Policy Study

No. 124
August 1990

# AIRPORT PRIVATIZATION
## What the Record Shows

by
Robert W. Poole, Jr.

## I. EXECUTIVE SUMMARY

Much of the debate over airport privatization has consisted of unsupported claims--on both sides of the debate. This paper reviews the record of airport privatization in practice, to shed some light on the questions most often raised by proponents and opponents. A number of airports have been sold, leased, or managed under contract. Both new terminals and entire new airports have been developed by private enterprise.

One claim by proponents is that turning existing airports into for-profit businesses will stimulate creation of new airports. In fact, this is happening in Britain. Since privatization of the major London and Scottish airports, one new private airport has opened, two other new-airport projects have been announced, and major private-sector expansions of other airports have also been announced.

Other issues about which conflicting claims have been made are addressed in this paper:

Capital Investment: Since privatization, Britain's BAA has doubled its annual level of capital investment, modernizing terminals at Heathrow and Gatwick, building a new terminal at Stansted, adding hotels at Heathrow and Gatwick, and planning construction of a high-speed rail line between Heathrow and central London.

Cost Savings: The evidence indicates that privatization leads to lower operating costs and greater productivity. BAA output per employee has increased significantly (while total employment has increased). And contractor-operated Burbank airport has one of the highest levels of productivity among U.S. airports.

Pricing Policies: Privatized airports might well shift toward market pricing of services to airlines (landing, parking, etc.), similar to BAA's practice. While this could have dramatic effects on efficient use of airport capacity, analysis indicates it would have minimal effects on ticket prices, since airport costs are a small fraction of airline operating costs. Even if airport charges to airlines were to double under privatization, the impact on fares would be only three percent.

Capital Costs: Private firms are able to build new facilities in as little as half the time of public-sector projects, via simplified procurement processes and incentives for lower costs. Financing costs can be competitive with those in the public sector, even if tax-exempt bonds are not available to privatized projects.

Noise Abatement: Private airport operators, both in Britain and the United States, have an excellent track record in reducing noise exposure around airports. The ability to charge noise-related fees for landings and take-offs provides a way of both encouraging the use of quieter planes and providing funds for noise-mitigation efforts.

Serving Passengers: Customer satisfaction at BAA's airports has increased since privatization, as has passenger spending on goods and services. There is large untapped revenue potential in airports as shopping, recreation, and business locations, which the private sector would be likely to develop.

Regulation: Because airports often have elements of monopoly, some have urged that they be regulated like utilities (as the British are doing). Yet the British failed to take advantage of potential competition among London-area airports and also have less-powerful antitrust laws than the United States. Several indirect measures of this type may be sufficient to deal with potentially anti-competitive behavior by airport companies, in preference to costly direct regulation. Pricing freedom, a ban on airline ownership, competitive divestiture in multi-airport metro areas, and vigorous antitrust enforcement should suffice to keep entry open and prevent monopolistic practices by privatized airports.

One further issue is that of "taking profits off the airport." Those raising concerns about privatization have sought to portray this as a departure from past FAA practice. In fact, the FAA has permitted several cities and one port authority to lease their airports to private firms, under contracts in which those firms routinely make profits for their shareholders. (Those airports also receive federal grants, just like their government-run counterparts.) So there would be nothing new about permitting private owners to make profits from airports.

## II. Criticisms of Proposed U.S. Airport Privatization

In response to the controversy over Albany, New York's 1989 proposal to sell or lease its airport to a private consortium, Transportation Secretary Samuel K. Skinner directed the Federal Aviation Administration to have the issue addressed by the Aviation System Capacity Task Force, headed by J. Donald Reilly. The Reilly task force's Privatization Working Group split into two factions on the issue, and was unable to reach an overall consensus.

The anti-privatizers, led by certain airline and private-plane (general-aviation) interests, argued that privatization of airports would increase costs to users and possibly restrict access to general aviation. The other group, led by companies interested in being in the airport business, argued that privatization would lead to efficiencies and to increased investment in capacity additions.

Some degree of consensus was achieved, acknowledging that private firms can and do legally manage and operate airports already, but that the issue requires further study by the FAA. It was also agreed that the federal government ought to continue to ensure airport safety and access in the event of privatization, and that each proposed privatization should be evaluated on its own merits, with extensive consultation with user groups.

In terms of the forms which privatization might take, there was general support for the idea that private firms might continue to manage airports under contract and to build and operate new airports "which increase existing capacity and do not eliminate existing airports." But the real sticking point concerned the possible sale or long-term lease of existing airports, and creation of major new privately owned terminal facilities.(1) This type of privatization raises the two key issues of the "taking of profits off the airport," and the protection of the public interest in the airport.

Several submissions to the Working Group advanced the position that privatization (generally meaning the sale or long-term lease of existing airports) should only be considered if it can be "proven to result in improved safety, greater efficiency, and lower costs for the shipping and traveling public" (2) or "where it can be demonstrated that privatization will add capacity and lower user cost" (3). Opponents also raised concerns over whether private firms would be able to deal as well as government with such issues as noise and other environmental impacts. And much concern was raised over the monopoly aspects of airports in many cities.

While many of these points have been elaborated in various ways, the following list covers the major questions that have been raised during the 1989-90 debates on this issue:

1. Would privatization lead to capacity-increasing investment in airports?

2. What evidence is there for lower operating costs and greater efficiency with private ownership and operation?
3. What impact would there be on the prices charged to airport users?
4. Would capital costs be higher, given lack of access to tax-exempt bond funding?
5. How would private airports deal with noise mitigation?
6. Would private operators provide better or worse service to airline passengers using their airport facilities?
7. What kind of regulations would be needed to deal with potential monopoly problems?

Much of the debate has consisted of trading allegations back and forth on both sides of each of these questions. Yet for each of these issues, empirical data are available from the privatized airports described in Section III. These data were assembled by the Reason Foundation and are used to address these seven questions in the following sections.

## III. Airport Privatization to Date

Five different forms of airport privatization have taken place thus far: the sale of existing airports, long-term leases of airports to private firms, contract operation of airports, creating new terminal facilities by build-operate-transfer consortia, and the creation of new airports as private business ventures. Each offers lessons for US policymakers.

### A. Sale of Existing Airports

The best-known privatization to date is undoubtedly the British government's 1987 sale, via public stock offering, of British Airports Authority, now known as BAA. The company owns and operates the three large London airports (Heathrow, Gatwick, and Stansted) and the four main Scottish airports (Aberdeen, Edinburgh, Glasgow, and Prestwick). The initial offering valued the company at $2.5 billion, and by spring of 1990, the market valuation had grown to $4 billion.

Less well-known is a second British privatization, the recent purchase of a 76% interest in Liverpool's Speake airport by British Aerospace for $21 million. While the airport currently has only a small degree of airline service (it is only 20 miles from Manchester), BAe plans to turn the airport into a $2 billion wayport and industrial airport, to handle the expected continued growth which won't be able to be accommodated at Heathrow, Gatwick, and Manchester. Its plan calls for new terminals and runways designed to handle 200,000 air transport movements (ATMs) per year. BAe will initially develop a business park on 450 acres of the 4,000 available acres.(4)

Several other planned airport sales have been announced. The Danish government plans to sell Copenhagen's Kastrup airport, with the first 25% of the shares to be offered during 1990. The New Zealand government plans to sell its three (already-corporatized) international airports at Auckland, Christchurch, and Wellington; studies are under way to work out

the details. In addition, the fourth London airport, Luton, has been put on the market by its municipal owner; the Luton council is being advised by County NatWest, the banking firm which managed the initial public offering of BAA.

Belgium has partially privatized the Brussels airport, by setting up the Brussels Airport Terminal Company. BATC is 52% owned by private investors (mostly banks) and 48% by the government's airport and airways agency. The agency contributed the old terminals and land at the airport, while the private parties will provide the capital for a new, larger terminal. The government may sell some of its 48% to the public, but may never own less than 30%.

A number of other governments are considering selling major commercial airports. Among those studying the issue are France, Malaysia, Singapore, and South Africa.

B. Long-term Leases

Although no commercial airport in the United States has yet been sold to private enterprise, several sizeable airports have been leased to private firms.

Rickenbacker field in Ohio is a former Air Force base which has been converted to civilian use. The land and facilities have been leased for 70 years to Turner Construction Company. Turner and Diversified Investors created Rickenbacker Development Corporation to attract business investment for an industrial airport concept. Their first major project was a $70 million hub facility for Flying Tigers (subsequently mothballed following that airline's merger into Federal Express). Airport operations are managed by Lockheed Air Terminal, under a several-year management contract.

A second example of a long-term lease is the Morristown, New Jersey airport. In 1982, the municipality leased the airport for 99 years to D. M. Airport Developers, Inc. The company took over the airport's debt, agreed to refurbish the run-down facility, and contracted to pay rent plus a percentage of certain sales--in exchange for the right to develop office facilities on the property. As a condition of the lease, the city required D. M. to provide professional airport management; consequently, the airport is operated by Avco Services. The airport today is solidly in the black, with some 250,000 general-aviation operations per year.

Another major general-aviation airport operated under lease is Teterboro, New Jersey. Its owner, the Port Authority of New York & New Jersey, leased it to Pan Am World Services for 30 years in 1970. As is the case with Morristown, the lessee (in this case, Pan Am) makes the relevant grant applications to the Federal Aviation Administration (FAA), and both airports routinely receive federal grants, despite being operated by private enterprise under long-term lease agreements. World Services pays the Port Authority an annual fixed fee plus a percentage of the gross revenues. To the extent that it keeps costs under control, therefore, World Services keeps a

percentage of each year's revenues as profit.

Two airports with commercial airline service are also operated by the private sector under lease-management contracts. In 1986 the city of Atlantic City signed 10-year lease agreements (with the option for a 15-year extension in each case) with Pan Am World Services for the operation of its two airports, Bader Field and Atlantic City International. The former has commuter airline operations, in addition to general aviation, while the latter has both commuter and larger jet airliner operations (USAir Fokker 100s). At Atlantic City International, World Services is leasing some 83 acres, encompassing the terminal, commercial aircraft apron, parking lots, and other civilian activities while the FAA (which has a substantial facility at this airport) owns and operates the actual runways and the tower. Under both lease agreements, Atlantic City receives either a base amount or a percentage of the airports' gross revenues, whichever is greater.

C. Contract Operation

The best-known U.S. example of a large airport being operated by a private firm is the Burbank Airport in California. Owned by an airport authority of the cities of Burbank, Glendale, and Pasadena, the airport has been operated since the authority's creation in 1978 by Lockheed Air Terminal. Burbank ranks 59th in size among U.S. airports, as measured by annual passenger enplanements. It receives federal grant funds on the same basis as other air-carrier airports, despite being operated by a private contractor.

Several other air-carrier airports are operated by private firms. Lockheed also operates Stewart International, a former Air Force base north of the New York City metro area. Its first major commercial carrier, which began service early in 1990, is American Airlines. Both New York State (which owns Stewart) and the FAA are encouraging other airlines to begin service there. In addition, the Westchester County/White Plains (NY) Airport is operated under contract by Pan Am World Services. It is served by several airlines, as well as handling extensive general aviation traffic.

