Consumer Federation of America

MERGERS BETWEEN MAJOR AIRLINES:
THE ANTI-COMPETITIVE AND ANTI-CONSUMER EFFECTS OF THE CREATION OF A PRIVATE CARTEL

STATEMENT OF
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COMMITTEE ON ENERGY AND COMMERCE
UNITED STATES HOUSE OF REPRESENTATIVES

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Mr .Chairman and Members of the Committee,

I am Dr. Mark N. Cooper, Director of Research for the Consumer Federation of America (CFA). CFA is the nation's largest consumer advocacy group, a non-profit association of some 260 pro-consumer groups, with a combined membership of 50 million, founded in 1968 to advance the consumer interest through advocacy and education. I appreciate the opportunity to appear before you today to offer our view of pending airline mergers

A couple of years ago I published a paper entitled *Freeing Public Policy From The Deregulation Debate: The Airline Industry Comes Of Age (And Should Be Held Accountable For Its Anticompetitive Behavior)*.[1] Since then this industry has experienced a dramatic decline in the quality of service, a dramatic increase in prices, and now stands on the verge of a merger wave that will make matters worse. Not only is it time for the industry to bear responsibility for its own actions, it is time for policymakers to confront the reality that this industry is not and will not be organized on a vigorously competitive basis.

With two mergers pending between major airlines and a third being widely talked about, there can be no more uncertainty about the structure of the industry. The airline industry is in the process of organizing itself into a private cartel. Two or three dominant firms will control the vast majority of traffic through monopoly airports in fortress regions embedded in national networks that rarely compete with one another. A few end points will have vigorous competition, but the vast majority of passengers will be trapped on routes with far too few alternatives to create an effectively competitive market.

As travelers fall more and more under the control of one airline, the ability of new entrants to crack markets is reduced. It becomes harder and harder to attract passengers to flight segments and the necessary scale of entry gets larger and larger. The inconvenience and, in many cases, the impossibility of inter-airline travel, give the originating airline enhanced market power over the traveler and makes it more and more difficult for smaller airlines to compete for the traffic. As travelers are locked-in to the national networks with fewer and fewer choices, they suffer the typical effects of the abuse of market power, higher prices and lower quality.

[1] American Bar Association, *The Air and Space Lawyer*, January 1999.

THE CREATION OF A PRIVATE CARTEL

At the heart of the market power wielded by the major airlines is a system of fortress hubs and the anticompetitive, predatory practices that major airlines use to prevent new entrants from serving the fortress hubs. Advocates of deregulation failed to anticipate the development of this form of industrial organization.[2] While they may have recognized the possibility that competition would not develop on lightly traveled routes or at small airports,[3] the notion that single airlines would come to dominate and control huge airports was unthinkable twenty years ago.

Hubs create economies of scale and operating efficiencies as well as marketing advantages that make it extremely difficult for competitors to enter. The concentration of traffic at hubs allows incumbents to achieve lower costs.[4] The concentration of traffic and prominent position in the hub enables the incumbent to achieve both a greater reputation and to offer a broader range of options at the hub.[5] Advertising and promotion are facilitated.[6] Scheduling and baggage handling are better coordinated.[7]

Unfortunately, these "positive" economic advantages of hub and spoke networks never get passed through to consumers. They have been immediately leveraged with anti-competitive actions to increase and exploit market power by incumbents dominating hubs.

Incumbent airlines create barriers to entry by locking in customers and disadvantaging competitors. Traffic is diverted to the dominant incumbent at dominated hubs through a number of marketing mechanisms that extends market power over travelers including frequent flier programs,[8] deals with travel agents to divert traffic,[9] manipulation of computerized reservation systems,[10] and code sharing.[11] The ability of competitors to enter hubs is

[2] Rakowski and Bejou (1992), Oum Zhang and Zhang (1995).

[3] The unique problems of small airports and low density routes were recognized in the legislation ending the existence of the CAB -- see Meyer and Oster (1984) and Malloy (1985).

