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Airport System Capital Requirements

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Airport System Capital Requirements

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FOREWORD

The workshop on Airport System Capital Requirements was conducted by the Transportation Research Board's Committee on Intergovernmental Relations in Aviation on April 15, 1997, at the National Academy of Sciences in Washington, D.C. This workshop was carried out under the sponsorship of the Federal Aviation Administration.

The workshop had the broad task of presenting, comparing and discussing estimates of airport system capital needs, and initiating a discussion of how current sources are allocated to meet needs—and whether these sources are adequate to meet both current and forecast demands. Federal budget concerns and airport aid reauthorization activities made this a timely topic.

The intent of the workshop was to reveal the range of opinion regarding airport needs and funding capabilities, and was successful in stimulating discussion. The identification of differences was an important initial step in an ongoing dialogue. By the conclusion of the workshop, there was a clearer understanding of current views—where they converged and where they differed—and some changes that might be necessary in the future.

The approach was to look at broad issues, not specific airports—groups and types of airports as opposed to individual facilities. The U.S. General Accounting Office, and several aviation associations presented viewpoints on the needs of the entire airport system. Other shareholders—states, regional planning entities, grass-roots associations, corporations and consultants—presented estimates and opinions for specific segments of the system. These emphasized and illuminated the needs of specialized areas. All participants focused on providing insights and understanding of needs, priorities and resources.

The basic questions put to participants were: What are the needs? What are the resources available to fund them? What gaps remain and how might these best be funded?

This report of workshop proceedings represents the views of the panel participants, and not necessarily those of the Federal Aviation Administration or the Transportation Research Board.

The Transportation Research Board deeply appreciates the time and thoughtful contributions of the distinguished experts who attended. Special acknowledgment is due to the workshop chairman, George Blomme, Aviation Planning and Technology Systems, and A.H. (Rick) Childs, Chairman of the Committee on Intergovernmental Relations in Aviation for planning, organizing and overseeing preparation of this workshop and report.

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OPENING REMARKS

Susan Kurland
Federal Aviation Administration

First and foremost, welcome to each of you and thank you for accepting the invitation to come here today to discuss airport system capital requirements. Special thanks are due to Joe Breen and the staff of TRB for hosting the workshop and to the TRB Committee on Intergovernmental Relations in Aviation, chaired by Rick Childs, for sponsoring the workshop.

The workshop has the broad purpose of presenting, comparing, and discussing estimates of airport system capital needs and initiating a discussion of how resources are currently allocated to meet needs and whether existing funds are adequate. This is a timely topic, because the national debate over deficit reduction and balancing the federal budget is exerting tremendous pressure on agencies such as the Federal Aviation Administration (FAA).

Grant-in-aid programs such as the FAA Airport Improvement Program (AIP) are part of a shrinking, national discretionary spending pie. One need only look at the 1998 budget request of $1 billion for the AIP program to find evidence of the reality of the debate in which the country is now engaged. Fortunately, we have some time to make a thoughtful assessment of airport system needs. Congress is currently occupied with the Intermodal Surface Transportation Efficiency Act (ISTEA) reauthorization, so we have a year to forge a consensus regarding the future development needs of the airport system and the federal role in helping to finance that development.

The framework for coming to this consensus was outlined by Congress last year when The National Civil Aviation Review Commission was created. There is a broad and careful data-collection effort underway that will be a key resource for the Commission. Coopers and Lybrand recently completed an independent assessment of FAA financial requirements, including a chapter on airport system capital needs. The Office of the Associate Administrator for Airports provided a great deal of information to Coopers and Lybrand, and we were involved in several cycles of review and comment. This interaction helped Coopers and Lybrand comprehend the magnitude of airport system capital needs. The Coopers and Lybrand report stated that their best estimate of capital needs for the 1997-2002 period is in the range of $7 billion to $8 billion annually in constant 1997 dollars.

The General Accounting Office (GAO) has also conducted a study of airport development needs, and again FAA cooperated closely with them. A summary of the GAO study will be presented following this introduction. These two reports have gotten us off to a good start. They indicate that there is a fairly narrow range of opinion about the composition of the national airport system and its capital needs.

Today's discussion should give us a richer understanding of system needs as seen from various perspectives and highlight the concerns of different segments of civil aviation. We expect to find much in common in the vision of the national airport system and the need for improvements over the next five years. The part of the agenda that is particularly intriguing deals with financial resources: how are they derived, how are they distributed, are they adequate? This is the type of information that will be essential in working toward a federal aid program that both fits the budget and meets national air transportation needs. We are only beginning to discuss these topics, and this workshop will make a very important contribution. By the time we adjourn this afternoon, we should have a better understanding of the financial resources of the airport system and the issues that are in dispute and what information is needed to help resolve the dispute. Each of you has a contribution to make. I assure you that your comments will have an eager audience.