Contract operation is also well-known in Britain. BAA (through its Airports UK subsidiary) operates the Biggin Hill, Exeter, and Southend airports under contract; it also recently won a contract to operate the Gibralter airport.

D. Build-Operate-Transfer

The "Build-Operate-Transfer" (B-O-T) concept involves government contracting with a private consortium to finance, design, build, own, and operate a major facility, with title eventually reverting to the government once the investment has been paid for. Well-known in the highway, bridge, and power plant field for several decades, B-O-T has recently begun to be used to create new airport facilities.

Toronto's Terminal 3 is the first major project of this

type. The team of Huang & Danczkay and Lockheed Air Terminal are developing this $300 million, 24-gate terminal at the Lester B. Pearson International Airport, which Lockheed will then operate. The project includes freeway access roads and runway improvements, with a total cost of nearly $500 million.

In 1989, BAA joined Canadian Airports, Ltd., a joint venture with Toronto Dominion Bank, the Ontario State Pension Board, and a real estate group. In July 1990 they announced an unsolicited proposal to Transport Canada to finance, expand, and operate the existing Terminals 1 and 2 at Pearson International.

In Turkey, a Lockheed-led team (including several Turkish firms) is developing a $200 million 18-gate terminal at Ataturk International Airport in Istanbul. Upon its 1992 completion, Lockheed will operate both the terminal and the airport itself under contract.

In England, a public-private consortium called Euro-Hub has been formed to develop and operate a large new terminal at the Birmingham airport. Similar consortia are expected to develop the new airports in Hong Kong and Macao.

E. Creating New Airports

One of the basic premises of airport privatization as a national policy is that putting existing airports on a commercial basis will attract investment into the airport business, ultimately leading to the creation of entire new airports. That premise is being borne out in Britain.

The first such airport to be created opened its doors in 1987. London City Airport was created specifically to serve short-take-off-and-landing (STOL) aircraft, such as the Dash 7. The $52 million project is located in the Docklands area of London, the center of a $7 billion office and residential development area just six miles from the City of London. Not yet a commercial success, the airport's fortunes depend on attracting additional airline service and obtaining permission for operations by the BAe 146 jetliner in addition to the turboprop Dash 7.

A second new airport project has been announced for Sheffield, in the North of England. Budge Mining plans to develop the $170 million airport, to begin construction in 1992. It will include a major business park adjoining the M1 motorway. Budge has announced that the airport will be managed by Airports UK, a subsidiary of BAA.

Private firms are also planning major property expansions of two other British airports. At Newcastle, European Land plans a $1.275 billion business park and residential complex. And the private owner of Southampton airport recently sold it to BAA, which plans to add a $500 million business park and hotel, as well as a building a new terminal and upgraded facilities.

Finally, plans were announced in March 1990 for a $13 billion privately built airport on Crown land at the Thames

estuary east of London. Covell Matthews Partnership International conducted the feasibility study for an undisclosed group of U.K. and international investors. The airport would provide major new capacity for the booming southeastern part of England, and would also break BAA's near-monopoly on international airports in the greater London area.

In the entire United States, thus far there has been only one new airport created as a quasi-private project. Alliance Airport, which opened in December 1989, was developed by the Perot Group and the City of Fort Worth. The Perot Group assembled the 3,400 acres of land and dedicated 418 acres to the City for runway/taxiway use, and the FAA provided a $31 million grant for construction, and is providing the control tower and landing aids. The remaining property is all privately owned, and offers direct aircraft access to the airport's taxiways, if desired. As an Industrial Airport, Alliance serves business and private aviation, relieving congestion at DFW and Love Field.

## IV. Capacity Additions/Investment

### A. Investment at BAA Airports

The most important evidence on the question of capital investment comes from BAA, the only case thus far of large air-carrier airports being sold to private investors.

Although BAA is privately owned, additions to landside (terminals) and airside (runways) capacity in Britain require government approval. In particular, airport capacity in the Southeast of England (London area) is governed by the government's Traffic Distribution Rules (TDRs), established by the 1986 Airports Act. Under these rules, there can be no further addition of international passenger service at Heathrow and no charter flights at all, and no general aviation or cargo operations during peak hours. The intent was to direct growth to Gatwick, and later to Stansted. While the government is considering changing or abolishing the TDRs, to date they have been a major factor in directing BAA's investment decisions.

Overall, the TDRs constrain the addition of any new runway in the Southeast until sometime after 2003; instead, capacity increases are being made on the landside. BAA opened its new Terminal 4 at Heathrow in 1986, after which it refurbished and expanded Terminal 3. A second (North) terminal at Gatwick was opened in 1988, and will be expanded in a second phase. A new terminal is under development at Stansted, planned for opening in 1991. If it is expanded, as BAA plans, the London airports are expected to have sufficient capacity through the late 1990s.

Figure 1 shows total BAA capital investment for the financial (fiscal) years ending March 30, 1980 through 1990. Capital spending has more than doubled in the three years following privatization.(5)

In addition to the terminal expansion projects noted above, BAA is also investing in improved service to passengers. One of

the most dramatic of these projects is the Heathrow Express Rail Link. This L235 million project will serve an estimated 6 million people per year. Linking all four terminals with downtown London's Paddington Station, the line will supplement the congested Piccadilly Line (part of the London Underground) which now serves Heathrow. Instead of nearly an hour, the new line will cut the journey time to central London to just 16 minutes.

The project is a joint venture between BAA and British Rail. BAA is investing 80% of the cost, and will operate the trains itself, using an existing BR main line from Paddington to Hayes, near the airport. The trains and station platforms are being designed to accommodate people with luggage as well as wheelchairs. On-board display screens will provide departing flight information on outbound trains. The line is scheduled to be in operation by 1994.

BAA has also diversified into the hotel business. BAA Hotels Ltd. plans to develop 30 hotels over the next five years. Two four-star Sterling Hotels will open this year, one at Heathrow and one at Gatwick. Each will be connected by walkway to a terminal (Terminal 4 at Heathrow, North Terminal at Gatwick). And a medium-priced Harlequin Hotel is opening this summer at Stansted.

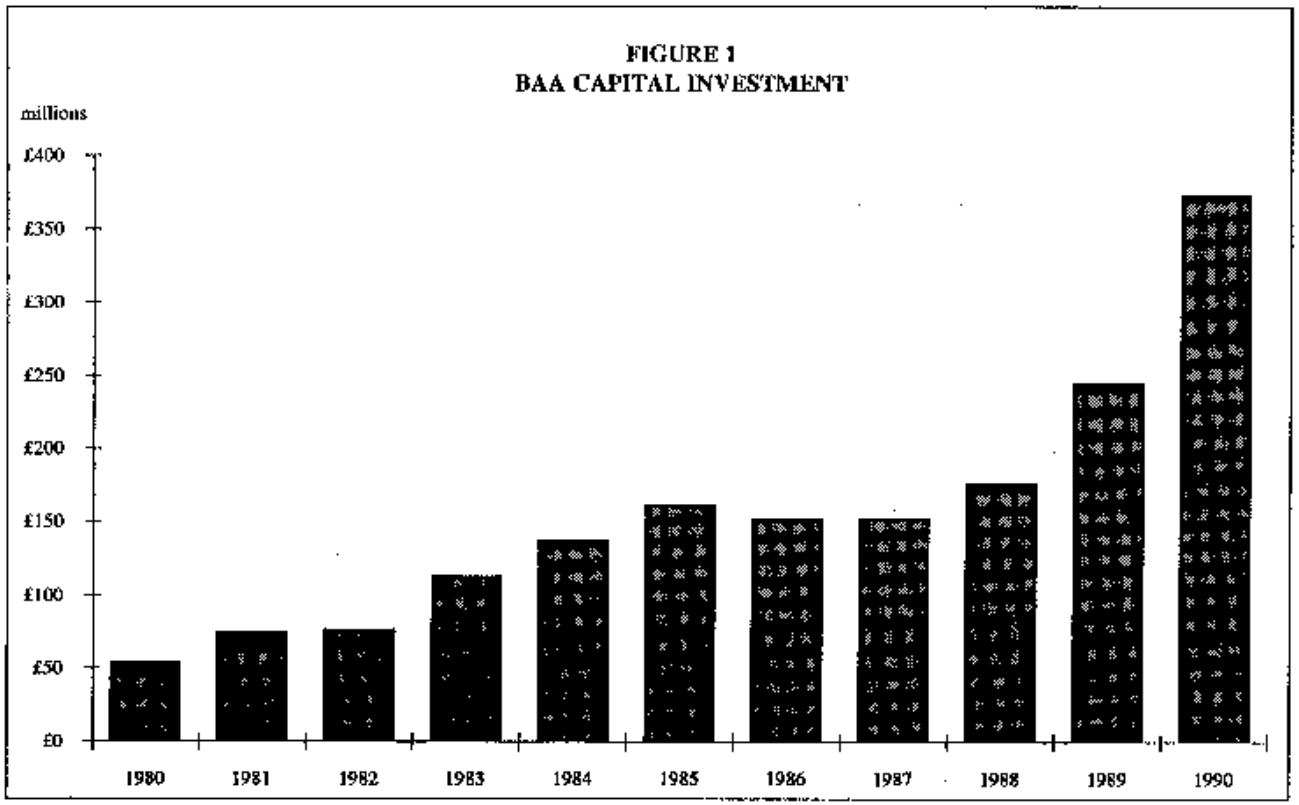
B. Investment at Lease-Managed Airports

Two prominent examples of airports leased to private owners are the busy general-aviation airports of Morristown and Teterboro, New Jersey.

Morristown has leased its airport to D.M. Airport Developers, Inc. since May 1982 (for a 99-year term). Under municipal operation, the airport had consistently operated at a loss and was in run-down condition at the time of the agreement. During the first three years, D.M.'s contract manager, AVCO, carried out an extensive renovation of the airport, investing some $350,000 in rebuilding and replacing the inoperative airport lighting system, resurfacing and grooving the main runway, and refurbishing the snow-removal and maintenance vehicles. (The airport won the AAAE's Balchen Certificate in Snow & Ice Removal in 1985.) In 1984-85, with the aid of a federal grant, the airport added a new holding apron to relieve runway congestion, installed a visual approach slope indicator system, and installed new signage. Today, the airport is considered a model operation.

The Teterboro airport was leased in 1970 by its owner, the Port Authority of New York & New Jersey, to Pan Am World Services, Inc. for 30 years. Since the lease was signed in 1970, some $29.2 million has been invested in the airport. World Services invested $13.7 million of that total, comprising $9.6 million in new hangars and improved facilities and $4.1 million as the sponsor's share of federal grant-supported airside improvements. Another $15.5 million has been invested by tenants, primarily in hangar facilities. Under PA operation, Teterboro had been losing $300-400,000 per year. The airport

**FIGURE 1**
**BAA CAPITAL INVESTMENT**



has operated in the black since 1973, with World Services paying the PA an annual fee plus a percentage of the gross revenues.