[4] Johnson (1985), McShane and Windle (1989), Oum and Trethaway (1990), Berry (1990), Morrison and Winston (1990), Oum (1991), Berry (1992), Boucher and Spiller (1994), Joskow, et al (1994).

[5] Levin (1987), Bornstein (1989, 1992), Zhang (1996).

[6] Evans and Kessides (1993).

[7] Oum and Taylor (1995).

[8] Levine (1987), Oum (1987), Borenstein (1989), Layer (1989), GAO (1996).

[9] Levine (1987), Borenstein (1989, 1991, 1992), Morrison and Winston (1995).

[10] Oster and Pickerell (1986), Borenstein (1989), Layer (1989), Brenner (1989), Evans and Kessides (1993).

undermined in a number of ways. Access to facilities is impeded through a number of mechanisms that preclude or raise the cost of entry,[12] including denial of gate space,[13] extraction of excess profits on facilities,[14] and efforts to prevent entrants from attracting adequate passengers to establish a presence.[15] When entrants do show up, the dominant airlines have engaged in blatantly predatory pricing to drive them out of the market.[16]

The monopolized hubs are building blocks of potential national market power through concentration of the industry. The geographic extension that United and American are seeking (soon to be followed by some combination of Delta, Northwest and Continental) and the denser network that the mergers would create make it less and less likely that competitors will be able to attack these markets. As all such airline networks do, these mergers would lock travelers in by concentrating their flow through fortress hubs, coordinating scheduling at those hubs, and binding them with frequent flier and other promotional programs. These mergers are likely to promote a movement from fortress hubs to fortress regions.

A HIGHLY CONCENTRATED INDUSTRY

Industry structure has become sufficiently concentrated to raise a fundamental question about whether market forces are sufficient to prevent the abuse of market power. Both at individual hubs and in the industry as a whole, markets have become or are becoming highly concentrated. Attorney's General from 25 states filed comments in support of the Department of Transportation's anti-predation rule which identified 15 airports at which the dominant firm had a market share in excess of 70 percent. This is the standard generally applied to indicate monopoly status. Another half dozen airports have a dominant carrier (50 to 70 percent market share) close to the monopoly (see Exhibit 1).

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[11] Oum (1995) identifies three positive advantages created by code sharing -- increased frequency of flights, concentration of traffic, marketing of single line travel -- and one negative -- CRS placement advantages due to frequency and single line service.

[12] Berry (1987), Levine (1987), Borenstein (1989), Butler and Houston (1989), Reiss and Spilber (1989), Oum, Zhang and Zhang (1995), and Hendricks (1995).

[13] Levine (1987), Borenstein (1989), Kahn (1993), GAO (1996).

[14] GAO (1996).

[15] Credible entry requires the entrant to move sufficiently up the S-curve to have a viable economic base (Russon (1992), Vakil and Russon (1995). GAO notes that entrant require at least six slots at prime times to establish a credible presence.

[16] "Comment of the Attorneys General of the States of Arkansas, Connecticut, Florida, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nevada, New York, North Carolina, North Dakota, Oklahoma, Oregon, South Dakota, Tennessee, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming," U.S. Department of Transportation, 1998, Docket No. OST 98-3713 (hereafter, Attorneys General.

This is not a small airport problem. Seven of the ten busiest airports in the country are on the list. One-half of all passenger enplanements take place at the twenty airports on the list. These fortress hubs are the cornerstone of a nationwide problem. The local monopolies are reinforced by an industry structure in which there is simply inadequate competition to discipline the abuse of market power. There are too few competitors in the industry as a whole and in most markets on a route-by-route basis.

