

**What's Wrong with the Airline Industry?
Diagnosis and Possible Cures**

Statement of

Steven A. Morrison
Professor and Chair, Department of Economics
Northeastern University
Boston, MA 02115
617-373-2873
s.morrison@neu.edu
<http://www.economics.neu.edu/morrison/research>

and

Clifford Winston
Senior Fellow, Economic Studies Program
The Brookings Institution
1775 Massachusetts Avenue, NW
Washington, DC 20036
202-797-6173
cwinston@brookings.edu
<http://www.brookings.edu/scholars/cwinston.htm>

Hearing before the
Subcommittee on Aviation
Committee on Transportation and Infrastructure
United States House of Representatives

September 28, 2005

The Problem

From 2001 to 2004 the U.S. airline industry flew nearly 3 billion passengers. Unfortunately, it lost an average of \$13 on each one generating more than \$32 billion in losses. With losses continuing this year, it is no understatement to say that the industry has a serious financial problem.

To be sure, the airline industry has always exhibited cyclical nature because travelers' demand is sensitive to the performance of the macroeconomy yet airlines must predict this demand accurately because of the lead time required to acquire aircraft. When airlines over predict demand, which can happen for any number of reasons, they suffer losses.

Figure 1 shows the cyclical nature of the U.S. airline industry's operating profit margin for the last 67 years. The huge losses since 2000 have resulted, in our view, because the long-standing challenge of aligning capacity with demand over the business cycle has been exacerbated by the confluence of several events that have significantly reduced the industry's revenues and raised its costs.

Evidence on the Sources of the Industry's Losses

An airline's profits depend on its revenue and its costs. Revenue depends on what a carrier is able to charge for its flights and the number of passengers it carries. Costs depend on, among other factors, the price of fuel and the wages and salaries of employees. What has happened to these components of profit during the past several years?

Number of passengers

The good news is that, as shown in figure 2, traffic (revenue passenger miles) in 2004 exceeded its previous peak in 2000. Negative traffic growth is a relatively rare occurrence in the airline industry—the last downturn is only the fifth occurrence of a negative year over year traffic growth since record keeping began in 1930. However, what is unprecedented about this drop in traffic is that it took four years for traffic to rebound.

The recent downturn in traffic began in February 2001, one month before the recession that began in March 2001 (and ended in November 2001). The downturn was exacerbated by the aftermath of the September 11, 2001 terrorist attacks. Traffic growth has subsequently returned, but why? One reason is that GDP is growing. Since its trough in 2001:3, real GDP has been growing by more than 3 percent per year. Another reason is more travelers are feeling that flying is safe enough for them to travel by air. Still another important reason is that the airlines responded to the initial drop in traffic by reducing fares to induce people to fly.

Fares

As shown in figure 3, fares fell by 25 percent from 2000 to 2004 after adjusting for inflation. This substantial decline in fares has occurred only one other time in the United States, namely after capacity restrictions were eased following the end of World War II.

Because of the dramatic decline in air fares, the rebound in traffic masks underlying changes in passengers' demand for air travel. Our "back-of-the-envelope" calculations indicate that, under reasonable assumptions about the sensitivity of air travel to fare changes, in 2004 prevailing fares generated 17 percent less traffic than those fares would have generated in 2000 (with a plausible range between 6 and 25 percent).

What has caused the change in passengers' underlying willingness to pay for air travel? Plausible reasons are that the airline "product" has changed. Increased security leads to earlier arrival at airports and longer trip times; fuller planes—over 75 percent full on average, the highest since right after World War II—make traveling more unpleasant. And alternatives to air travel, teleconferencing and rail travel—at least in the Northeast Corridor—have become more attractive options.

Consider as an illustration the effect on air travel of required earlier arrival at airports. If passengers must now arrive at their origin airport one-half hour earlier than previously, then, under plausible assumptions of relevant parameters, travel could decline 7 percent (a plausible range is 3 percent to 11 percent).