C. Proposed Private Investment at Albany Airport

The proposal by Lockheed Air Terminal and British American, Ltd. to buy or lease the Albany Airport involved a substantial investment in increasing that airport's capacity. A two-phase expansion of the small and inadequate terminal was proposed, bringing enclosed passenger loading bridged (jetways) to the airport for the first time. The initial 27-gate addition (13 jetway gates and 14 commuter) would add 233,000 sq. ft. to the existing terminal, as well as double-decking the arrival/departure roadway and adding a multi-level parking facility. The terminal expansion (phase 1) alone would be a $106 million project, and would be completed within three and a half years.

LAT/BA also proposed constructing a 250-room hotel plus office, warehouse, and service-center facilities worth another $69 million on airport property. In addition, BA proposed to invest $75 million in office and retail facilities in its British American Plaza, adjacent to the airport.

V. Operating Costs and Productivity

Does the private sector's need to earn a profit lead to lower operating costs and increased productivity? Data are available from BAA's experience as an airport owner/operator, and also from Lockheed Air Terminal's experience as a contract operator.

One basic measure of productivity is output per employee; output is often measured by revenue generated. Figure 2 shows BAA's labor productivity by this measure, both in nominal and in real (corrected for inflation) terms. By either measure, productivity increased sharply upon privatization in 1987, though it had been trending upward for the previous four years as BAA was getting ready to be privatized. Figure 3 shows another measure of productivity: the number of passengers handled per employee each year. That measure, too, has trended steadily upward--while total employment has grown very slightly since 1985.

How well is BAA keeping its costs under control? Figure 4 shows the trends in inflation-adjusted operating expenses. On a per-employee basis, these costs have gone up by 14.6% over the past seven years--an annual average real cost increase of just 2%. On a per-passenger basis, however, operating expenses have trended steadily downward, declining by 18% in real terms since 1983.

In the United States, figures for contractor-operated Burbank Airport were compared with those of four other airports with comparable passenger volumes. All five have annual enplanements of between 900,000 and 1.9 million (compared with 1.4 million for Burbank). As can be seen in Figure 5, Burbank's more than 18,000 enplanements per employee is three times the

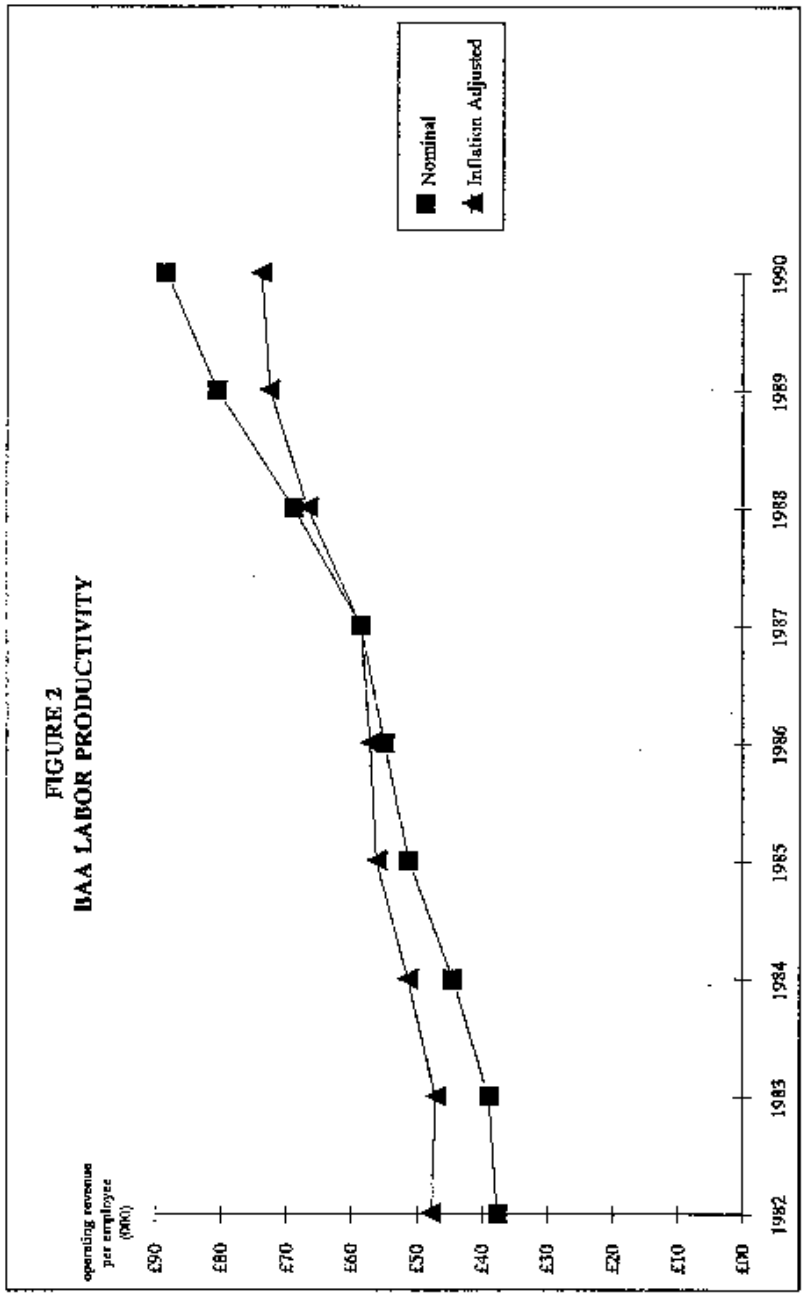


FIGURE 2
BAA LABOR PRODUCTIVITY
operating revenues per employee (000)
£90
£80
£70
£60
£50
£40
£30
£20
£10
£00
1982
1983
1984
1985
1986
1987
1988
1989
1990
Nominal
Inflation Adjusted

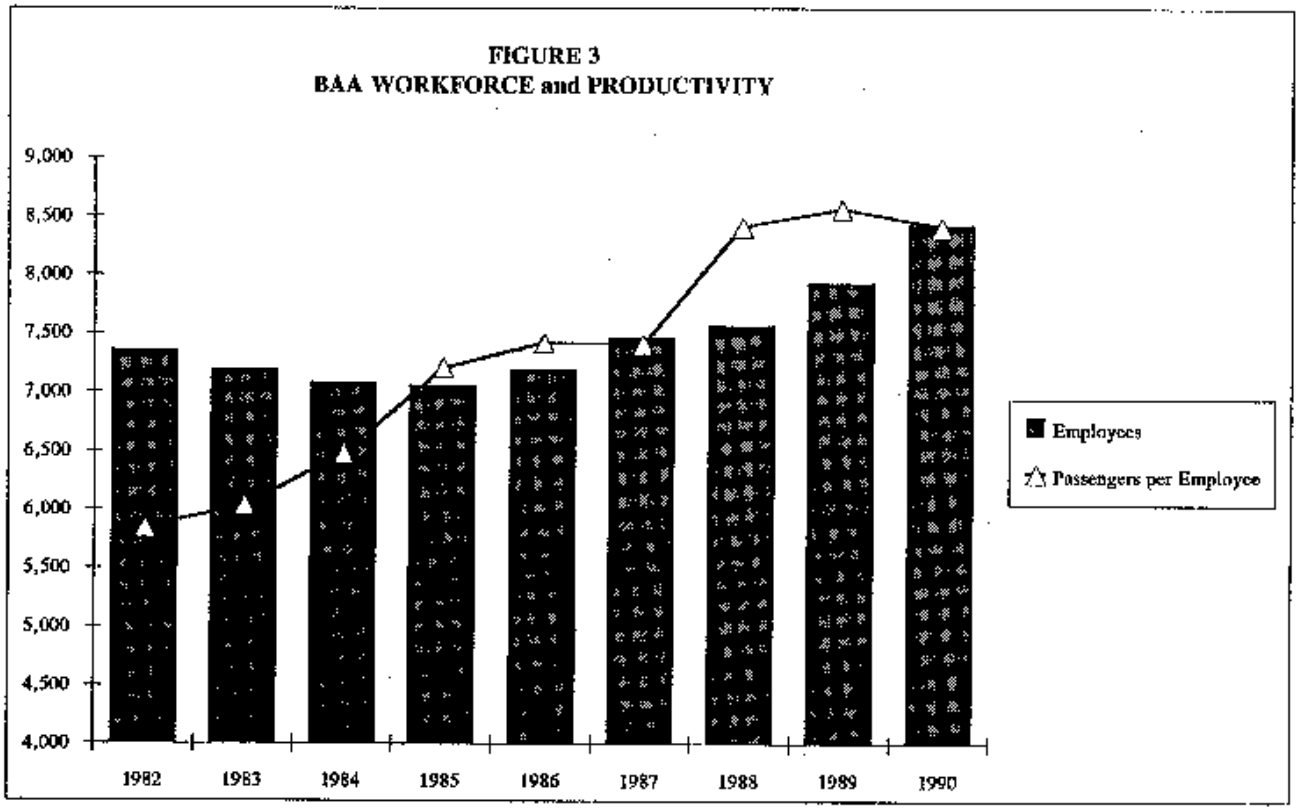


FIGURE 3
BAA WORKFORCE and PRODUCTIVITY
9,000
8,500
8,000
7,500
7,000
6,500
6,000
5,500
5,000
4,500
4,000
1982
1983
1984
1985
1986
1987
1988
1989
1990
Employees
Passengers per Employee