Let us step back a moment on consider what constitutes "too few" competitors. Identification of exactly where a small number of firms can exercise market power is not a precise science, but it is widely recognized that when the number of significant firms falls into the single digits public policy concerns are triggered.[17] In fact, I like to use what I call the "Ed Meese tests of market power." You will recall that based on the extensive theoretical and empirical record of decades of analysis, Ronald Reagan's Department of Justice headed by Ed Meese issued the *Merger Guidelines* in 1984.

The Reagan Administration DOJ established a fundamental threshold to separate an unconcentrated market from a moderately concentrated market at the level of a Hirschman-Herfindahl Index (HHI) of 1000. This level of concentration would be achieved in a market of 10 equal size competitors. In this market, the 4-Firm concentration ratio would be 40 percent. The DOJ established a second threshold at an HHI of 1800. Above this level, the market is considered highly concentrated. This is roughly equal to a market with fewer than six equal sized competitors. A market with six, equal-sized firms would have a HHI of 1667. In a market with six, equal-sized firms, the 4-Firm concentration would be 67 percent.

The reason the six and ten firm thresholds are important is that they constitute well-documented and understood levels of oligopoly. In a tight oligopoly with a small a number of firms controlling such a large market share, it is much easier to avoid competing with each other and harm the public through price increases or quality deterioration.

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[17] Friedman, 1983, pp. 8-9,

Where is the line to be drawn between oligopoly and competition? At what number do we draw the line between few and many? In principle, competition applies when the number of competing firms is infinite; at the same time, the textbooks usually say that a market is competitive if the cross effects between firms are negligible. Up to six firms one has oligopoly, and with fifty firms or more of roughly equal size one has competition; however, for sizes in between it may be difficult to say. The answer is not a matter of principle but rather an empirical matter.

Shepherd describes this threshold as follows:[18]

> Tight Oligopoly: The leading four firms combined have 60-100 percent of the market; collusion among them is relatively easy.
>
> Loose Oligopoly: The leading four firms, combined, have 40 percent or less of the market; collusion among them to fix prices is virtually impossible.

By these definitions, airline markets are generally highly concentrated. Most routes have fewer than four carriers. National averages typically find HHIs in the range of 4000 on a city-pair basis.[19] One recent study found that, measured at airports, the HHI was just under 3300 -- the equivalent of three airlines per airport), but measured by city pairs the HHI was over 5000 -- the equivalent of two per route.[20] Given such a high level of concentration, we should not be surprised to find that anti-competitive behavior and changes in market structure have a significant impact on fares. Exercising market power is easy in such highly concentrated markets.

While market power is best analyzed on a market-by-market basis, since it is the monopoly at the point-of-sale that triggers the abuse, national markets are not irrelevant. As the industry becomes more and more concentrated, the pool of potential major entrants shrinks. The ability of the large dominant firms to avoid one another in the market and engage in conscious parallelism or strategic gaming increases.

Before the pending merger wave, the industry had become moderately concentrated, with an HHI of approximately 1400. The two pending mergers (United/US Airways and American/TWA) would push it above 1800. A Delta/Northwest or Delta/Continental merger, which is anticipated as a defensive response, would drive it well above 2200. Each of the pending consolidations would violate the Merger Guidelines on a national scale, as well as in individual markets. Taken together, they drive the industry structure well above the highly concentrated level.

On a market-by-market basis the mergers violate the Department of Justice Merger Guidelines in more than half-a-dozen major airports including Philadelphia, Dulles, National,

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[18] Shepherd, 1985, p. 4, see also Bates, B. J. 1993, p. 6.

[19] See for example, Dresner, Lin and Windle (1996). City-pair markets generally include all flights between to points including direct and connecting (single airline) flights.

[20] Hayes and Ross.

Baltimore, Boston, La Guardia, San Francisco, Orlando, Miami and St. Louis. There are numerous other smaller airports and routes from smaller airports that would also be affected. Whether they are hubs or not, the loss of head-to-head competition imposes a burden on consumers by reducing choices and ultimately increasing prices. Subsequent mergers among major carriers would affect many more specific airports.