In addition to these considerations, the traveling public, especially the (formerly) lucrative business travelers, are less willing to pay fares many times higher than their fellow leisure travelers.

Fuel

In addition to unanticipated reductions in travel demand, the industry is vulnerable to unanticipated increases in costs. Jet fuel, a necessary input into the production of air transportation, accounts for between 10 and 30 percent of airlines' costs, and its price can fluctuate widely from year to year as shown in figure 4.

Fuel price increases can be a significant drain on airline profits. Relative to the (nominal) price of jet fuel that prevailed in 2000—the last "good" financial year for the airline industry (and one in which the price of fuel was relatively high by previous historical standards)—in 2003 and 2004 the industry lost an estimated \$8+ billion dollars due to the higher price of jet fuel. Given higher prices in 2005, especially the post-hurricane Katrina price spike, the industry is estimated to lose an additional \$16 billion this year from the increased cost of fuel alone.

Labor

Labor represents the biggest single category of airline costs, currently about 28%. "Legacy" airlines, by definition, are those that existed during the period when airlines were regulated (through 1978). In that environment, there was so-called "rent sharing," as unionized workers sought, and received, a share of the "rents" (profits) that the regulated firms earned. Low-cost carriers emerged with the advent of deregulation in 1978 and adopted a more entrepreneurial/cooperative style of labor relations that resulted in lower pay and/or higher worker productivity than legacy carriers were able to achieve with their work force. The expansion of low-cost carriers has put increasing pressure on legacy carriers to lower their labor and other costs. Since 2000 food and beverage costs per revenue passenger mile have fallen by 35 percent and travel agent commissions (per available seat mile) have fallen by 69 percent. But since labor is the largest category of airline costs, it too has been the target of cost cutting (and enhanced productivity) by legacy carriers, through negotiation as well as in bankruptcy, as they seek to reduce their costs to compete with low-cost carriers.

Given the demand and cost shocks, the U.S. airline industry finds itself with more capacity than can be profitably supported at the fares that passengers are willing to pay. And in this environment it is difficult, if not impossible, to sustain fare increases to cover increased costs, such as for fuel, causing several legacy carriers to seek bankruptcy protection.

Competitive Environment

As noted, low-cost carriers have put increased pressure on “legacy” airlines to reduce their fares and their costs. This pressure has become intense as low-cost carriers have increased their share of the nation’s airline traffic. As shown in figure 5, in 2004 low-cost carriers competed on routes between metropolitan areas that accounted for over 50 percent of the nation’s domestic air travel. And one study (Morrison, 2001) found that one low-cost airline—Southwest—lowered fares on routes accounting for more than 90 percent of domestic air travel.

What Can Be Done to Improve the Industry’s Financial Performance?

It may be surprising to some that the financial problem that the industry is currently encountering is broadly associated with the industry’s long-term adjustment to airline deregulation. Airline deregulation was based on the correct belief that enhanced and unfettered market competition and enlightened public policy would benefit the traveling public. But it is now clear that the airline industry has needed and still needs time to adjust to its deregulatory freedoms by ridding itself of remaining cost inefficiencies, doing a better job of matching capacity with demand, and anticipating and responding to changes in traveler preferences.

Both the market and enlightened public policy can enhance industry financial viability. But we believe that policymakers should rely on the market to do the bulk of the work.

The fundamental problem is that there is excess high-cost capacity in the industry. Competition among air carriers will reduce such capacity and no doubt may lead at least one if not more carriers to contract, undergo liquidation, or be absorbed by another carrier. But successful carriers—that is, those that are cost efficient and responsive to passenger preferences—will be poised to pick up any slack. Indeed, travelers will gain if legacy carriers make the required changes to be effective competitors in the new environment or are replaced by lower cost carriers.