**FIGURE 4**
**BAA UNIT COSTS**
**(inflation adjusted)**

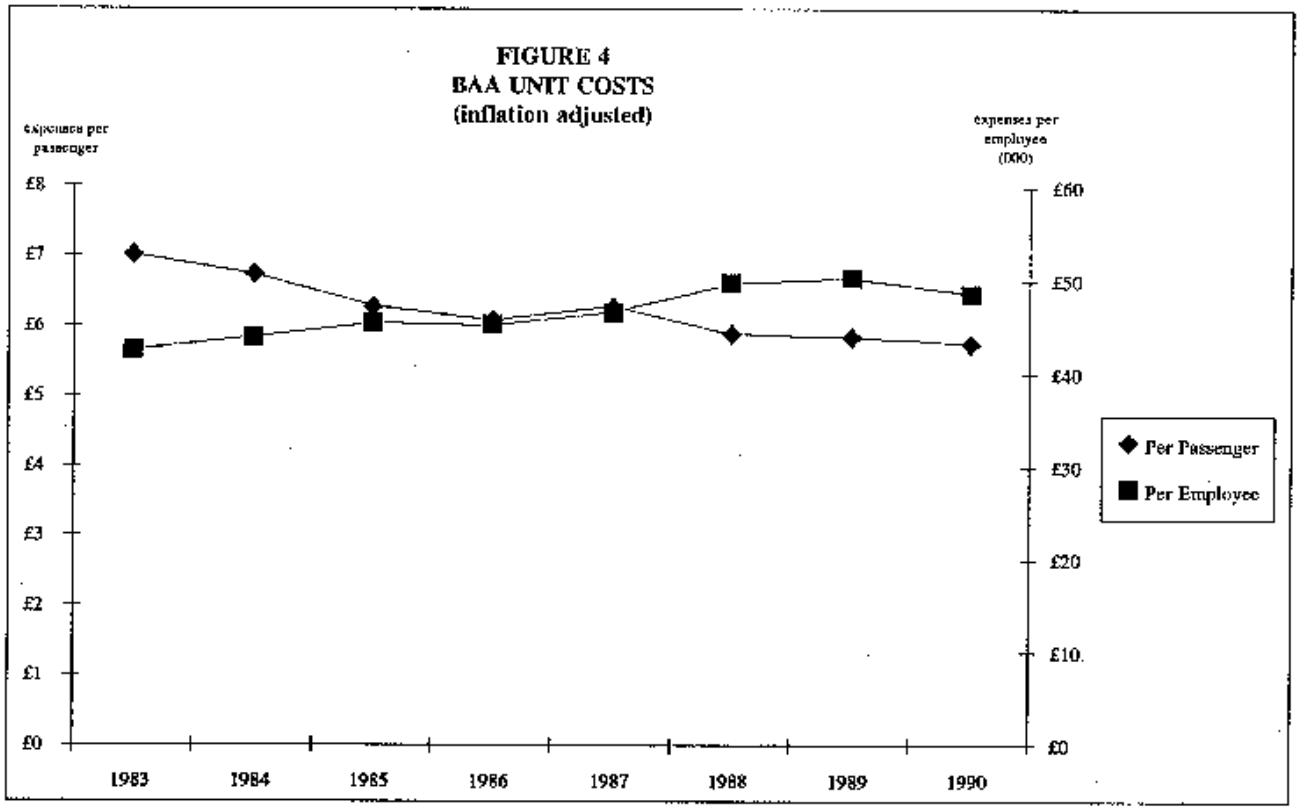
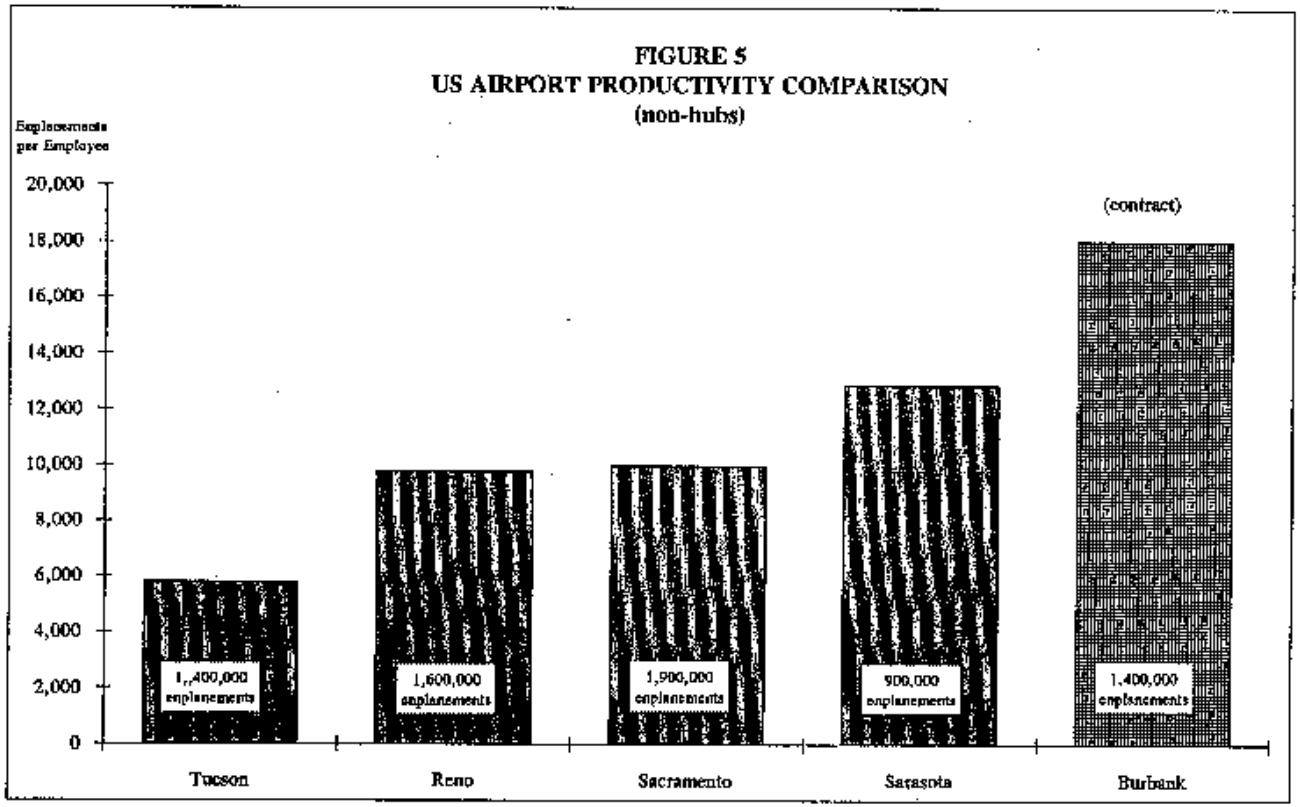


**FIGURE 5**
**US AIRPORT PRODUCTIVITY COMPARISON**
**(non-hubs)**



level of Tucson's 5,833, and well above the levels of Reno, Sacramento, and Sarasota airports.

## VI. Airside Revenues and Pricing Policy

Much concern has been raised in the U.S. airport privatization debate that a privately owned airport would drastically raise prices to airlines, thereby harming either (or both) the airlines and their passengers. Anti-privatizers generally cite BAA's London airports, especially Heathrow, as a prime example of how bad privatization would be.

### A. BAA's Pricing Policies

Despite the common perception that BAA derives a majority of its revenue from airline charges, since 1987 an increasing majority of its revenues have come from landside ("commercial") sources. Figure 6 shows the relative growth in the two types of revenue since 1983; as of FY 1990, airside revenue was down to 42% of the total. Clearly, there was significant untapped potential for deriving increased revenue from concessions, rents, and services--and BAA has begun tapping into that potential since privatization.

On an overall basis, BAA's revenue per passenger and revenue per air transport movement (ATM) have trended upward both pre- and post-privatization, with a faster rate of growth (as expected) since privatization, as seen in Figure 7.

Some U.S. airlines have contended that airside charges at Heathrow and Gatwick are excessive. Indeed, Pan American and TWA have a long-standing lawsuit against BAA and the British government over pricing at Heathrow. That action has focused considerable attention on the relative cost to airlines and passengers of using Heathrow. BAA has compared landing fees, passenger charges, and aircraft parking charges at Heathrow with those at other large European airports. Holding traffic constant at Heathrow's level, the results are shown in Table 1, based on 1988 fee schedules.(6)

Table 1
Heathrow vs. Other European Airports

| Airport | Total Int'l. Charges (pounds sterling) |
|---|---|
| Heathrow | 119,300 |
| Amsterdam | 128,600 |
| Copenhagen | 146,100 (high est.)<br>141,100 (low est.) |
| Frankfurt | 158,500 (high est.)<br>152,600 (low est.) |
| Paris (CDG) | 121,200 (high est.)<br>110,600 (low est.) |

**FIGURE 6**
**BAA REVENUE SOURCES**

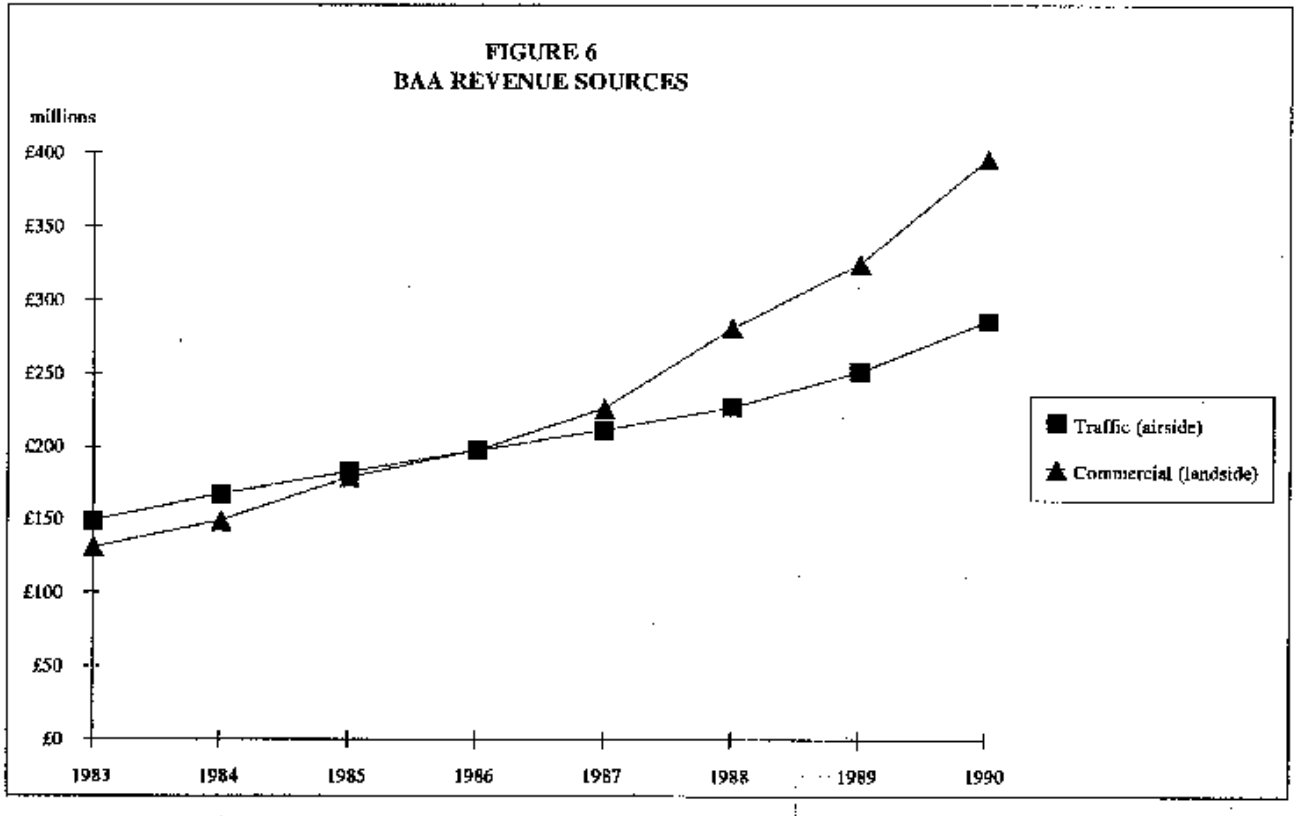
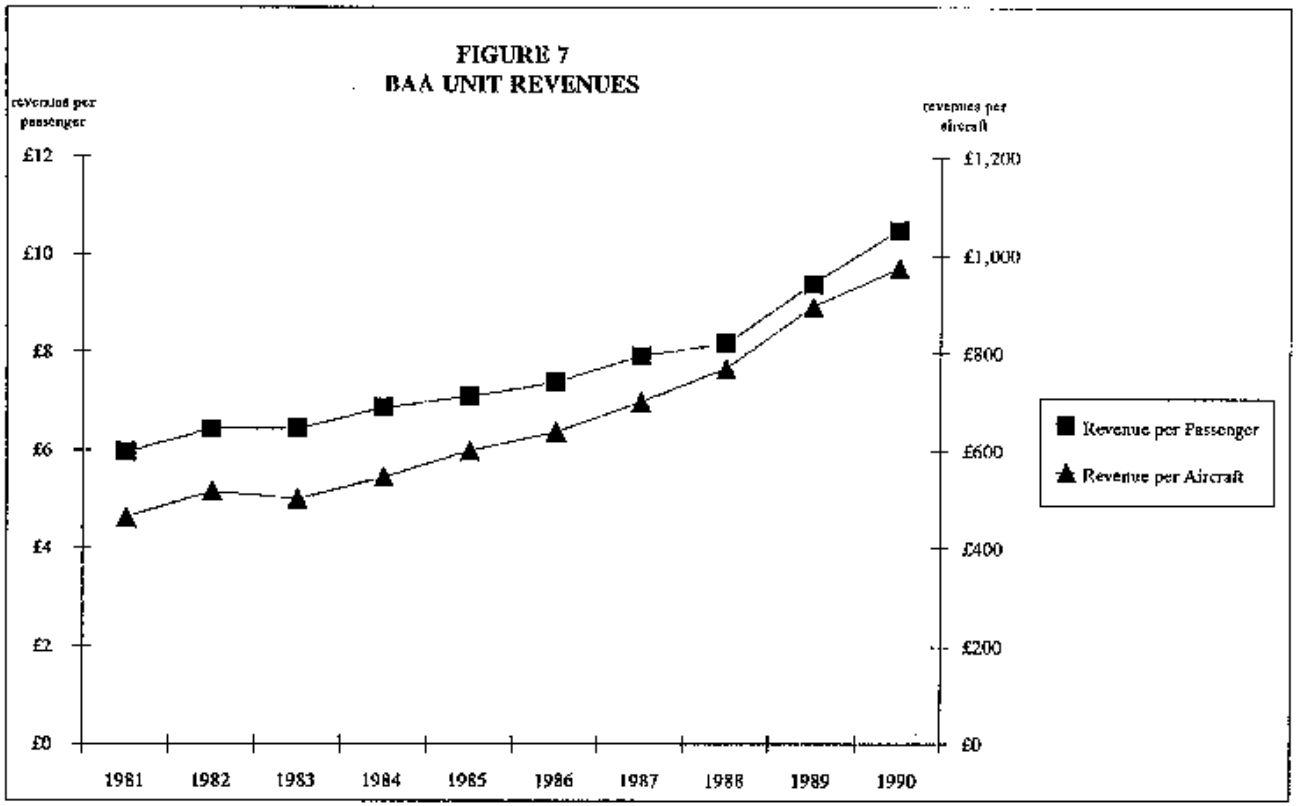


