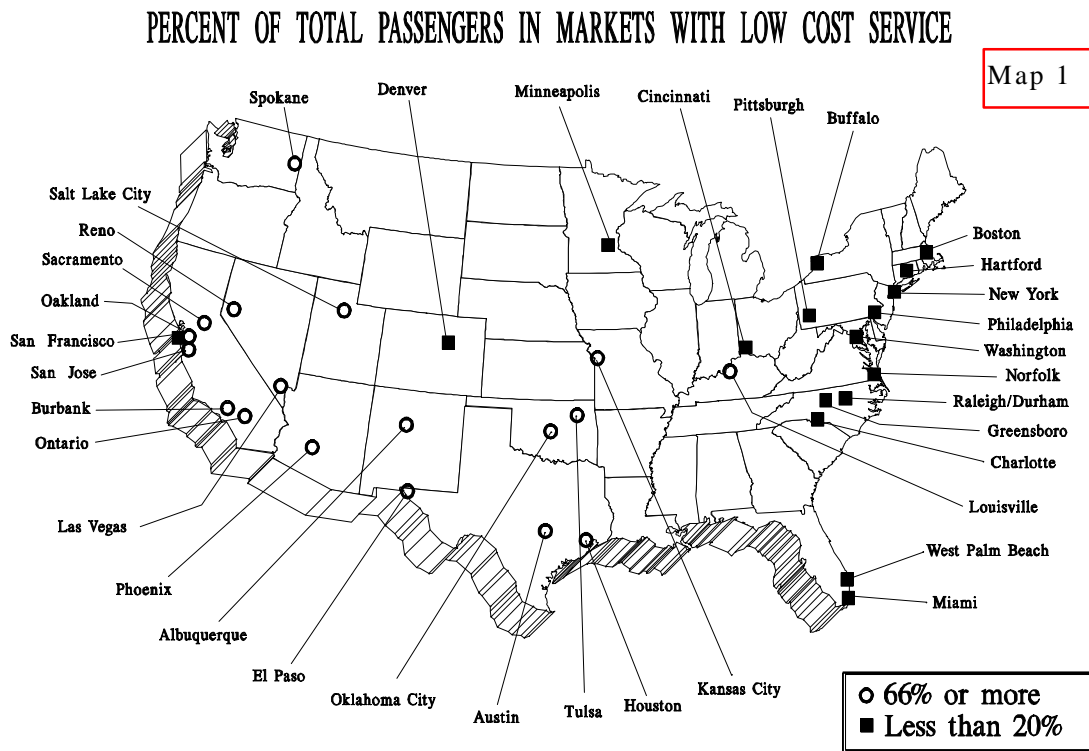
An analysis of each large and medium hub (FAA hub classification), 60 cities in all, shows that all but 7 have low cost service, and for most, a substantial proportion of total traffic is in markets with low cost service.⁷ Indeed, at these 60 cities, the proportion of passengers in low cost markets is two thirds or more at 19 cities, 50 percent or more at 26 cities, and one third or more at 38 of the 60 cities. And while the greatest effect is in cities located from the southwest to California, where virtually all large and medium hub cities benefit greatly from low cost service, such service has spread to the Pacific Northwest, and the northeast and midwest where cities like Baltimore (41.7% of passengers in low cost markets), Chicago (52%), Cleveland (37.4%), Columbus (37.6%) and Indianapolis (50.1%) are benefiting from low cost service.

⁷ These cities account for 83 percent of total domestic traffic.

One reason for the spread of low cost service is that new entrants tend to stake out new territory when they start service. ValuJet, for example, started at Atlanta, focusing on markets in the southeast, where Southwest Airlines did not operate. But these low cost carriers tend to expand rapidly, and move into each other's geographic areas, although as yet they tend not to compete to a great extent in the same city-pair markets. This will almost certainly change as new entrants' systems continue to expand.

Attachment 5 shows for each of the 60 large and medium FAA hubs low cost passengers as a percent of total passengers, and the overall average fare premium or discount (amount and percent) compared with industry average fares.

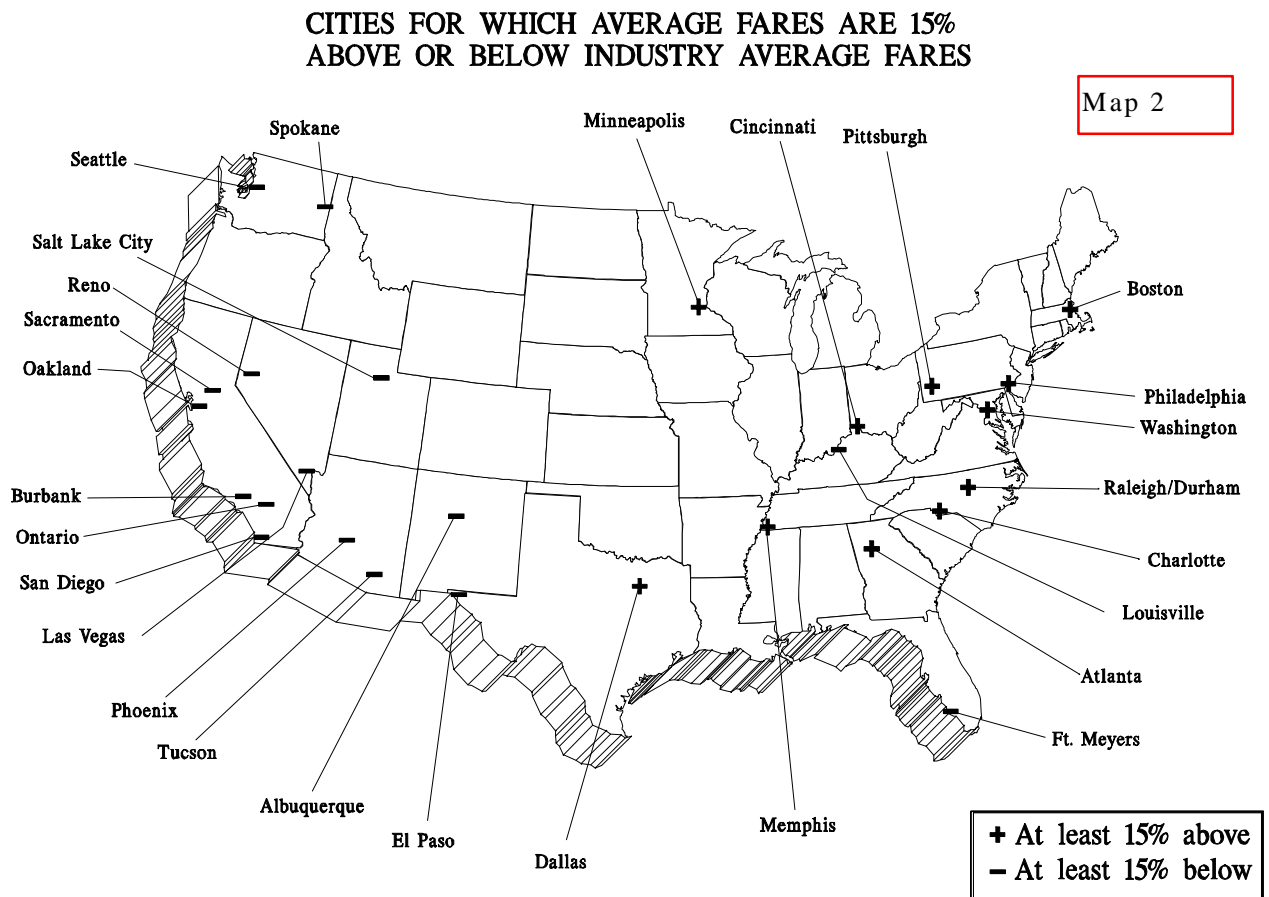
While Attachment 5 demonstrates that low cost service has penetrated all areas of the country, it also shows that the benefits of low cost service are by no means evenly distributed. This is illustrated in Map 1, which identifies city-pair markets with low cost service that account for either more than two thirds of total traffic, or less than 20 percent of total traffic. With the exception of Louisville, the former are all in the southwest and west, and with the exception of San Francisco, Denver and Minneapolis, the latter are all in the east.⁸