We have found in a recent working paper (Morrison and Winston, 2005) that by 2000, low-cost carriers tended to enhance traveler welfare much more than legacy carriers enhanced traveler welfare. Thus, airline competition is working in the sense that those carriers that enhance traveler welfare are rewarded with higher profits. This is an important finding because it indicates that policymakers should not intervene in the competitive process.

However, Congress can help carriers to lower costs and improve traveler welfare, thereby stimulating demand, by reducing wait times at security checkpoints. Current bankruptcy policy gives carriers a chance to remain as competitors—which they can only do in the current environment by lowering costs. Although carriers in bankruptcy do gain a cost advantage from lower capital costs, they also suffer a diminished reputation among travelers and potential investors. Moreover, whatever cost advantage they gain is certainly not enough by itself to close the gap between their costs and the costs of low-cost carriers. Thus, we see little urgency to change current bankruptcy laws. In previous work (Morrison and Winston, 1995), we found that the effect of healthy carriers competing against bankrupt carriers was mixed—for some bankruptcies, competing carriers were helped by competing against a weakened competitor; in other cases healthy carriers were hurt by such competition. On net, the effects did not merit a reevaluation of current policy.

We would like to hope that the airline industry’s eventual adjustment to recent revenue and cost shocks would signal the end of its adjustment to airline deregulation. Of course, we cannot be certain. But we can be certain that the industry will only become stronger as it strives to become more efficient while benefiting the flying public.