**FIGURE 7**
**BAA UNIT REVENUES**



How do Heathrow's charges compare with those of other major US international airports? The most accurate and complete data are provided by Avmark Aviation Economist's annual index of airport charges. Table 2 shows the actual amounts for landing, aircraft parking, and passenger charges for three types of aircraft at major U.S. airports compared with Heathrow, for international flights. Heathrow charges are based on a weighted average of peak and off-peak charges; the U.S. charges include the $3 ticket tax paid by departing passengers on international flights. Kennedy is seen to be more costly than Heathrow, with Chicago's O'Hare coming in very close behind.

Table 2
Avmark Comparison of Airport Charges

| Airport | DC-9-30 | A-300B2 | 747-200B | Index* |
|---|---|---|---|---|
| Heathrow | $1,022 | $2,339 | $3,480 | 111 |
| Kennedy | 1,134 | 2,763 | 4,451 | 130 |
| O'Hare | 786 | 2,200 | 3,433 | 98 |
| LaGuardia | 599 | 1,523 | -- | 77 |
| Miami | 599 | 1,594 | 2,559 | 73 |
| Newark | 543 | 1,443 | 2,820 | 70 |
| Los Angeles | 257 | 722 | 1,155 | 32 |

*Index based on 20 major airports; 100 is average of all airport charges; data are for 1988.

Underlying the charges made about BAA's "excessive" rates is some airlines' opposition to the fundamentally different basis on which BAA charges airlines and passengers for its services. BAA uses a modified form of marginal-cost pricing. In the late 1970s BAA changed its depreciation policies from historic cost accounting to a current-cost basis (which increased the value of its assets more than threefold). By the mid-1980s, well before privatization, it had in place a policy of charging for landing access on the basis of the value of the service, rather than the weight of the aircraft. These pricing policies include peak and off-peak values for landing charges, aircraft parking charges, and passenger facility charges; peak values are based on both time of day and season of the year. Since 1985, there have also been noise-related surcharges for noisy (Stage I) aircraft and rebates for quiet (Stage III) aircraft.(7)

In sharp contrast, many U.S. airports still follow what is called a "residual cost" approach. Under this procedure, airlines agree to pay only the residual of each year's airport expenses not recovered from all other sources--primarily from concession revenues. The newer approach, called "compensatory," negotiates in advance a set of airline fees and charges. Under both approaches, however, landing fees are based on aircraft weight, which typically means that smaller planes pay far less than the value of the service being provided. In addition, virtually no U.S. airport charges higher prices at peak hours or seasons, and very few charge differential fees based on noise.

Economists are virtually unanimous in endorsing marginal-

cost pricing of the kind employed by BAA and most other investor-owned companies with public-utility characteristics. This kind of pricing promotes the most efficient use of airport resources, e.g., by providing incentives to shift some operations out of congested peak periods or to lower-priced reliever airports. This kind of price system also generates additional revenues precisely at those points in the aviation system which most need new capacity investment.

Protesting airlines fear that private airport operators would price their services in a businesslike way, meaning similar to the way BAA does business. But their claim that a switch to market pricing would have a large negative impact on consumers is highly questionable.

B. Likely U.S. Pricing Under Privatization

In a report commissioned by the FAA (but not yet published), Gellman Research Associates gives an example of how privatization might affect airport pricing.(8) Based on the Reason Foundation January 1990 study's estimates of the potential market value of the top-50 US air carrier airports (9), Gellman concludes that private owners would have to recoup an average of $9.15 per enplaned passenger in higher airside fees and charges, in order to justify paying acquisition prices based on Reason's $61/annual enplaned passenger rule of thumb.

This calculation assumes that the airports' landside (e.g. concession) revenues would not increase following privatization--a dubious proposition, given the evidence from BAA's experience discussed above. Loading all the increase onto the airside, Gellman works out the numbers for six representative U.S. airports, showing that airside revenues would have to increase from their current average of 25.6% of operating revenue to a whopping 62.4% of operating revenue (compared with 42% for BAA). Needless to say, this kind of number alarms airlines and could be expected to alarm passengers.

But these numbers need to be put into context. The first three columns of Table 3 replicate data from Gellman's Table 6.1. In considering how charges might change under privatization, we must first understand the total airport and airways (infrastructure) charges which passengers are already paying. As Table 3 shows, the present 8% federal ticket tax dwarfs the current airside charges, on a per-passenger basis. Together, these two charges amount to an average of 10.8% of the ticket price at these six airports.

What would be the comparable infrastructure charges under privatization? Let us make the worst-case assumption that private airport operators would, on average, double the fees charged to airlines for landing and parking. In addition, as Gellman notes, privatized airports would probably institute a per-passenger charge (such as the passenger facility charge of $3 recently approved by House Public Works and Transportation Committee). The federal ticket tax is earmarked for airport and airways purposes. Under the Reason Foundation privatization proposal, airports which go private would lose their eligibility

for federal grants and would therefore be granted a 50% reduction in the ticket tax. Thus, as Table 4 shows, passengers using these six airports after privatization would pay an average ticket tax of $2.77. Overall, therefore, the total infrastructure charges per passenger would be an average of $9.60 under privatization. That is 13.8% of the ticket price, compared with 10.8% today. In other words, the landing and parking charges to airlines could be doubled under privatization with only a three percent increase in ticket prices resulting.

This analysis puts airline objections to British-type value-of-service pricing in perspective. There are significant benefits from using pricing to promote efficient use of scarce runway and terminal capacity, as explained in the Gellman report. In considering possible small price increases to passengers, policymakers must also consider the benefits to passengers from the reduced delays and increased capacity investment brought about by businesslike pricing of airport services.

Table 3
Airside Charges at Six US Airports

| Airport | Airside Revenue (000) | Enplanements (1988) | Airside Revenue/ Pass. | Ticket Tax | Average Ticket Price-'87 | Total Infra. Cost | Percent of Ticket Price |
|---|---|---|---|---|---|---|---|
| Cincinnati | $5,060 | 3,790,866 | $1.35 | $5.37 | $67.12 | $6.72 | 10.0% |
| Indianapolis | 6,572 | 2,585,944 | 2.52 | 7.36 | 92.00 | 9.88 | 10.7 |
| Orlando | 12,311 | 8,013,036 | 1.54 | 6.16 | 77.00 | 7.70 | 10.0 |
| Raleigh-Durham | 6,271 | 3,763,752 | 1.67 | 5.80 | 72.50 | 7.47 | 10.3 |
| Minn.-St. Paul | 12,872 | 8,742,919 | 1.47 | 5.02 | 62.75 | 6.49 | 10.3 |
| Dallas/ Ft. Worth | 66,429 | 22,485,149 | 2.95 | 3.56 | 44.50 | 6.51 | 14.6 |
| Average: | | | $1.92 | $5.54 | $69.31 | $7.46 | 10.8% |

Table 4
Worst-Case Airside Charges Under Privatization

| Airport | Doubled Airside Charges | 50% of Ticket Tax | Pass. Facility Charge | Total Infra. Costs | Percent of Ticket Price | Increase in Ticket Price |
|---|---|---|---|---|---|---|
| Cincinnati | $2.70 | $2.68 | $3.00 | $8.38 | 12.5% | 2.5% |
| Indianapolis | 5.04 | 3.68 | 3.00 | 11.72 | 12.7 | 2.0 |
| Orlando | 3.08 | 3.08 | 3.00 | 9.16 | 11.9 | 1.9 |
| Raleigh-Durham | 3.34 | 2.90 | 3.00 | 9.24 | 12.7 | 2.4 |
| Minn.-St. Paul | 2.94 | 2.51 | 3.00 | 8.45 | 13.5 | 3.2 |
| Dallas/ Ft.Worth | 5.50 | 1.78 | 3.00 | 10.68 | 24.0 | 9.4 |
| Average: | $3.83 | $2.77 | $3.00 | $9.60 | 13.8% | 3.0% |

## VII. Capital Costs

Another concern is that the capital costs of privately owned and operated airports will be higher than those of municipal airports. Because the latter have access to tax-exempt municipal bonds, it is assumed that their interest expenses will be less, and that therefore their capital costs will be lower.