We have also compared average fares for city-pair markets that involve each of the 60 large and medium hubs to total domestic fares, adjusting for distance and density. Map

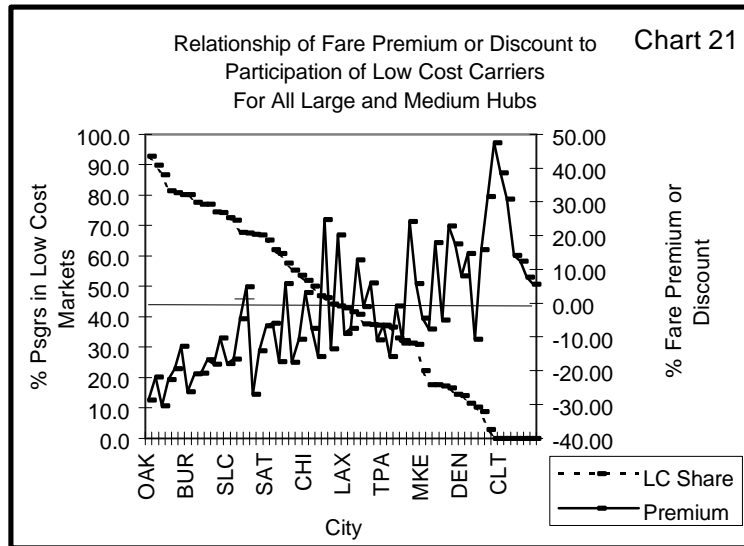
⁸ Of course, as we have previously discussed, Southwest's presence at Oakland is a competitive discipline for many San Francisco markets.

2 identifies those cities for which the average fare discount or premium exceeds 15 percent.



Again, we see a clear geographic dichotomy. Of the 16 cities with large discounts in excess of 15 percent, all but two are located in the southwest and west. Of the 11 cities with fare premiums in excess of 15 percent, all but two are in the east, and all but two are network hubs. Indeed, virtually all of the cities that show a fare premium are either network hubs or are located in the east.

Chart 21 shows the strong correlation that exists between the proportion of a city's total passengers that are traveling in markets with low cost service and fare premiums or discounts.



Clearly, there is considerable room for growth of low cost service in the eastern part of the U.S. and low cost carriers are now moving into this area.

All Network Carriers Are Affected:

The effects of low cost service are so widespread that it is clear that all network carriers, including the three largest carriers, are confronted with substantial low cost competition.

Based on Southwest's presence at Salt Lake City and ValuJet's presence at Atlanta it comes as no surprise that many of Delta's top markets have low cost competition. Indeed, in 42 of Delta's top 100 markets it faces competition by one of more of six of the low cost carriers included in this study and in 16 of those markets a low cost carrier out carries Delta. But American and United also have low cost competition in many of their own top 100 markets--35 for American and 36 for United, and in 20 American markets and 16 United markets a low cost carrier has a larger market share. As with Delta, each of these carriers face competition by one or more of six low cost carriers.

Market Power at Network Hubs:

Hub market power is a very important part of the story about low cost service, because hub dominant market power has been the significant public policy structural problem in the deregulated market. Indeed, every review of objective evidence--by the Department, The Brookings Institution, the Transportation Research Board of the National Research Council, the GAO and a host of independent studies--has concluded that overall the network dominated domestic system provides superior, competitive service. However, most studies also point out that market power exists in some short haul local markets at all concentrated network hub cities, and carriers that have market power exercise it in the form of higher prices.

The above discussion about where low cost service is working and where it is not working leaves us with both good news and bad news about market power at network hubs. The good news is that we now see that the low cost strategy can effectively compete with hub dominant carriers at their network hubs. Fare premiums have disappeared or at least fallen at several network hubs. But passengers continue to pay substantial fare premiums at most network hubs, particularly where low cost service has not succeeded. The Department will build upon its efforts in this study to learn why this is so.

A balanced perspective:

It is important that discussion and analysis of hub market power be undertaken in context. That is, it is not proper to focus on the down side of hubs without considering their positive aspects as well.

A network carrier has market power at its network hub city because of the frequent, well timed service it provides there, so much service that other carriers have difficulty competing. Being the service center of a network results in far more service for the hub city than it would otherwise enjoy. Comparing service at a city that is a hub network, before and after the network was developed, or with non hub cities of comparable populations shows that the differences are dramatic. Hub networks not only serve many more destinations nonstop, but also provide more frequency to virtually any destination. Indeed, in many instances high prices stemming from the exercise of market power are in markets that would not have had service at all but for the development of the hub. This is because flow traffic created by the existence of the network is necessary to economically sustain service to smaller cities. In other words, smaller markets with limited local traffic potential need traffic flows to and from a large number of connecting destinations to develop adequate traffic to support the service.