Figure 1

**Operating Profit Margin (All Services)
U.S. Scheduled Airlines**

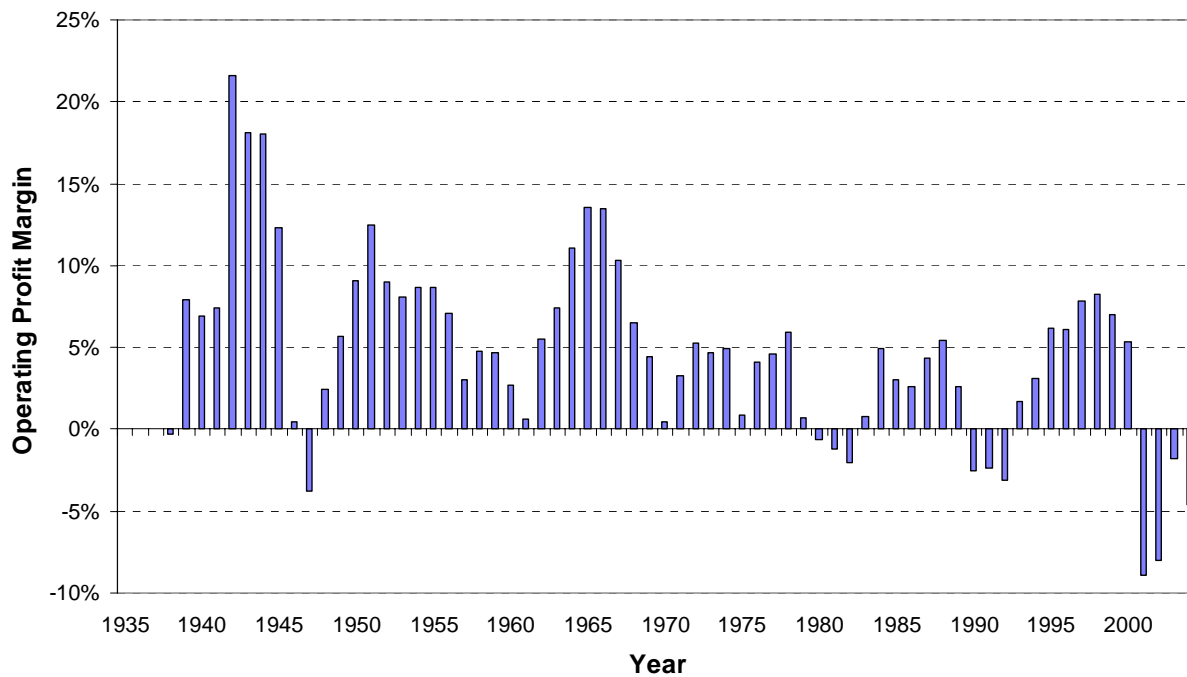


Figure 2

U.S. Passenger Airline Industry Output

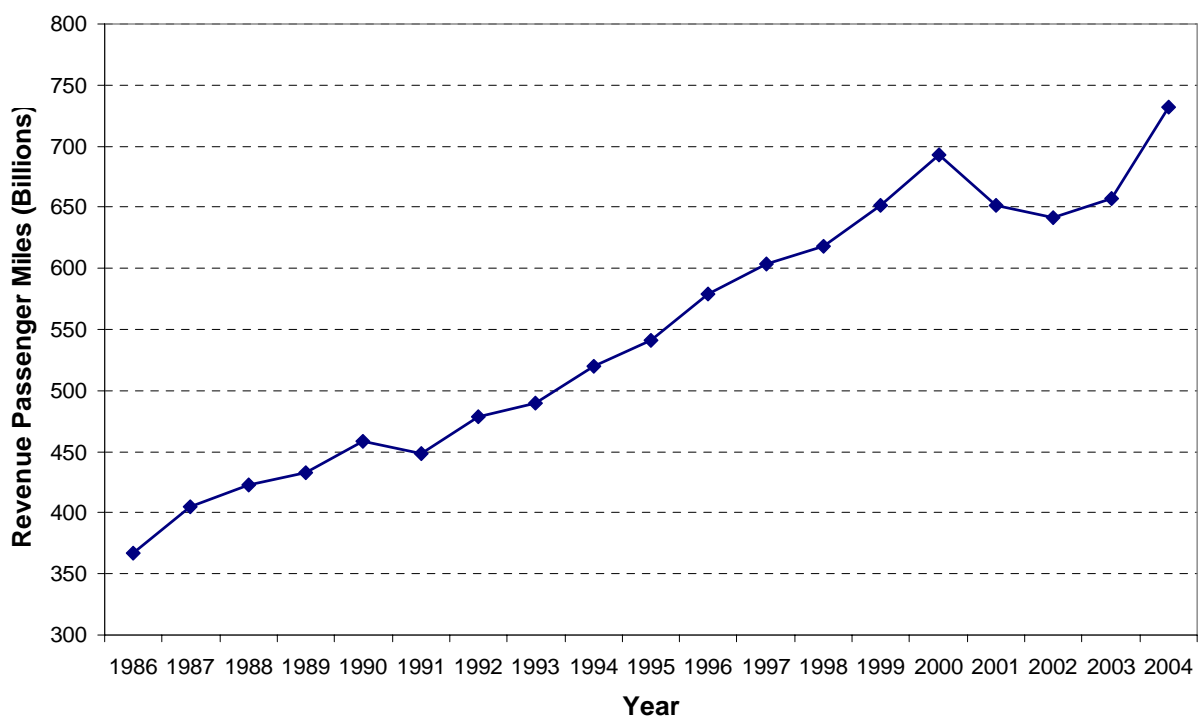


Figure 3

Domestic Airline Yield Adjusted for Inflation (2004 dollars)