It seems obvious that the exact same facility financed on a taxable-debt basis will cost more over its life than if it were financed on a non-taxable-debt basis. But there is more to the story than this.

### A. Lower Construction Cost

The first consideration is what capital costs will have to be financed in the first place. In other words, does private ownership make any difference in the construction costs of an airport terminal or other facility?

The old adage that "time is money" is nowhere more true than in the field of construction. And in this respect, privatization is already well-known for producing substantial savings. Numerous case studies in such areas as wastewater treatment plants, highways, and correctional facilities developed under Build-Operate-Transfer privatization plans have documented savings in development time of up to one-half what would have been required under traditional public-sector procurement methods.

The proof of this method's cost-effectiveness is its successful track record in numerous B-O-T projects around the world. In the airport area, the Terminal 3 project in Toronto is a good example. Transport Canada has estimated that conventional government procurement of this project would have required seven years, from the go-ahead decision to opening day. The Lockheed/ Huang & Danczkay team's schedule, by contrast, calls for just 3.5 years from start to finish. With one year less in the actual construction cycle, this time savings saves a full year's interest on the construction funding. Similar savings are expected on the Istanbul airport terminal project.

Another example of time savings is the Parot Group's public-private partnership to develop Alliance Airport. From ground-breaking to opening, the airport took just over 18 and a half months to build--the shortest time on record. Factoring in the previous 18 months from original concept to groundbreaking, the airport's total development time is just over three years--a far cry from typical public-sector airport projects.

A key element in both time and cost savings is a technique known as "design-build." The private firm heading the project assembles in advance a team of firms to design and build the facility, often using fast-track scheduling in which certain phases of design overlap with the start of construction. The major time savings are due to the elimination of the conventional competitive-bidding process. This process, which

is necessary in the public sector to prevent under-the-table deals (which presumably would lead to higher costs than the competitive process), adds large amounts of time and paperwork to the process.

By contrast, the private firm which owns and will operate the project has every incentive to obtain the best-price deal (otherwise it will get stuck with an overly costly--hence, less-profitable--project). But it is free to do this by a process of negotiation, generally involving guarantees of cost and schedule by the construction contractors. In addition, because the contractors are involved in negotiation during the design process, the designers and the builders can interact to develop lower-cost solutions to various design problems, reducing the number of costly change-orders that would otherwise occur during construction. The owner can and does influence both the designers and the builders to cooperate in this fashion, in order to hold down total project costs.

B. Taxable vs. Tax-exempt Financing

Because the private sector has strong incentives to lower the cost of construction, as well as to develop the project in considerably less time, the total amount that must be financed will generally be lower with a privatized project. But what about the financing costs?

Financial analysts such as Frank McDonough of Goldman, Sachs, have pointed out that with all things considered, the cost of money for public and private infrastructure projects is approximately the same.(10) McDonough points out, first of all, that the after-tax cost of debt to the private borrower is generally less expensive than tax-exempt debt to the municipal borrower--typically 6.69% for the former compared with 8.05% for the latter. The reason for this is that interest costs are deductible to the private taxable borrower.

On the other hand, the equity component of private projects is expensive, since private investors of risk capital require a substantial rate of return on that kind of investment. Even though equity is usually only a small fraction (5-20%) of the total financing of a privatized project, the higher cost of this component raises the total financing costs.

McDonough points out that public-sector projects also include what amounts to an equity component in their financing package--the debt service reserve fund. He argues that the true cost of this component (which ultimately comes from either customers or general taxpayers) is comparable to the cost of private equity. Hence, overall, private-sector financing is inherently less costly than public-sector financing.

There is, nonetheless, a widespread perception that public-sector financing is less costly. To compensate for this perceived advantage, McDonough recommends modifying the tax code to provide for accelerated depreciation for private infrastructure projects and/or permitting transportation

projects to be eligible for private-activity bonds in the tax-exempt market.

## VIII. Noise Mitigation

Is the private sector less able to cope with the problem of noise impact on surrounding communities? Noise is both a nuisance at common law and the frequent object of specific governmental laws and regulations. The evidence to date suggests that private-sector airports cope with noise at least as well as public-sector airports.

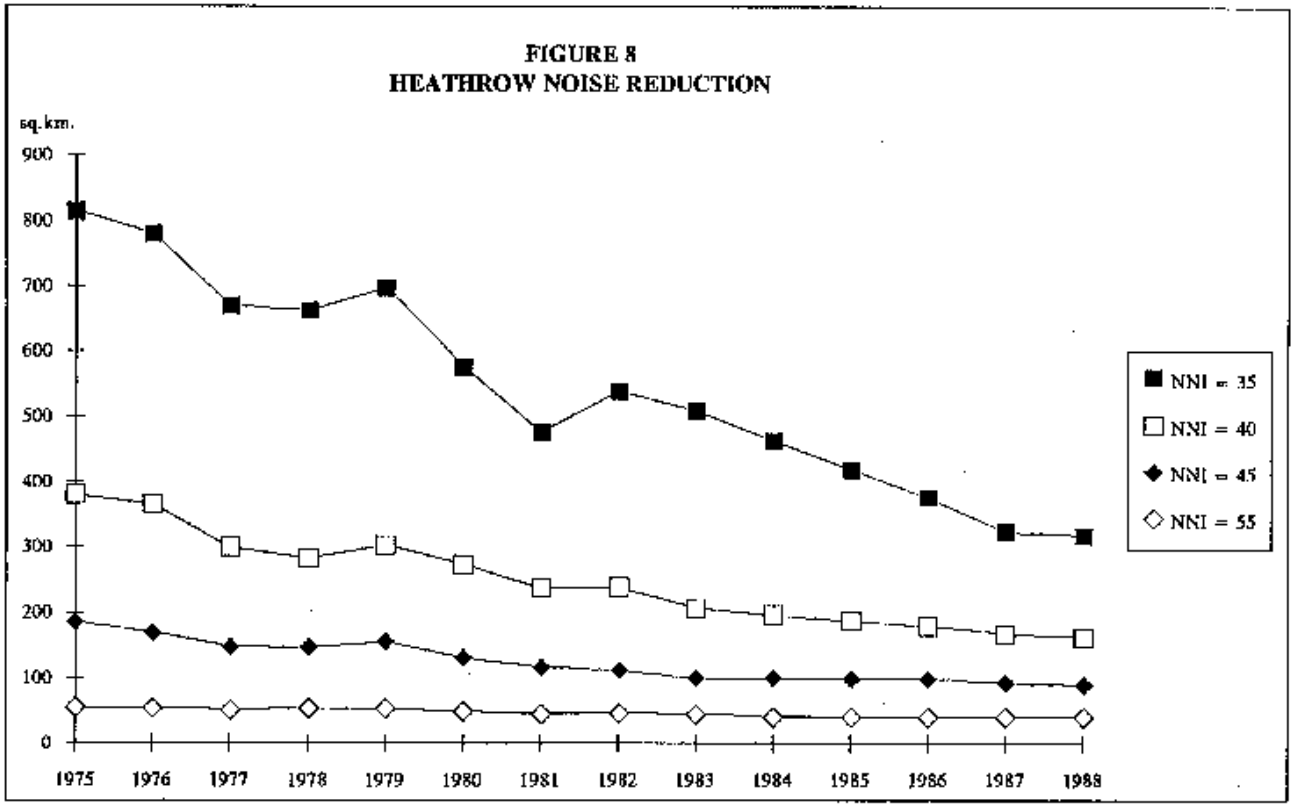
In Britain, government regulation of airport noise pre-dates privatization. Under the Aviation Security Act of 1982, the Secretary of State has powers to require airport operators to limit noise, or to mitigate its effect. Britain's Southeast airports have been designated for regulation under this Act. Hence, regulations designate approach and departure paths and impose limit on night operations. In addition, maximum take-off noise limits have been set for Heathrow and Gatwick, and are planned for introduction at Stansted as that airport develops. Heathrow and Gatwick were also required to make noise insulation grants to certain nearby residences during the 1980s. In addition, under the Land Compensation Act of 1973, each BAA airport is liable to pay compensation for loss of value of nearby properties due to certain additions to the airports.

How has BAA responded to these regulations? Prior to privatization, as part of its commercialization, BAA adopted noise-related surcharges and rebates as part of its landing charges. Specifically, since 1985 the older, noisier Stage I aircraft must pay a 25% surcharge on all landing fees. And the quieter Stage III aircraft enjoy modest rebates on those fees. In addition, since January 1987 BAA has offered to purchase a limited number of properties near Heathrow and Gatwick which are severely affected by noise but which predate the qualifying dates for payments under the Land Compensation Act.

Figure 8 shows that over the past 15 years, the noise impact of Heathrow has steadily diminished, despite the continued growth of air traffic. The figure shows the area, in square kilometers, affected by noise of a certain magnitude (using the British Noise & Number Impact [NNI] system). In addition, the number of "non-compliance" incidents at Heathrow has declined sharply. In 1979, such incidents constituted 1.7% of take-offs; this number fell to 0.5% in 1984, 0.18% in 1986, 0.14% in 1987, and 0.11% in 1988.

Similar progress has been shown by contractor-operated Burbank airport. The grant agreement by which the FAA helped fund the purchase of the airport in 1978 specified that its noise impact area could not increase in the future. In fact, that impact area has shrunk dramatically over the subsequent 12 years, as shown in Figure 9. The 403 acres of land impacted by noise levels of 70 decibels or higher in 1978 had declined to just 25.1 acres in 1989--a 93.8% reduction.