While the superior service afforded passengers traveling to and from network hubs is a counter-balance to the higher fares they often have to pay, it is desirable for passengers in such markets to also benefit from competition. Such passengers should not have to

choose between the benefits of a network (good service to a wide variety of destinations) and the low fares that are made available by low cost services.

The Source of Market Power:

Understanding the source of market power helps us to understand why the low cost carrier competitive response to that problem seems economically sound.

To understand market power at network hubs, it is important to think in terms of the two distinct types of traffic that use the hubs--local traffic, or passengers that are destined to or from the hub city, and connecting traffic, or passengers that are traversing the hub city as a means of traveling in a totally different O&D market.

A hub dominant carrier generally does not have market power over connecting passengers because the availability of service over its hub is just "another" service alternative, and is, therefore, procompetitive for most passengers that use it. Indeed, given the large number of connecting hubs in the U.S., most markets of intermediate- and longer-haul distances can be served over a number of connecting hub alternatives, and thus, are very competitive.

But this connecting traffic that flows over a network carrier's local segments to and from its hub city give it a competitive advantage over other carriers that operate in its local hub markets. Connecting traffic at hubs is always a substantial proportion of total traffic, typically more than the local traffic, and this flow traffic allows network carriers to operate more frequencies profitably than other carriers can. And studies have shown that a carrier with a frequency advantage in a market gains a disproportionate share of local traffic, which compounds the competitive problem for other carriers that compete at the network hub. When carriers with similar cost characteristics do not have access to the same traffic flows, they are unable to compete. The result is that in markets that involve a hub as an endpoint, the hub carriers have been so dominant that virtually no non-hub carrier service existed until the emergence of low cost, point-to-point carriers in recent years.

Not all local hub markets are equally affected by a network carrier's flow traffic advantage. Indeed, in markets of intermediate- and longer-haul distances, connecting services over still other hubs have disciplined prices for many passengers. But connecting services are not effective alternatives for shorter-distance markets. Generally, connecting services account for very little traffic in markets of less than 750 miles. It is this fact, combined with the ability of hubbing carriers to force out other network carrier competition, that led to market power in such local network hub markets.

However, the competitive dynamic has changed remarkably with the advent of low cost carriers. The reasons for this are twofold. First, the low cost carrier's lower cost tends to offset the flow traffic advantage of the network carrier. Second, the lower fares

charged by the low cost carriers significantly stimulates the local market, and the fares tend to be so low that the higher cost network carriers can economically sell only a portion of their seats at the new low fare levels. In essence, the network carriers often concede a large part of the newly stimulated local market to the low cost carrier because they cannot profitably charge fares that enable them to successfully compete for all such traffic. But whether the network carrier greatly reduces its price as Delta has at Salt Lake City, or does not, like Delta at Atlanta, consumers in local hub markets benefit from the availability of low fare service on the low cost entrants.

Trends in Market Power:

Although there was anecdotal evidence that concentrated hub markets were subjected to fare premiums since hubs were first conceived, the extent of this market power was not quantified until 1990, when Department staff completed a comprehensive study of domestic airline competition.⁹ In that study, we determined that, on average, passengers at eight single carrier concentrated hubs paid about 18.7 percent higher fares than other passengers traveling in other markets of similar distance and density.¹⁰ We also determined that most of such premiums were from dense, short-haul markets at those hubs. That study was based on data for calendar year 1988.

Three years later we updated our hub premium calculations based on calendar year 1991 data which showed that hub premiums had changed very little. The overall average for the same eight concentrated hubs was virtually the same, 19 percent, and the premiums for individual hubs had also changed very little. The data also indicated that hub premiums would have declined somewhat but for the fact that Southwest's low fare growth had driven down price in the non hub markets that hub market fares were compared with.

We have now updated our hub premium analysis based on data for calendar year 1994 and again for the year ended September 30, 1995.¹¹ We have also revised our definition of single carrier concentrated hub to exclude Dayton, where USAir no longer hubs (a former Piedmont hub), and added Atlanta, Denver, Detroit, and Houston. We now calculate fare premiums for 11 single carrier concentrated hubs.¹²

⁹ SECRETARY'S TASK FORCE ON COMPETITION IN THE U.S. DOMESTIC AIRLINE INDUSTRY, February, 1990.

¹⁰ Charlotte, Cincinnati, Dayton, Memphis, Minneapolis, Pittsburgh, Salt Lake City, and St. Louis.

¹¹ These fare premiums are different than those calculated above for the 60 cities that are considered large and medium hubs by FAA definition. The fare differences we calculated for each of those cities compared data for each city with overall industry data. The fare differences we calculate for concentrated hubs excludes the concentrated hub data from industry results. Thus, we are comparing average prices in concentrated hub markets to average prices in non hub markets which are comparable in terms of distance and density. We do not routinely adjust for type of market (discretionary versus business) or slot controlled airports, but we have previously determined that these adjustments would have little effect on overall calculated fare differences.

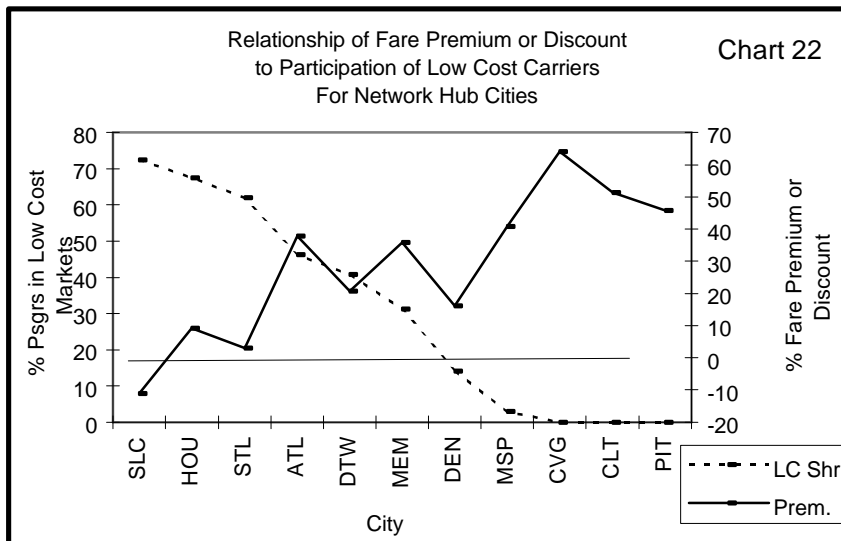
¹² Atlanta, Charlotte, Cincinnati, Denver, Detroit, Houston, Memphis, Minneapolis, Pittsburgh, Salt Lake City, and St. Louis.