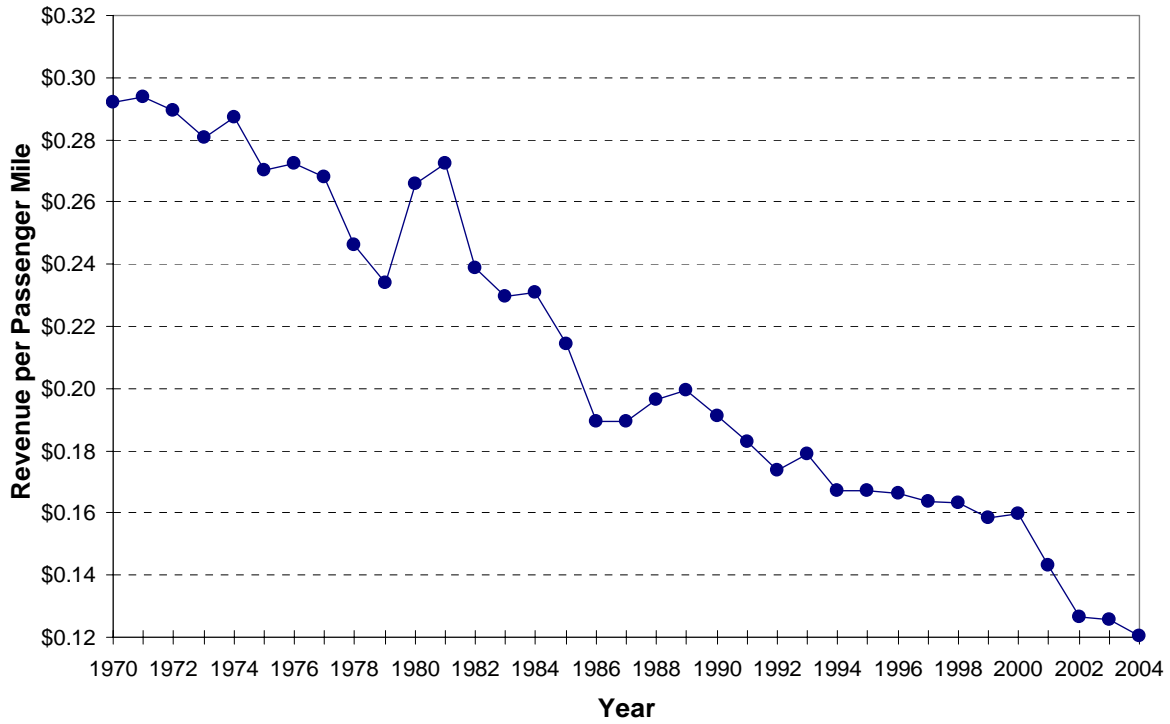


Figure 4

Average Price of Jet Fuel

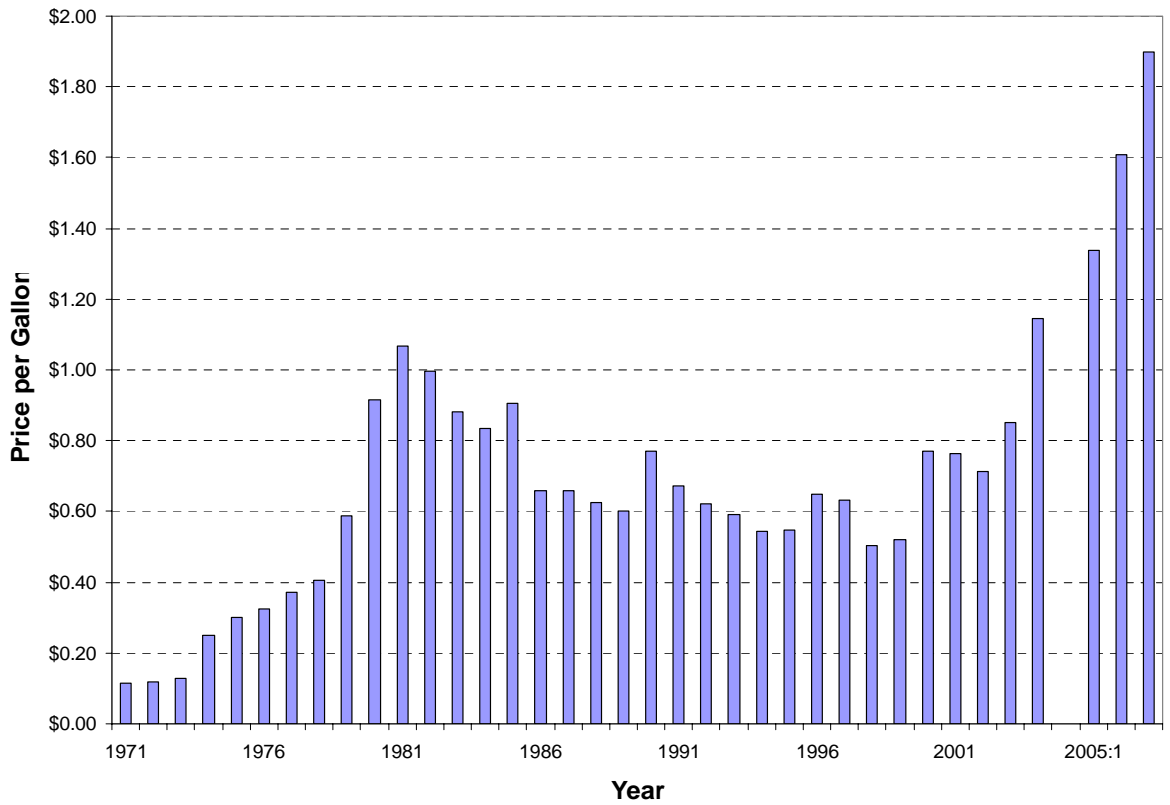