CONSUMER HARM OF ANTICOMPETITIVE PRACTICES IN THE AIRLINE INDUSTRY

The lack of competition in the industry costs consumers dearly. Consumers do not see economic savings from hub operations. Instead, they endure higher prices and poor quality associated with the abuse of market power. The dominant incumbents can raise price, without risking entry[21] and rely on excessive market segmentation to restrict price competition.[22] The strategy involves finding mechanisms to sort customers into categories with different price sensitivities and then offering higher prices in the less price sensitive category.[23] Prices[24] and profits at hubs are higher.[25] Since they do not face effective competition, they do not feel compelled to improve quality.

This finding cannot be overemphasized, especially in light of recent efforts by airlines to demonstrate that, in theory,[26] larger networks provide consumer benefits. In practice, as the Department of Justice and a great deal of empirical analysis demonstrates, the theoretical benefits never materialize in reality because the major airlines abuse their market power. Cost savings are not passed through to consumers. When competitors enter concentrated hubs, prices go down and frequency goes up – both in the number of departures and in the number

[21] The fact that higher prices persist at hubs is evidence of the ability to sustain prices. Direct tests of the entry decision also support this notion (see, for example, Joskow et al (1994).

[22] Borenstein (1989) notes that by segmenting markets incumbents can diminish the impact of competition at hub airports. Evans and Kessides (1993), Oum and Zhang (1993), and Mallaiebiau and Hansen (1995) observe a generally low elasticity of demand across all markets.

[23] DOT, 2001, notes that while some price discrimination is to be expected, it appears to be excessive in concentrated airline markets.

[24] Bailey and Wilkins (1988), Huston and Butler (1988), Borenstein (1989), Evans and Kessides (1993), Joskow, et al. (1994), GAO (1996), DOT (1996).

[25] Toh and Higgins (1985), McShane and Windle (1989).

[26] DOT, 2001, identifies. A study by ESI.KPMG, *The Advent of National Aviation Networks* (October 2000), sought to justify the consolidation into three national networks on the basis of an analysis that is so fundamentally flawed it lacked any identified authors. The analysis ignores all price effects due to the loss of competitors. It uses an econometric estimate of gains from online traffic that assumes the price of a ticket has no effect on air travel. It excludes all large hubs all airports served by Southwest all Essential Air Service airports, all airport served within 50 miles of a hub and all airports in leisure markets to derive a coefficient for network effects

of seats available. This gain occurs not only because the new entrant provides new seats at lower prices, but also because incumbents do too.

The empirical evidence that the creation of fortress hubs raises price is overwhelmingly clear. It should come as no surprise to you that dozens of studies show that competition among numerous airlines leads to lower prices and higher output. This is true no matter how competition is measured. The effect is observable at the micro level in the form of the entry of individual airlines into specific markets and at the macro level in the form of generalized concentration ratios.[27] Econometric studies of market structure have consistently shown that concentration on routes, at airports, and in the industry at large are associated with higher fares (see Exhibit 2).

Flowing from this evidence, we find support for a number of traditional observations about public policy. Actual competition is vastly more important than the threat of competition.[28] Barriers to entry play a critical role in determining the level and nature of competition.[29] Analysis of specific events -- entry, exit and mergers -- confirms these findings. Mergers tend to reduce competition, increase prices and lower output.[30]

Estimates of the general impact of competition on price are on a similar order of magnitude. Several GAO and DOT studies have found that prices are 20 - 50 percent lower in competitive markets. Similarly, estimates of the elimination or addition of one competitor bolster these findings. The impact of a low cost competitor is particularly pronounced. When specific low cost carriers are identified, like People's or Southwest, fares often are 35 to 40

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that is not statistically significant by traditional standards (i.e. it fails the 95 percent confidence interval). It applies this statistic to all airports to derive its estimate of positive benefits.