Our analysis shows that the overall premium for the concentrated hubs as a group increased very little between 1988 and 1994, from 17.0 percent to 19.7 percent despite the very rapid growth in low cost service in non hub markets across the country (Attachment 6). This is a very positive sign, considering the downward pressures the growth in low cost service has had on prices in the comparison markets. But between calendar year 1994 and the year ended September 30, 1995, when low cost entry flourished, the concentrated hub premium increased again, almost as much as in the previous six years, to 22.1 percent.

This points to another very significant result of our analysis which is a cause for concern. As we would expect, the trends in premiums in individual network hub cities vary substantially, depending upon the degree of penetration of carriers operating low cost service. At St. Louis and Salt Lake City, both served extensively by Southwest, premiums in excess of 20 percent in 1988 have now almost disappeared at St. Louis, (3.0 percent) and have turned into an 11 percent discount at Salt Lake City. On the other hand, at cities where low cost service has not developed, the hub fare premiums show very large increases, as follows:

	<u>CY 1988</u>	<u>YE 95/3</u>
Charlotte	33.6%	51.3%
Cincinnati	44.9	64.2
Minneapolis	23.0	40.8
Pittsburgh	12.4	45.7

Chart 22 shows that hub cities without substantial low cost entry tend to be subjected to very high fare premiums compared with other hub cities.



This demonstrates both the ability of low cost service to discipline price at network hubs, and the necessity that it be allowed to do so.

Communities should consider not just the fare consequences for passengers traveling to and from the cities, but the potential economic consequences of low fare service. We have not attempted here to quantify the potential economic gains for communities, but the multiplier effect of 4 million new passengers a year at Salt Lake City, for example, is clearly enormous. And the traffic growth shown in Table 1 for markets with new low cost service compared with markets that do not benefit from such service is quite remarkable. While network carriers have provided passengers at their network hub cities excellent service, the Salt Lake City, St. Louis, and Houston examples show that this benefit does not have to come at the expense of high fares.

All this suggests that communities that have little or no service by low cost carriers should actively seek such service. To some extent, this is a marketing job, that is, selling themselves to low cost carriers, and they may well benefit from assistance by aviation consultants. And to some extent, this is a matter of insisting that incumbent carriers accept the reality of such service.

Allegations of Predatory Behavior:

Forces Behind Increased Allegations of Predatory Behavior:

As new entrants continue to emerge and expand, the growing tension between new entrant and established airlines is not an unexpected development given the reality that market share is an important competitive consideration.

The competitive tension is increased by the fact that the cost and operating structures of many new entrant airlines are so different from those of established network airlines that the new entrants are able to introduce unrestricted fares at levels far below what established network carriers have charged. (See Attachment 1) This can be very threatening to carriers with much higher cost structures.

And the competitive tension is further heightened by the economic reality that the stakes for the network carriers typically are much greater than the local markets the new entrants have entered. This is because new entry often occurs on spoke routes to network carriers' hub cities. The network carriers have to be concerned that the loss of local traffic and revenue could lead to service reductions that would ultimately result in the loss of flow traffic and revenue that supports their network operation overall. Indeed, we believe it likely that using traditional cost and revenue allocations would show that a large proportion of most networks' profitability comes from a relatively small number of spoke routes.

As a general proposition, the increased competitive tension between airlines is a healthy part of the deregulated process. Most carriers, in fact, seem to be responding with new strategies that are economically sound, although like new entrants, not all of the strategic responses will succeed. This process is sorting itself out in the

marketplace as it should, and the competitive interaction will in time determine which kind or kinds of service can more efficiently serve different markets.

Cause for Concern:

While there is reason to be encouraged by the progress low cost carriers have made in penetrating markets at some concentrated network hubs, and the fact that this new service makes economic sense, there remains cause for concern. As just demonstrated, some dominated network hubs have little or no low cost service and travelers at such cities are subjected to very high fare premiums. The high fares hub dominant carriers have enjoyed at their hub cities clearly provides the incentive for those carriers to discourage competitive entry. And allegations of predatory behavior have increased as a result of the recent emergence and growth of a number of low cost, low fare new entrant airlines. Given the incentives and the reality of very high prices for local passengers at certain network hubs, we have to be concerned about possible predatory behavior or unfair competitive practices.

The Department's Role:

The Department of Transportation has an important role in ensuring that low cost new entrants have a real opportunity to enter, compete, and succeed in the market based on the quality of their services and the value they offer to consumers. As Secretary Peña put it succinctly in April, 1993, "We will do whatever we can to make sure fledgling carriers have a fair shot."

The Department of Transportation should not and will not try to ensure the commercial success of new entrant airlines. Indeed, legitimate tough competition should be encouraged. Today, most network carriers face low cost competition at most of their principal network hubs, and their competitive responses range from adjusting existing systems (e.g., dehubbing weaker hubs, transferring selected routes to regional smaller-aircraft affiliates) to major strategic initiatives, like creating new low cost "airlines-within-airlines."

In contrast, we will not be indifferent to attempts to exclude or preclude new entry through predatory activity. As this study makes clear, the beneficial consumer impact of low cost new entry -- especially in disciplining fares and filling service voids -- is simply too important to permit predation to undermine it. Anticompetitive activity can take myriad forms, from sudden and targeted service increases and sharp and highly selective fare cuts, to hoarding unneeded gate space or slots, as well as other "doing business" problems. The Department will continue to evaluate which actions cross the line from tough competition to anticompetitive predation and react accordingly.

The Department has made clear over the last several years that it takes seriously predatory responses aimed at eliminating new entry. Since the first informal intervention in a complaint brought by Reno Air three years ago, the Department is

regularly called on to address these kinds of issues, and it has worked with the carriers to evaluate the merits of new entrant complaints and resolve them informally. Our finding that some network hubs lack low cost service and that local passengers at those hubs pay high fares leads us to reinforce our efforts to be sure that anticompetitive behavior is not at work. The Departmental approach includes the following:

First, we will continue to monitor and report annually on the progress of low cost carriers, and, in particular, to call attention to cities where U.S. consumers pay high prices because they do not benefit from low cost service.

Second, we encourage communities to promote their own interests by undertaking efforts to encourage low cost new entry. Awareness of the benefits of low cost service where it has succeeded should be adequate incentive for communities to pursue low cost service.