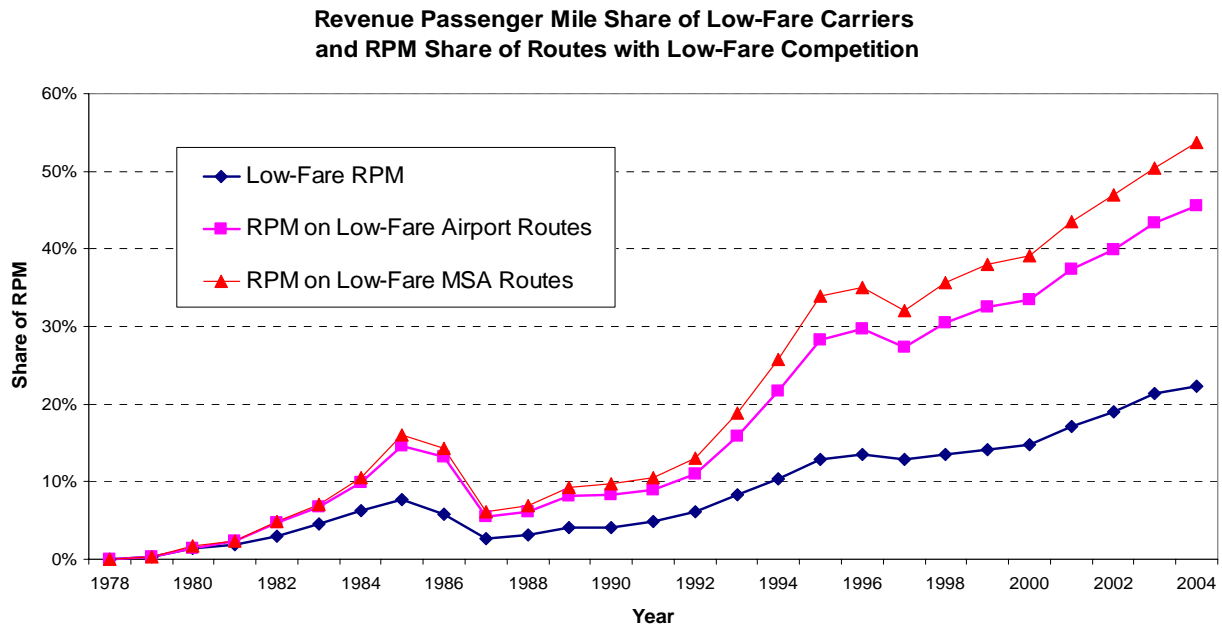


Figure 5



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