[27] A broad range of studies includes the Herfindahl index as a measure of concentration. These invariably find that higher levels of concentration are associated with higher prices, all other thing equal -- see, for example, Morrison and Winston (1986), Borenstein (1989), Dresner and Trethaway (1992), Dresner and Windle (1996).

[28] Graham, Kaplan and Sibley (1983), Call and Keeler (1985), Morrison and Winston (1986), Moore (1986), Strassman (1990), Petraf (1994), Petraf and Reed (1994), provide evidence on actual competition. Tests of potential competition have generally shown much smaller effects. The evidence suggests that one competitor in the hand is worth between three and six in the bush. The empirical evidence from the airline industry must be considered a thorough repudiation of contestability theory. On this point see Borenstein (1989), Butler and Houston (1989), Hurdle (1989), Abbott and Thompson (1991).

[29]The clearest examples of the importance of barriers to entry are the consistent finding that physical limitations on slots and gates result in less competition and higher prices. Virtually every econometric analysis includes a slot variable which supports this conclusion -- see, for example, Morrison and Winston (1986, 1990), Hurdle (1989), Whinston and Collins (1992), Windle and Dresner, 1995, and Dresner, Lin and Windle (1996). Analysis of legal barriers reaches similar results -- see Dresner and Trethaway (1992), Burton (1996).

[30] Borenstein (1990), Werden et al. (1991), and Morrison and Winston (1995).

percent lower than in markets without such aggressive new entrants. Thus, having one additional competitor impacts prices by 20 to 50 percent.

The econometric and anecdotal evidence is supported by a general trend in prices (see Exhibit 3). Airfares, as measured by the consumer price index have increased dramatically, particularly when key components of airline costs are taken into account. Since the mid-1980s, fuel prices have dropped by almost 50 percent. The cost of capital (measured by AAA corporate bonds) has declined by 20 percent. These are two of the three largest costs for airlines. Yet, airfares have mounted steadily.

Examples of clearly abusive pricing are also too frequent and too blatant to ignore. The state Attorney's General give three types of examples where fares differ by $700 or more: one airport originates flights to destination airports with dramatically different levels of competition; nearby airports with dramatically different levels of competition originate flights to the same destination; prices charged before and after a competitor is driven from the market.[31] The Department of Transportation has recently identified 19 routes on which new entrants were successful in establishing a presence in short haul hub markets in the past three years.[32] The resulting price reductions were in the range of 33 and 55 percent, with increases in passengers of between 61 and 86 percent.

PROPOSED FIXES ARE INADEQUATE

Recognizing the severe problems that these mergers create, the merging parties have offered a series of excuses and largely meaningless Band-Aids to try to patch over the fundamental problem. First, they claim these mergers must be allowed to go through to save airlines that cannot survive. Corporate bankruptcy is not a reason to allow the public to be abused by the undisciplined exercise of market power. If the industry requires a form of organization which does not allow meaningful competition to achieve financial integrity, then that is all the more reason for policymakers to step in and protect the public from abuse. Moreover, I must note that CFA opposed the corporate shenanigans that allowed TWA to be bled to death and the Piedmont merger from which US Airways never recovered.

[31] Attorneys General.
[32] U.S. Department of Transportation (2001).

Second, the private fixes offered totally inadequate. Carve outs and exchanges of assets do nothing to restore meaningful competition. Promises not to raise ticket prices for two years will be useless, since the airline can easily increase its yield by reducing the number of discounted seats available and what happens after two years. With a private cartel running the industry, the damage to competition will be permanent, not temporary.

The bottom line is clear. With two decades of econometric evidence about competitive problems at the levels of structure, conduct and performance reinforced by detailed analysis of recent events, we can only hope that the public policy debate will not revert to the irrelevant question of whether deregulation served the consumer interest. The trigger for public policy concern is, as it has always should have been, whether anticompetitive practices are hurting consumers. By every measure, the airlines are failing that test at present. Allowing a merger wave to further concentrate the industry would further diminish the already feeble competitive forces in the industry and harm the traveling public.