Third, we will continue to consider and carefully review allegations of anticompetitive behavior that are brought to our attention. While we will continue to act prudently in this area so as not to shelter new entrants from the full force of vigorous market competition we will also continue to seek to ensure that free market mechanisms are given a chance to work to the benefit of consumers.

Fourth, where appropriate we will pursue enforcement activity to prohibit any airline from engaging in behavior that may be anticompetitive. We will continue to work closely with the Department of Justice, but we will also consider proceeding on our own in particular cases, based on our authority to prohibit airlines from engaging in practices which could be considered anticompetitive under antitrust principles.

Fifth, we will build on this baseline study to examine further why low cost service is succeeding in most areas but not in others, particularly at concentrated hubs where the dominant carriers continue to charge very high fares. It is important to understand whether these differences are due to economic factors, such as size of local markets, geographic location, groundside limitations, or effectiveness of competition, or non-economic barriers such as incumbent carriers hoarding gate space, abuse of market power or other factors.

Sixth, the Department will continue to encourage and facilitate applications to form new airlines.

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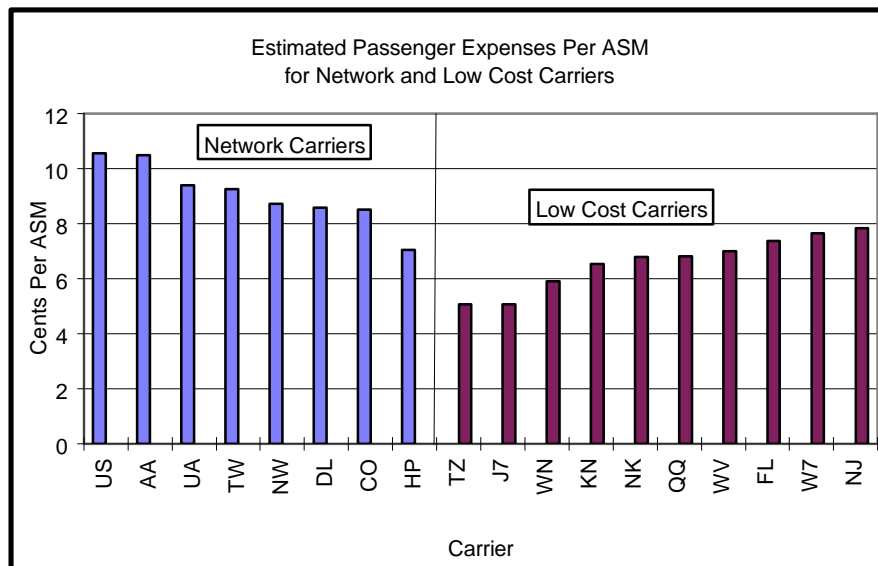
LOW COST CARRIERS IN THIS REPORT

In selecting low cost carriers for the purposes of this report, we considered unit costs and pricing practices. The carriers we have included as low cost carriers for the various periods in this report are as follows:

<u>Carrier</u>	<u>1988</u>	<u>1992</u>	<u>1994</u>	<u>YE 1995/3</u>
Air South (WV)			X	X
American Trans Air (TZ)			X	X
Frontier (FL)				X
Morris Air (KN)			X	X
Reno Air (QQ)			X	X
Southwest (WN)	X	X	X	X
Spirit (NK)			X	X
ValuJet (J7)			X	X
Vanguard (NJ)			X	X
Western Pacific (W7)				X

Unit Operating Costs:

We estimated operating costs per available seat mile for passenger service. We used total operating expenses, less transport related expenses, and used a revenue offset approach to estimate non passenger expenses, that is, we assumed that the non passenger expenses equal non passenger revenues, and reduced total operating expenses accordingly. This produced scheduled passenger operating expenses per seat mile for the network carriers and the low cost carriers we used in this report, as follows.



Pricing Practices:

We looked at each new entrant airline's average prices on a market-by-market basis to determine whether or not the carrier consistently maintains low fares relative to prices charged by other carriers before it entered a city-pair market. Examples are contained in Attachment 2.

Our selection of certain carriers in this report is not intended to be an all inclusive list of low cost, low fare carriers, and will change in future updates. For example, in this report we first included data for Western Pacific and Frontier for the year ended September 30, 1995. Western Pacific did not begin service until 1995, and while Frontier has operated in earlier periods examined in this report, it has recently changed its operating strategy. In the event that unit costs for Frontier and certain of the more recent new entrants do not decrease we will likely exclude them from future updates.

At the same time, while it would not have been unreasonable to include other new entrant airlines that have very low operating costs, most are very small, or do not appear to consistently charge low prices. While other new entrant airlines clearly are having an effect on fares in some markets, not including them in this study did not significantly affect the overall results of the study.

NEW ENTRANT LOW COST AIRLINES
Traffic, Market Share and Average Price Information
for Selected Markets

Attachment 2

Market/ Carrier	Comparison Quarter			Current Quarter			Change			
	Psgs	Mkt Shr (%)	Avg Fare (\$)	Psgs	Mkt Shr (%)	Avg Fare (\$)	Passengers Amt	%	Fares Amt	%
Air South (WV) 93/3										
Atlanta-Raleigh/Durham:			(93/3)	(95/3)						
WV				32,380	33	70.60	32,380			
AA	9,700	19	161.00				(9,700)	-100		
DL	38,120	78	187.90	41,430	43	182.00	3,310	9	-5.90	-3
J7				18,340	19	69.70	18,340			
All	48,750		181.70	95,610		119.70	46,860	96	-62.00	-34
Atlanta-Jacksonville			(93/3)	(95/3)						
WV				30,250	33	57.20	30,250			
DL	37,130	84	158.20	30,960	34	156.10	(6,170)	-17	-2.10	-1
J7				28,750	31	58.30	28,750			
All	44,170		152.00	90,070		91.60	45,900	104	-60.40	-40
Atlanta-Columbia			(93/3)	(95/3)						
WV				19,550	63	56.40	19,550			
DL	13,430	98	158.60	11,090	36	162.10	(2,340)	-17	3.50	2
All	13,630		158.40	30,660		94.70	17,030	125	-63.70	-40
Atlanta-Tallahassee			(93/3)	(95/3)						
WV				11,530	59	57.80	11,530			
DL	9,070	100	155.40	7,370	38	182.60	(1,700)	-19	27.20	18
All	9,070		155.40	19,370		106.10	10,300	114	-49.30	-32
Spirit Air Lines (NK)										
Detroit-Orlando			(93/2)	(95/2)						
NK				22,210	17	85.00	22,210			
DL	23,740	28	131.90	16,440	13	129.00	(7,300)	-31	-2.90	-2
NW	47,830	58	123.90	74,920	60	110.60	27,090	57	-13.30	-11
All	82,110		126.90	124,260		108.10	42,150	51	-18.80	-15
Detroit-Ft. Myers			(93/3)	(95/3)						
NK				15,440	39	71.80	15,440			
DL	3,450	17	129.00	1,260	3	133.70	(2,190)	-63	4.70	4
NW	11,930	60	112.70	20,840	53	84.00	8,910	75	-28.70	-25
ALL	19,740		114.50	38,720		81.70	18,980	96	-32.80	-29
Philadelphia-Tampa			(93/3)	(95/3)						
NK				13,240	20	75.50	13,240			
US	45,750	82	133.90	41,830	64	137.50	(3,920)	-9	3.60	3
ALL	55,220		133.40	65,150		123.30	9,930	18	-10.10	-8