**FIGURE 8**
**HEATHROW NOISE REDUCTION**



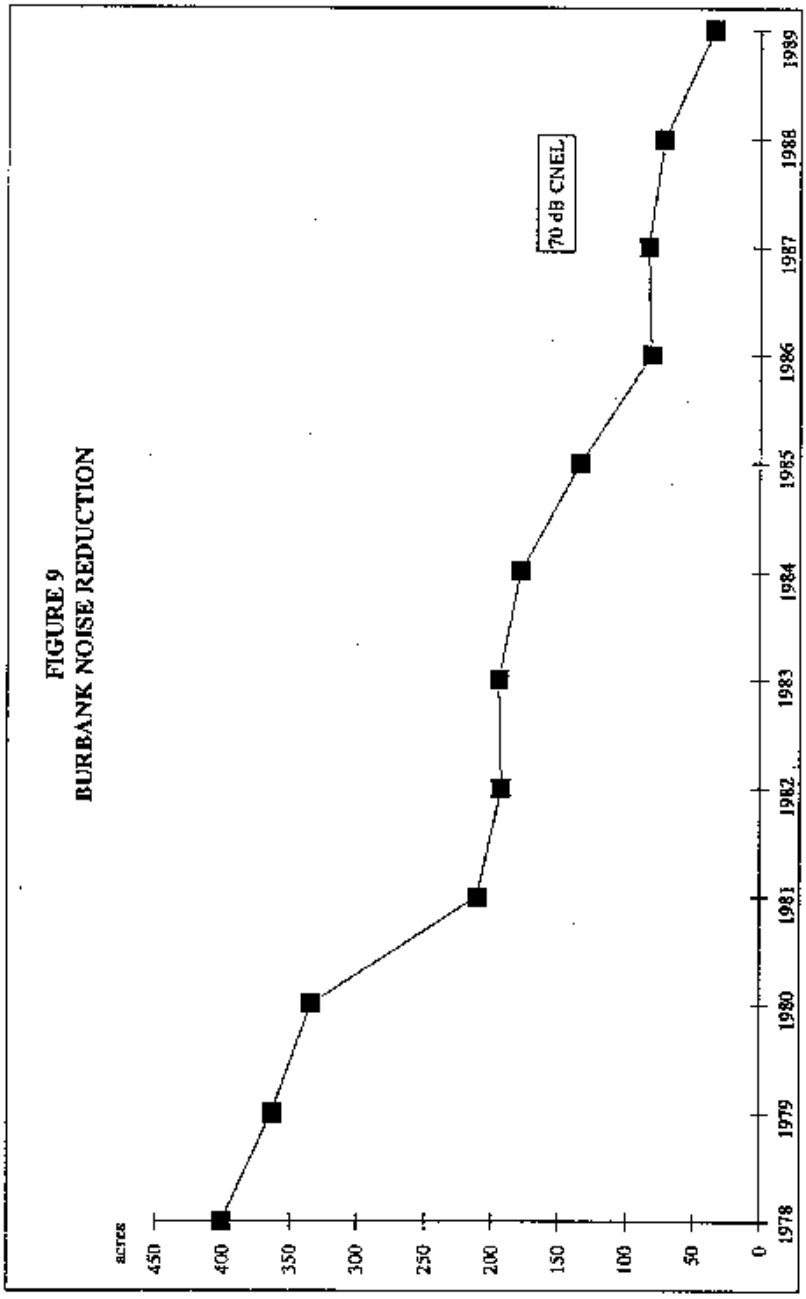


FIGURE 9
BURBANK NOISE REDUCTION
70 dB CNEL
acres
450
400
350
300
250
200
150
100
50
0
1978
1979
1980
1981
1982
1983
1984
1985
1986
1987
1988
1989

The airlines agreed to a unique noise-control program, under which non-Stage III aircraft were phased out by April 1987. In exchange, the airport has declined to impose slot restrictions like those in effect at John Wayne airport in Orange County and the Long Beach airport--both of which, like Burbank, are surrounded by residential areas. Thus, at Burbank from 1978 to 1989 annual air transport movements have increased from 34,395 to 43,828, despite the ban on non-Stage III aircraft. On the basis of this program's success, the FAA has awarded the airport a $2.5 million grant to begin sound insulation of nearby schools.

Although the Burbank Airport Authority and Lockheed Air Terminal did not use noise-related fees (a la BAA) to accomplish the substantial noise reduction, they did use an economic incentive--no slot controls--to win the airlines' approval of the phase-out of noisy aircraft. Several other U.S. airports are moving in the direction of economic incentives, as well.

The Washington State legislature has considered a noise fee ordinance for the Seattle-Tacoma International Airport and Boeing Field. It would charge $25 for each daytime landing or takeoff and $50 for each such operation at night (after 11 PM). Stage III aircraft would pay only 20% of these amounts. All revenues from the fees would go into a noise mitigation account in the state treasury and be used only for that purpose.

In November 1989 Palm Beach County adopted a noise fee ordinance for Palm Beach International. Stage I aircraft are already banned from the airport, so the main target of the fees is Stage II planes. Daytime operations by these aircraft are charged $13, while night landings must pay $130 and night takeoffs $1,300. Night operations by Stage III planes pay only $10, while daytime Stage III operations receive a credit. The proceeds from the noise fees can be used only for noise mitigation and to pay for credits to Stage III operators.

It seems quite clear, based on the foregoing, that private operators of airports can operate aggressive noise-control programs. Noise-related fees are already in operation in the United States, and would be readily available as a tool for use by private airport owner-operators. The private sector's exposure to liability actions for noise impacts provides a strong motivation for it to act aggressively on noise mitigation. And noise fees provide a powerful means of both (1) giving aircraft operators economic incentives to alter their operations, toward quieter aircraft, and (2) providing the airport company with revenue needed for noise mitigation activities.

Indeed, the ability of a privatized airport to charge noise fees and fund compensation to those near the airport who are impacted by noise may, over time, reduce community opposition to the airport's presence and thereby make it easier for capacity expansions to occur. In addition, as the Gellman Research report suggests, a city which depends on a regular stream of revenue from the airport (e.g., from property taxes) may be more receptive to requests for zoning changes and other permissions

required for expansion. Privatized airports, in short, are likely to be viewed as better neighbors than their non-profit municipally owned counterparts.

## IX. Customer Satisfaction

How do passengers fare in a privatized airport? Are they taken for granted and herded about like cattle? Are they pampered and fussed over, as valuable customers? We have already seen that BAA is managing to derive increasing revenue from each passenger, on average (Figure 7). But how do the customers feel about using a for-profit airport?

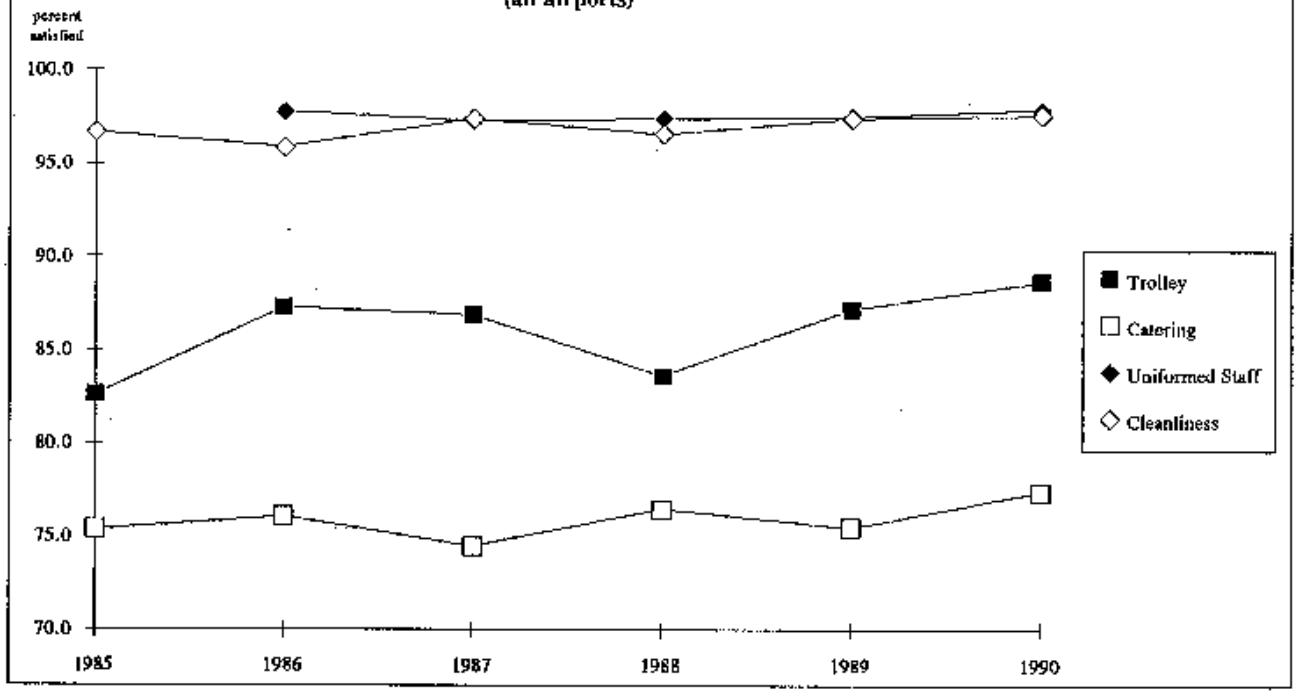
BAA began quarterly Passenger Opinion Surveys in June 1983, in the years when it had been turned into a government corporation and was expected to be self-supporting. In 1989, two years after privatization, the frequency was changed to monthly. Approximately 20 different aspects of airport service are covered, with an emphasis on those areas over which BAA (as opposed to airlines or customs/immigration staff) have direct control. Reports of the survey results are circulated to airport management, and targets are set for service levels in terms of customer satisfaction levels, as revealed by the surveys. The surveys are conducted by BAA's in-house market research group.

Figure 10 shows the results on an annualized basis, for the financial years ending March 31, for the four principal services which are monitored.(11) The figure reports the percentage of departing passengers expressing satisfaction with the given service. First, note that all the results show a slight upward trend over the five-year period, with no significant difference before and after privatization. Assuming no changes in the survey methodology before and after, it seems as if privatization has not interrupted the steady improvement in the level of passenger satisfaction. Second, it can be seen that BAA does a much better job with some services than with others. While passengers are highly satisfied with their interactions with uniformed staff and with the terminals' cleanliness, some 15% are not satisfied with trolley (baggage cart) service, and nearly 25% are not happy with the catering service. Clearly, there is still room for improvement in these areas.

No comparative survey data are available for major U.S. airports, so it is not possible to say whether passengers using JFK and LAX are more or less satisfied than those using Heathrow and Gatwick. But the fact that BAA is devoting considerable attention to surveying upwards of 65,000 customers each month indicates BAA's seriousness, as the airport owner, about pleasing the customer.

Will private enterprise design airports for greater customer convenience and satisfaction? BAA's development of a high-speed rail link to central London is one indication. The design of Toronto's privately developed Terminal 3 is another case in point. Lockheed Air Terminal and Huang & Danczkay are designing it from the outset to be user-friendly. Already named Trillium,

**FIGURE 10**
**BAA CUSTOMER SATISFACTION**
**(all airports)**



the terminal features a Grand Hall "totally dedicated to the traveller's convenience and pleasure," to quote the marketing literature. Planned amenities include shopping (including a branch of London's famed Harrods department store), dining and hospitality outlets, art and cultural exhibits, an attached business complex, and an international hotel.

While many U.S. airports include advertising signs in certain areas, others (such as LAX) do not. As a commercial enterprise, Trillium is being designed from the outset for advertising displays, including the purchase of time on the terminal's own video network and the opportunity to sponsor events and activities within the Great Hall. Given the upscale nature of most air travellers, these advertising opportunities are being marketed at premium prices to select advertisers. While some may object to such commercialization, advertising serves to relieve the boredom of passenger time spent in terminals, as well as generating revenue that--other things equal--will mean less pressure for increased passenger fees.

Historically, passengers have been considered a captive audience, to be exploited by monopoly concessionaires picked on the basis of which one provided the highest percentage of gross revenue to the airport operator. "Airport food" is synonymous with poor quality at outrageous prices.