If this is the form organization that the industry will take, Congress needs to begin to assert greater authority over the industry. The starting point should be at the fortress hubs that are the building blocks of the anticompetitive structure. Access to these hubs must be assured for entrants. The predatory practices that have been used to drive new entrants out of markets must be eliminated. Consumer rights must be protected. We do not seek to have the government get back in the business of price and quantity regulation, we prefer vigorous competition. Unfortunately, the industry cannot produce a consumer-friendly, competitive marketplace, so Congress must step in to ensure competitive access to fortress hubs, outlaw predatory practices and provide consumers direct protection from poor quality service.

EXHIBIT 1

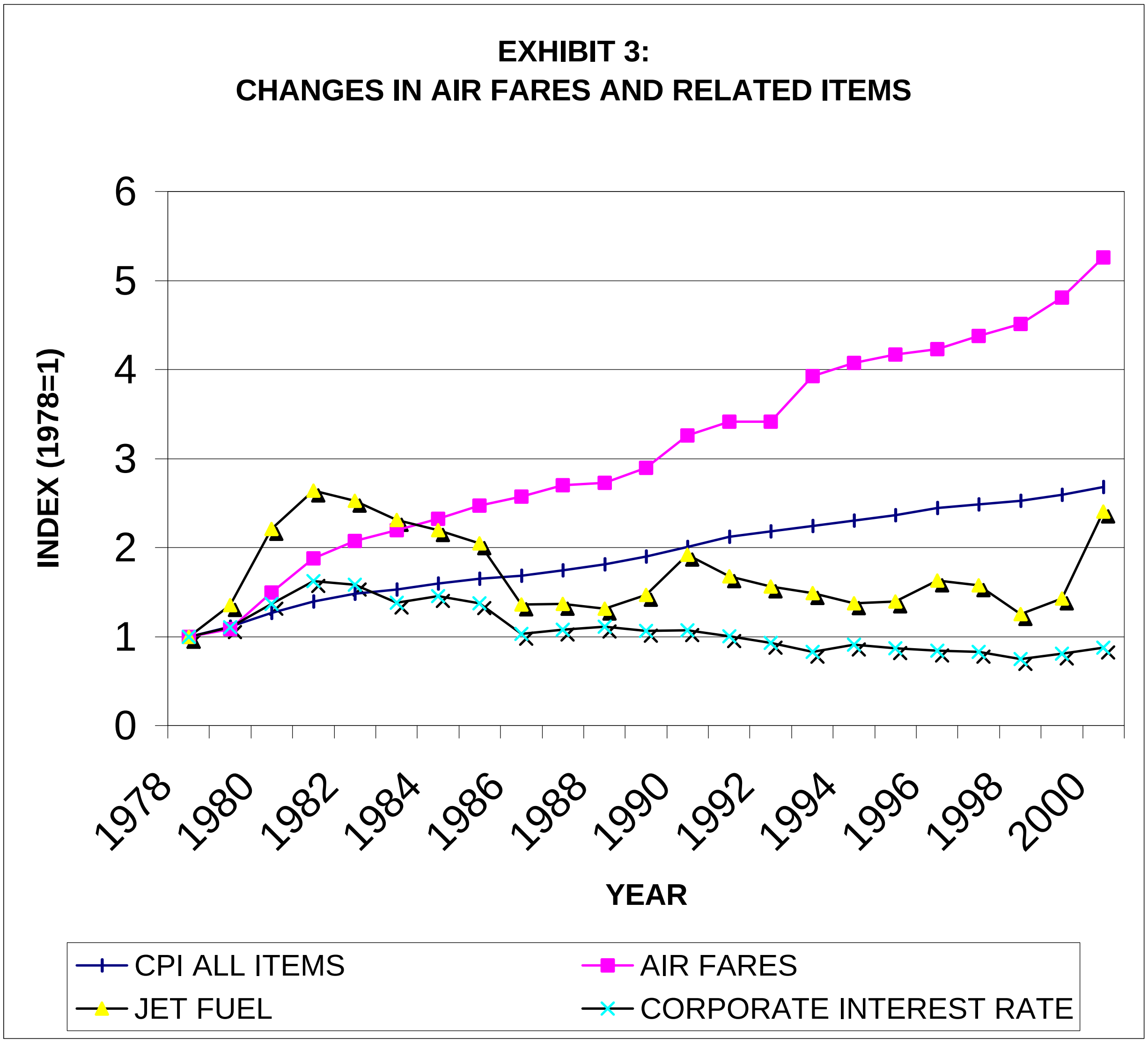
DOMINANT AIRLINES PROPOSING GREATER CONCENTRATION
WITH FORTRESS HUBS THAT EXCEED MONOPOLY STANDARD