NEW ENTRANT LOW COST AIRLINES
Traffic, Market Share and Average Price Information
for Selected Markets

Attachment 2

Market/ Carrier	Comparison Quarter			Current Quarter			Change			
	Psgs	Mkt Shr (%)	Avg Fare (\$)	Psgs	Mkt Shr (%)	Avg Fare (\$)	Passengers		Fares	
							Amt	%	Amt	%
Detroit-Tampa			(93/3)	(95/3)						
NK				12,390	18	76.00	12,390			
NW	32,810	68	123.40	48,570	70	99.60	15,760	48	-23.80	-19
All	48,140		121.20	68,780		96.50	20,640	43	-24.70	-20
Detroit/Ft. Lauderdale			(93/3)	(95/3)						
NK				9,670	22	72.30	9,670			
DL	4,460	15	136.50	3,300	7	135.20	(1,160)	-26	-1.30	-1
NW	13,950	48	132.00	26,930	63	101.70	12,980	93	-30.30	-23
TW	6,080	21	114.30				(6,080)	-100		
All	28,620		129.20	42,700		98.20	14,080	49	-31.00	-24
Vanguard (NJ)										
Denver-Kansas City			(93/3)	(95/3)						
NJ				21,740	25	69.30	21,740			
CO	21,980	43	138.10				(21,980)	-100		
UA	25,590	51	159.50	62,950	72	90.70	37,360	146	-68.80	-43
ALL	50,050		148.20	86,930		86.40	36,880	74	-61.80	-42
Dallas-Wichita Falls			(94/3)	(95/3)						
NJ				17,420	45	44.00	17,420			
AA	14,760	77	95.40	16,020	41	66.40	1,260	9	-29.00	-30
EV	3,520	18	135.50	4,500	11	136.40	980	28	0.90	1
All	19,070		103.00	38,290		64.60	19,220	101	-38.40	-37
Kansas City-Minneapolis			(94/3)	(95/3)						
NJ				14,170	20	42.80	14,170			
NW	29,040	89	192.70	53,430	78	69.20	24,390	84	-123.50	-64
All	32,370		189.60	68,390		64.70	36,020	111	-124.90	-66
Minneapolis-Des Moines			(94/3)	(95/3)						
NJ				12,490	40	23.20	12,490			
NW	9,110	98	151.40	18,600	59	47.40	9,490	104	-104.00	-69
All	9,250		150.90	31,110		37.70	21,860	236	-113.20	-75
Dallas-Kansas City			(94/3)	(95/3)						
NJ				16,770	15	55.80	16,770			
AA	48,250	67	115.30	90,030	83	86.20	41,780	87	-29.10	-25
DL	21,180	29	114.80				(21,180)	-100		
All	71,780		113.40	107,930		81.50	36,150	50	-31.90	-28

NEW ENTRANT LOW COST AIRLINES
Traffic, Market Share and Average Price Information
for Selected Markets

Attachment 2

Market/ Carrier	Comparison Quarter			Current Quarter			Change			
	Psgs	Mkt Shr (%)	Avg Fare (\$)	Psgs	Mkt Shr (%)	Avg Fare (\$)	Passengers		Fares	
							Amt	%	Amt	%
Western Pacific (W7)										
Colorado Springs-Phoenix			(94/3)	(95/3)						
W7				32,600	53	64.10	32,600			
HD	10,610	75	128.50	22,790	37	86.10	12,180	115	-42.40	-33
All	13,980		123.50	61,500		72.50	47,520	340	-51.00	-41
Colorado Springs-Dallas			(94/3)	(95/3)						
W7				12,820	27	73.60	12,820			
AA	10,850	67	174.10	27,130	58	88.10	16,280	150	-86.00	-49
DL	3,280	20	163.90	5,770	12	92.90	2,490	76	-71.00	-43
All	16,020		167.00	46,710		85.20	30,690	192	-81.80	-49
Colorado Springs-Houston			(94/3)	(95/3)						
W7				11,830	40	78.60	11,830			
CO	1,850	42	169.40	9,860	34	89.90	8,010	433	-79.50	-47
UA	1,070	24	178.50	3,120	10	104.70	2,050	192	-73.80	-41
All	4,330		176.30	28,980		93.90	24,650	569	-82.40	-47

**ANNUAL SAVINGS
ATTRIBUTABLE TO LOW COST AIRLINES**

The estimated savings attributed to low cost carriers is based on the Department's Origin and Destination Survey data. To calculate the savings, we isolated data for markets in which a low cost, low fare carrier had a competitive market share (10 percent or more), and compared the average prices paid by all passengers in such markets with average prices paid by all passengers in other markets. In comparing prices in these two subgroups of markets, we adjusted for differences in average distance and density.