A preview of what would be likely to happen under privatization is beginning to occur at certain U.S. airports. Those hub airports which are in competition with others--especially gateway hubs competing for international business--have begun changing their concession policies, opening up the business to a number of firms, both local operators and affiliates of national chains. Among the pace-setters have been Boston, Miami, Seattle/Tacoma, and San Francisco. One of the key findings has been that brand-name firms attract higher volumes, permitting the airport to reduce the percentage of gross revenue it takes. The result is lower prices to consumers as well as increased revenue to the airport.(12)

These limited experiments, both in Britain and the United States, indicate that airports present huge commercial opportunities for the retailing of both goods and services. Some 40% of all caviar sold in Western Europe is purchased at Heathrow, which is also home to the world's highest-volume Burger King. Recreational services--such as Denver and Pittsburgh's new Tee-Off and Take-Off golf-playing shops--are an almost totally untapped market. Other services, such as fully-equipped business centers, conference facilities, and short-term hotel accomodations--are sorely lacking at most airports. There is tremendous scope for entrepreneurship in this field, figuring out additional human wants and filling them, at a profit.

The idea that U.S. airports are already fully exploiting their commercial (landside) revenue potential is laughable. The opportunity to sell goods and services to a virtually captive audience of upscale consumers is one that many more companies will pay dearly for.

## X. Price/Profit Regulation

### A. The British Model

In the 1986 Airports Act, which authorized airport privatization in the U.K., a regulatory framework was set forth. It provides that any airport with annual turnover of £1 million or more is subject to economic regulation of its airside charges, specifically aircraft landing, takeoff, parking, servicing and passenger/cargo handling charges. Exempted are groundside activities, including car parking and all concessions. Devising and carrying out this regulation is assigned to the Civil Aviation Authority (CAA).

In addition, the Act provides for a quinquennial review of airport practices and regulation. Every five years, the CAA is to ask the Monopolies & Mergers Commission (MMC) to review the rates charged by airports and to examine whether there have been discriminatory or predatory prices, with respect to airlines, other airports, or air travelers.

Besides these two major features, there are several other regulatory constraints. First, privately owned airports are subject to the U.K.'s general anti-monopoly legislation. At any time (not just at five-year intervals), the MMC may review any potentially abusive practice. In addition, although there is no private right of action in antitrust in Britain, private parties may make complaints to the CAA, which may investigate them. Finally, private airport companies are also subject (like any other business) to the general anti-monopoly provisions of the European Economic Community (EEC), specifically Article 86 of the Treaty of Rome which prohibits "any abuse . . . of a dominant position" by a firm.

As in the case of other privatized utilities in Britain, the regulators of BAA have rejected conventional U.S.-type public utility regulation, which limits the allowable rate of return. Instead, the CAA subjects airports' airside charges to price regulation, under the RPI-minus-X formula (the retail price index minus some factor). Whereas conventional rate-of-return regulation provides incentives for over-investment (in order to earn the allowable return on a higher rate base), inflation-adjusted price regulation provides incentives for more-efficient operation, since cost-reduction under a price ceiling translates directly into higher profits. The British are using RPI-minus-x type regulation in the privatized telephone, gas, water, and electricity industries, in addition to airport industry. During the past five years, a number of state public utility commissions have begun switching to this type of price regulation for telephone service in the United States, and the Federal Communications Commission has used it selectively, as well.

### B. Criticisms of the British Model

Many transportation economists have criticized the British government's decision to privatize BAA as a single company,

rather than breaking it up, selling off the London airports as separate, competing airports. Independent studies by the Centre for Policy Studies (13), the Adam Smith Institute (14), and the Institute for Fiscal Studies (15) all recommended competitive divestiture of the London airports. But the British government, realizing that it would probably obtain a higher sales price by selling BAA as a single company, opted for the latter course. To some extent, then, the "need" for economic regulation of London's airports is the result of an explicit government decision to forego putting the airports into competition with one another.

The British government has also been criticized for the way in which it implemented the RPI-minus-X formula in the case of BAA's London airports. While this type of price regulation does promote efficiency in operations, its overall value depends critically on the initial pricing structure making sense, prior to the start of annual regulation of the permitted increases. In the BAA case, it was decided to use the prices that were in effect at the London airports at the time of privatization as the base prices. As the Gellman report notes, "This decision was taken despite the fact that there was substantial evidence that the landing fee charges at both Heathrow and Gatwick were substantially below long run marginal costs." More specifically, according to an analysis by David Starkie and David Thompson, landing fees were too high at Heathrow and about right at Gatwick, but passenger fees and aircraft parking charges at both airports were far too low.(16)

Gellman concludes that the British erred both in failing to readjust airside prices before implementing RPI-minus-X price regulation and in failing to sell the airports separately. Both decisions represent "missed opportunities" to improve the allocation of resources for greater economic efficiency. It is important that the United States learn from the British example.

The Gellman report raises an additional criticism of the RPI-minus-X approach as applied to airports. It points out that BAA's airside and landside services are complements of one another (i.e. demand for aircraft seats is closely linked to demands for passenger services in the terminals). When a price cap is applied to one set of services but not the other, a firm will raise prices in the unregulated sector (the landside, in this case) as a way of also limiting demand in the regulated sector. Hence, "the price cap may cause the airport operator to produce even less output than a monopolist; such an outcome would be inconsistent with improving economic efficiency."

C. When Is Regulation Needed?

Traditional public utility theory argues that certain types of infrastructure (water, gas, electricity) are inherently monopolistic in the following sense. Since the larger they are the lower their average cost of serving each customer (economies of scale), it is better to have one large utility serving a given locality than two smaller (each higher-cost) ones. Economists refer to this characteristic as exhibiting declining long-run average costs as size increases. If this is the case,

however, and the utility is operated for profit, its profit margin will increase without limit as it gets larger. Hence, the historic trade-off has been government regulation, to limit monopolistic prices in exchange for obtaining the lower inherent costs of a large, single utility.

But do airports actually meet these conditions for utility-monopoly status? There is growing economic evidence that they do not. The Gellman report summarizes research which indicates that airports exhibit increasing long-run average costs. Particularly where there are capacity limits, either in terms of land-use constraints or ATC constraints, it can be far more expensive to add a runway at a LaGuardia or a Lambert Field (St. Louis) or a DFW than to add start up a new airport on low-cost land at the limits of the metro area.

Why don't we see such competitive entry? Gellman points out that today's below-cost airport pricing policies distort economic decision-making. Current prices charged to airlines are very low; they do not reflect the very real delay costs at many airports. In addition, they generally do not reflect current-value asset costs (which the builder of a new airport would have to take into account). If current airport prices reflected these costs, it would be far more feasible for entrepreneurs to invest in starting up new airports to relieve today's capacity shortfall.

Citing the work of Brookings Institution economist Steven A. Morrison and others, Gellman concludes that at large airports, airside operations exhibit increasing costs due to congestion. As a result, Gellman concludes that the traditional public utility reason to regulate--in order to capture the benefits of decreasing costs--is absent in the airport industry.

Are there other reasons to regulate airports? The main temptation of a monopolist is to limit its output, thereby driving up its prices--which customers have no choice but to pay. How serious a danger would that be in the absence of some form of direct regulation?

Gellman concludes that if airports are allowed to price their services in accordance with supply and demand--i.e., to charge different prices at different times of the day and to different classes of users, as the airlines do now under deregulation--then the airport company will have no incentive to restrict its output. It will maximize its profit via yield maximization, just as the airlines do now by fine-tuning their pricing to different categories of user: tourists willing to accept restrictions in exchange for low prices, business travelers needing to make reservations at the last minute (and therefore willing or needing to pay higher prices, etc.) Economists agree that this type of pricing gets the most use out of the available capacity, whether that capacity is the number of seats on an aircraft or the number of slots at an airport.

If, on the other hand, airports are forced to charge the same price to every user (i.e., no peak-hour differentials or off-peak discounts, not charging what the market will bear),

then they will have an incentive to restrict output, drive up prices and revenues, and earn monopoly profits. Paradoxically, pricing freedom leads to ordinary (competitive) profits, while controlled pricing leads to monopoly profits, giving rise to a case for regulation.

Gellman also points out a secondary question: the distribution of the airport's profits. Under today's system, airports' "profits" are unseen, but are essentially passed along to the airlines in the form of below-market prices (since the airport itself is not supposed to be showing a net profit, under municipal ownership and FAA grant assurances). Under a privatized system, airport profits would be explicitly seen. Government could seek to limit those profits via regulation, essentially redistributing a portion of the profits to one or more category of users. But it would be economically more efficient simply to tax the profits. The federal government (and most state governments) would share in these profits via corporate income taxes, and local governments would also enjoy a new revenue stream from the annual property tax payments. The public-sector goal of limiting excess profits could be met via the tax system, rather than by explicit price or profit regulation.

D. Promoting Competition: Indirect Regulation

In their study of British airport privatization, economists David Starkie and David Thompson review the disadvantages of both rate-of-return and RPI-minus-X regulation, pointing out that both types of regulation introduce distortions into the marketplace and both carry high costs of administration. They conclude that "if regulation is used only to supplement, as necessary, competitive forces, it is more likely that the final outcome will be efficient." They also note that "regulation which supplements competition has the advantage of drawing upon competing sources of information and opinion," rather than being essentially dependent on information produced by the regulated company.

Among the most powerful forms of indirect regulation are the antitrust laws. As noted earlier, in Britain there is no right of private action in antitrust; all such complaints must be brought by the government. By contrast, in the United States any airline, competing airport, car rental company, or passenger who believed that a privatized airport's pricing or other policies were predatory, discriminatory, or otherwise anti-competitive would be free to seek redress in court under federal and state antitrust laws.

We tend to forget that the anti-competitive practices which have grown up in today's government-owned airports are exempt from antitrust laws, because of the governmental status of these airports. Current case law, based on municipal ownership, exempts airports from the essential facility doctrine, which would otherwise make it the duty of an airport to provide reasonable opportunities for new airlines to enter. Likewise, majority-in-interest clauses in airline use agreements, which can cut off entry to newcomer airlines by giving incumbent

3. Jerry L. DePoy, USAir, letter to George Howard, AOCI, March 13, 1990.

4. "Liverpool Airport Sold," PW Financing, July 1990, p. 6.

5. Nearly all of the BAA operational statistics are derived from "BAA Offer for Sale," County NatWest Limited, 1987 and BAA's annual "Report and Accounts" and "Financial and Operating Information" for 1988, 1989, and 1990.

6. "BAA Charging Structure," undated BAA manuscript.

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ACKNOWLEDGEMENTS

The author received extensive cooperation in obtaining information from AVCO, BAA, Pan Am World Services, and Lock Air Terminal. This assistance is gratefully acknowledged. analysis and conclusions in this report are solely the wor; the author.

ABOUT THE AUTHOR

Robert W. Poole, Jr. holds B.S. and M.S. degrees in engineering from MIT, and is the founder and president of the Reason Foundation. He advised the White House on privatization of air traffic control, and advised the President's Commission on Privatization on aviation privatization issues. He currently serves on the Caltrans Privatization Advisory Steering Committee.