AIRPORT	AIRLINE	DOMINANT FIRM MARKET SHARE
MONOPLY (70+ PERCENT)		
ATLANTA	DELTA	80%
CHARLOTTE	US AIRWAYS/UNITED	91
CINCINNATI	DELTA	90
DALLAS/FT. W	AMERICAN	71
DENVER	UNITED/US AIRWAYS	73
DETROIT	NORTHWEST	78
HOUSTON INTL	CONTINENTAL	83
MEMPHIS	NORTHWEST	75
MINNEAPOLIS	NORTHWEST	80
PHILADELPHIA	US AIRWAYS/UNITED	73
PITTSBURGH	US AIRWAYS/UNITED	89
SALT LAKE	DELTA	72
ST. LOUIS	TWA/AMERICAN	76
WASH. DULLES	UNITED/US AIRWAYS	74
DOMINANT FIRMS (50-70 PERCENT)		
CHICAGO	UNITED/US AIR	50
CLEVELAND	CONTINENTAL	50
MIAMI	AMERICAN/TWA	56
NEWARK	CONTINENTAL	61
OAKLAND	SOUTHWEST	68
SAN FRANCISCO	UNITED/US AIRWAYS	53

EXHIBIT 2:

THE IMPACT OF ANTI-COMPETITIVE MARKET STRUCTURE ON FARES

STUDY	RACTICE		PERCENT INCREASE IN PRICE
GENERAL MEASURES OF COMPETITION			
Dressner and Trethaway	Competition		35
GAO (1993)	Hub Concentration		33
GAO (1996)	Hub Concentration		31
DOT (1996)	Hub Concentration,	1989	19
		1994	19.7
		1995	22.1
CHANGE IN NUMBER OF COMPETITORS			
Strassman	Add one (2.7 to 3.7)		44
Hurdle (et al.)	Loss of one		20
Windle and Dressner	Add one (2-3)		17
Oum, Zhang and Zhang	Add one (1-2)		17
Borenstein (1989)	Add one (1-2)		8
DOT (2001)	Low cost competitor in Hub		41
		Short Haul Hub	54
ENTRY AND EXIT			
Dressner and Windle	Low cost (Southwest)		35
Whinston and Collins	Low cost (Peoples)		34
DOT (1996)	Low Cost (all Hubs)		35
	Low Cost (Concentrated Hub)		40
DOT (2001)	Low Cost (Hubs)		42
Joskow et al.	Any		10
GENERAL INDUSTRY PRACTICES			
Morrison and Winston (1995)	Hubbing		5.4
	Frequent Flier		7.9
	CRS Manipulation		9.4
	(Subtotal)		22.7
	Fare restrictions		23.8
	Total		46.5
Stavins (1996)	Fare restrictions		20-40



SOURCE: Bureau of Labor Statistics, *Consumer Price Index, Consumer Price Index,* CPI, Air Fares, Jet Fuel; *Economic Report of the President*, January 2001, Corporate AAA Bond Rates; Department of Commerce, *Statistical Abstract of the United States,* Airline Cost Indices, various issues.

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