We then multiplied the calculated difference in average fare paid by passengers in these subgroups of markets times the number of passengers traveling in markets with low cost service. We made these calculations separately for markets that involve a network hub dominated by a single carrier, and non-hub markets, as follows:

	<u>Savings Per Passenger</u>	<u>Number of Passengers (millions)</u>	<u>Revenue Savings (billions)</u>
<u>YE 9/30/95:</u>			
Non hub markets	\$46.53	78.8	\$3.7
Hub markets	\$69.68	<u>37.4</u>	<u>\$2.6</u>
Total		<u>116.2</u>	<u>\$6.3</u>
<u>CY 1994:</u>			
Non hub markets	\$42.19	63.5	\$2.7
Hub markets	\$66.19	<u>27.8</u>	<u>\$1.8</u>
Total		<u>91.3</u>	<u>\$4.5</u>
<u>CY 1992:</u>			
Non hub markets	\$51.11	36.5	\$1.9
Hub markets	\$42.35	<u>15.0</u>	<u>\$0.6</u>
Total		<u>51.5</u>	<u>\$2.5</u>
<u>CY 1988:</u>			
Non hub markets	\$30.81	20.4	\$0.6
Hub markets	\$38.54	<u>12.1</u>	<u>\$0.5</u>
Total		<u>32.5</u>	<u>\$1.1</u>

For example, for the year ended September 30, 1995, in nonhub markets passengers traveling in markets served by low cost carriers pay, on average, \$46.53 less than those traveling in nonhub markets not served by low cost carriers. We multiplied this by the total number of passengers reported in markets served by low cost carriers, or approximately 78.8 million passengers, for a total revenue savings of \$3.7 billion.

**INCREASE IN DOMESTIC AIRLINE PASSENGERS
RESULTING FROM LOW COST SERVICE
(Southwest and new entrant airlines)**

We estimate that low cost airlines result in 47 million additional passengers annually for the domestic airline industry.

Passengers generated by low cost service for the markets which have added low cost service since 1992 were estimated by comparing data for these markets with data for the control group, or markets that did not have low cost service in either, as follows:

Third quarter 1995 passengers	15,647,390
Estimated passengers by multiplying the % increase in the control group (5.0%) by 1992 passengers (9,040,240)	<u>9,492,252</u>
Stimulated passengers	6,155,138
Annualize--divide by third quarter share (.258)	<u>23,857,124</u>

We could not estimate stimulation in the same way for markets that had low cost service in both periods since stimulative effects of low cost service were already present in 1992. We therefore applied the same relative stimulation for these markets as we calculated above for the markets with new low cost service, which amounted to 39.3 percent of 1995 passengers. Third quarter 1995 passengers for these markets (15,088,450), times 0.393

	5,929,761
Annualize--divide by .258	<u>22,983,570</u>
Total additional passengers	<u>46,840,694</u>

Large and Medium Hubs (FAA definition)
Percent of Passengers in Markets With Low Cost Service
and Fare Premium or Discount--Amount and Percent
(Arrayed in alphabetical order)

City	% Passengers in Low Cost Markets	Fare Premium or Discount		City	% Passengers in Low Cost Markets	Fare Premium or Discount	
		\$ Amount	Percent			\$ Amount	Percent
Albuquerque	80.7	-27.0	-19.5	Minneapolis	2.9	46.2	31.5
Atlanta	46.2	31.3	24.8	Nashville	57.6	8.0	5.7
Austin	67.7	-6.1	-4.6	New Orleans	53.6	-15.1	-10.7
Baltimore	41.7	-10.6	-7.4	New York	0.0	18.7	12.4
Boston	8.7	23.4	15.8	Norfolk	0.0	8.5	5.7
Buffalo	0.0	18.7	14.2	Oakland	92.7	-30.5	-28.7
Burbank	80.2	-25.0	-26.2	Oklahoma City	76.9	-16.7	-12.1
Charlotte	0.0	52.5	38.5	Ontario	77.6	-26.2	-20.9
Chicago	52.0	4.2	3.1	Orange Cty	32.9	-1.1	-0.8
Cincinnati	0.0	65.5	47.6	Orlando	37.3	-16.6	-10.9
Cleveland	37.4	7.4	6.0	Philadelphia	14.4	25.8	17.6
Columbus	37.6	-1.5	-1.1	Phoenix	74.4	-24.7	-18.1
Dallas	43.5	26.1	20.3	Pittsburgh	0.0	41.4	30.8
Denver	14.1	12.5	8.2	Portland, O	44.2	-19.8	-13.6
Detroit	40.8	18.0	12.9	Raleigh/Durham	17.6	24.9	17.9
El Paso	89.9	-30.0	-21.9	Reno	86.7	-37.8	-30.5
Ft. Lauderdale	31.4	-17.5	-11.1	Sacramento	77.0	-25.8	-20.8
Ft. Myers	46.8	-25.5	-15.9	St. Louis	62.0	-7.7	-5.9
Greensboro	0.0	10.8	7.6	Salt Lake City	72.5	-24.5	-17.8
Hartford	11.5	23.2	14.7	San Antonio	65.3	-8.9	-6.7
Houston	67.5	4.8	3.6	San Diego	60.7	-24.0	-17.3
Indianapolis	50.1	-10.8	-7.4	San Francisco	17.2	-8.4	-4.9
Jacksonville	31.0	8.2	5.8	San Jose	74.2	-12.9	-10.2
Kansas City	66.8	-19.2	-14.1	Seattle	36.5	-25.0	-15.7
Las Vegas	67.2	-35.8	-26.9	Spokane	81.5	-28.8	-22.7
Los Angeles	42.9	-14.1	-9.0	Tampa	37.1	-9.6	-6.4
Louisville	71.8	-22.0	-16.5	Tucson	55.3	-26.0	-17.6
Memphis	31.3	34.4	24.2	Tulsa	80.2	-17.0	-12.8
Miami	10.3	-17.1	-10.6	Washington	16.6	32.9	22.9
Milwaukee	22.2	-6.9	-4.5	West Palm Beach	17.7	-11.8	-7.6

Large and Medium Hubs (FAA definition)
Percent of Passengers in Markets With Low Cost Service
and Fare Premium or Discount--Amount and Percent
(Arrayed in descending order of low cost market share)

City	% Passengers in Low Cost Markets	Fare Premium or Discount		City	% Passengers in Low Cost Markets	Fare Premium or Discount	
		\$ Amount	Percent			\$ Amount	Percent
Oakland	92.7	-30.5	-28.7	Los Angeles	42.9	-14.1	-9.0
El Paso	89.9	-30.0	-21.9	Baltimore	41.7	-10.6	-7.4
Reno	86.7	-37.8	-30.5	Detroit	40.8	18.0	12.9
Spokane	81.5	-28.8	-22.7	Columbus	37.6	-1.5	-1.1
Albuquerque	80.7	-27.0	-19.5	Cleveland	37.4	7.4	6.0
Burbank	80.2	-25.0	-26.2	Orlando	37.3	-16.6	-10.9
Tulsa	80.2	-17.0	-12.8	Tampa	37.1	-9.6	-6.4
Ontario	77.6	-26.2	-20.9	Seattle	36.5	-25.0	-15.7
Sacramento	77.0	-25.8	-20.8	Orange Cty	32.9	-1.1	-0.8
Oklahoma City	76.9	-16.7	-12.1	Ft. Lauderdale	31.4	-17.5	-11.1
Phoenix	74.4	-24.7	-18.1	Memphis	31.3	34.4	24.2
San Jose	74.2	-12.9	-10.2	Jacksonville	31.0	8.2	5.8
Salt Lake City	72.5	-24.5	-17.8	Milwaukee	22.2	-6.9	-4.5
Louisville	71.8	-22.0	-16.5	West Palm Beach	17.7	-11.8	-7.6
Austin	67.7	-6.1	-4.6	Raleigh/Durham	17.6	24.9	17.9
Houston	67.5	4.8	3.6	San Francisco	17.2	-8.4	-4.9
Las Vegas	67.2	-35.8	-26.9	Washington	16.6	32.9	22.9
Kansas City	66.8	-19.2	-14.1	Philadelphia	14.4	25.8	17.6
San Antonio	65.3	-8.9	-6.7	Denver	14.1	12.5	8.2
St. Louis	62.0	-7.7	-5.9	Hartford	11.5	23.2	14.7
San Diego	60.7	-24.0	-17.3	Miami	10.3	-17.1	-10.6
Nashville	57.6	8.0	5.7	Boston	8.7	23.4	15.8
Tucson	55.3	-26.0	-17.6	Minneapolis	2.9	46.2	31.5
New Orleans	53.6	-15.1	-10.7	Buffalo	0.0	18.7	14.2
Chicago	52.0	4.2	3.1	Charlotte	0.0	52.5	38.5
Indianapolis	50.1	-10.8	-7.4	Cincinnati	0.0	65.5	47.6
Ft. Myers	46.8	-25.5	-15.9	Greensboro	0.0	10.8	7.6
Atlanta	46.2	31.3	24.8	New York	0.0	18.7	12.4
Portland, O	44.2	-19.8	-13.6	Norfolk	0.0	8.5	5.7
Dallas	43.5	26.1	20.3	Pittsburgh	0.0	41.4	30.8

Large and Medium Hubs (FAA definition)
Percent of Passengers in Markets With Low Cost Service
and Fare Premium or Discount--Amount and Percent
(Arrayed in descending order of fare premium (discount))

City	% Passengers in Low Cost Markets	Fare Premium or Discount		City	% Passengers in Low Cost Markets	Fare Premium or Discount	
		\$ Amount	Percent			\$ Amount	Percent
Cincinnati	0.0	65.5	47.6	San Antonio	65.3	-8.9	-6.7
Charlotte	0.0	52.5	38.5	Indianapolis	50.1	-10.8	-7.4
Minneapolis	2.9	46.2	31.5	Baltimore	41.7	-10.6	-7.4
Pittsburgh	0.0	41.4	30.8	West Palm Beach	17.7	-11.8	-7.6
Atlanta	46.2	31.3	24.8	Los Angeles	42.9	-14.1	-9.0
Memphis	31.3	34.4	24.2	San Jose	74.2	-12.9	-10.2
Washington	16.6	32.9	22.9	Miami	10.3	-17.1	-10.6
Dallas	43.5	26.1	20.3	New Orleans	53.6	-15.1	-10.7
Raleigh/Durham	17.6	24.9	17.9	Orlando	37.3	-16.6	-10.9
Philadelphia	14.4	25.8	17.6	Ft. Lauderdale	31.4	-17.5	-11.1
Boston	8.7	23.4	15.8	Oklahoma City	76.9	-16.7	-12.1
Hartford	11.5	23.2	14.7	Tulsa	80.2	-17.0	-12.8
Buffalo	0.0	18.7	14.2	Portland, O	44.2	-19.8	-13.6
Detroit	40.8	18.0	12.9	Kansas City	66.8	-19.2	-14.1
New York	0.0	18.7	12.4	Seattle	36.5	-25.0	-15.7
Denver	14.1	12.5	8.2	Ft. Myers	46.8	-25.5	-15.9
Greensboro	0.0	10.8	7.6	Louisville	71.8	-22.0	-16.5
Cleveland	37.4	7.4	6.0	San Diego	60.7	-24.0	-17.3
Jacksonville	31.0	8.2	5.8	Tucson	55.3	-26.0	-17.6
Nashville	57.6	8.0	5.7	Salt Lake City	72.5	-24.5	-17.8
Norfolk	0.0	8.5	5.7	Phoenix	74.4	-24.7	-18.1
Houston	67.5	4.8	3.6	Albuquerque	80.7	-27.0	-19.5
Chicago	52.0	4.2	3.1	Sacramento	77.0	-25.8	-20.8
Orange Cty	32.9	-1.1	-0.8	Ontario	77.6	-26.2	-20.9
Columbus	37.6	-1.5	-1.1	El Paso	89.9	-30.0	-21.9
Milwaukee	22.2	-6.9	-4.5	Spokane	81.5	-28.8	-22.7
Austin	67.7	-6.1	-4.6	Burbank	80.2	-25.0	-26.2
San Francisco	17.2	-8.4	-4.9	Las Vegas	67.2	-35.8	-26.9
St. Louis	62.0	-7.7	-5.9	Oakland	92.7	-30.5	-28.7
Tampa	37.1	-9.6	-6.4	Reno	86.7	-37.8	-30.5

INDIVIDUAL DOMESTIC NETWORK HUB CITIES
 Fares for Local Passengers Compared With
 Fares in Other Domestic Markets

Hub City	'1988		'1994		'1995/3	
	Amount	Percent	Amount	Percent	Amount	Percent
Atlanta	50.91	47.1	37.40	32.7	43.26	37.9
Charlotte	36.28	33.6	37.48	31.0	63.98	51.3
Cincinnati	49.26	44.9	65.51	53.7	79.37	64.2
Denver	-4.47	-3.6	12.61	8.7	23.02	16.2
Detroit	2.53	2.2	28.75	22.2	27.01	20.7
Houston	11.43	9.9	6.91	5.5	11.61	9.2
Memphis	39.73	32.9	46.08	35.5	46.54	35.9
Minneapolis	28.08	23.0	58.74	42.3	55.89	40.8
Pittsburgh	13.44	12.4	52.32	43.2	55.23	45.7
Salt Lake City	27.15	21.1	-2.53	-2.0	-13.99	-11.0
St. Louis	26.51	23.9	5.20	4.5	3.60	3.0
11 Hubs	19.80	17.0	25.20	19.7	28.26	22.1