SUMMARY OF AIRPORT DEVELOPMENT NEEDS

Paul Aussendorf and Charles Chambers
U.S. General Accounting Office

Background

Today the Federal Government and the aviation community are at a crossroads in deciding how to meet airport development needs and fund airport development. We can continue the current method of funding airport projects through the Airport Improvement Plan (AIP) which is fed by the airline ticket tax and other levies on aviation activity. Outlays of AIP funds, however, have declined in recent years due to Federal Government budgetary restrictions, and it may be necessary to seek other financing

In February-March 1996, there was a series of hearings in the House of Representatives and the Senate, at which various airline and airport groups presented estimates of airport capital needs for the coming years. These estimates varied widely, ranging from $4 billion per year by the Air Transport Association (ATA) to $10 billion per year by the Airports Council International (ACI) and the American Association of Airport Executives (AAAE).

At the same time, the passenger ticket tax authorization expired, and there was considerable discussion about whether the ticket tax should be reinstated at all or whether some other financing mechanism should be put into place. As the Congress considered continuing the AIP program in the fall of 1996 as part of the FAA reauthorization act, it became clear that additional information would be needed on the magnitude of airport development needs, funding needs, and revenue sources.

Three major steps were taken to acquire this information. The National Civil Aviation Review Commission was created in late 1996. The accounting firm of Coopers and Lybrand was asked to make a financial assessment of FAA. GAO was directed to perform a study of airport development needs. The findings of the GAO study are the subject of the presentation.

GAO Approach

The GAO study just released had three objectives. The first was to understand the various estimates made in 1996 and to reconcile their differences. Second, GAO made its own estimate of need for the period 1997-2001. Note that we did not collect new data; we used existing data bases. We did not audit or verify the needs listed in the ATA, ACI/AAAE, and FAA data bases. However, we did look carefully at how the data were collected and how each organization interpreted it. From this we were able to provide our own range of estimates.

Finally, GAO sought to identify the factors that affect core capital needs. At the outset, the hope was to develop some kind of forecast model that could be used as a predictor of future capital needs. We soon discovered that existing data would not allow us to do this. Neither time series data nor capital stock data could be used to forecast future needs.

Needs Estimates

Table 1 is a comparison of the three needs estimates. ACI and AAAE estimated the need to be $60 billion over six years, $10 billion a year. The ATA estimate was just short of $20 billion over five years. FAA's estimate was $32.7 billion over five years. It is evident that the mix of airport needs, the categories of airports included, and projects considered in each of these estimates differ widely.

A major factor contributing to the disparity of estimates was the source of information used. The ACI estimate is dependent on a survey conducted of 140 hub airports, supplemented by the NPIAS, which is FAA's catalog of airport needs. ATA used a private data source, the Airport Marketing Information System (AMIS). The version used to make their initial estimate was based largely on a 1994 NPIAS data base supplemented by some individual airport capital improvement plans. FAA's need estimate was based on 1996 NPIAS data (See the (following) presentation by Mr. Browne of ATA for further remarks about the ATA needs estimate).

GAO closely examined each of these databases (ATA, ACI/AAAE, and FAA). FAA furnished a copy of the current NPIAS data base and provided help along the way in understanding it. ACI did the same and provided copies of all their data and helped in piecing it together. The AMIS data base had to be purchased. Using these data bases, GAO was able to reconstruct how each of these estimates was derived.

TABLE 1 AIRPORT DEVELOPMENT NEEDS: COMPARISON OF ESTIMATES

	ACI/AAAE	ATA	FAA
Estimated need	$60 billion	$19.8 billion	$32.7 billion
Period	1997-2002	1996-2000	1996-2000
Annual avg.	$10 billion	$4 billion	$6.5 billion
Number of airports	3,300 NPIAS	421 primary	3,300 NPIAS
Types of projects	AIP-eligible and ineligible	AIP-eligible	AIP-eligible
Source information	Survey and NPIAS	AMIS	1996 NPIAS

TABLE 1 (Cont.) AIRPORT DEVELOPMENT NEEDS: COMPARISON OF ESTIMATES

Annual Average ($ in mil.)	ACI/AAAE	ATA	FAA
Primary airports (AIP eligible)	$4,450	$3,965	$5,187
All NPIAS Airports (AIP eligible)	$5,583	n/a	$6,534
All NPIAS Airports	$10,000	n/a	n/a

Table 1 shows that the estimates, when examined for the same type of airport category or project, are more comparable than they may seem at first blush. For example, the ATA estimate of annual funding needed for the 421 primary airports, differs by $1.2 billion from FAA's estimate. For all NPIAS airports, the FAA estimate is actually $951 million larger than the ACI estimate for the same group of airports.

Reconciling Estimates

The second objective of the GAO study was to put together a range of estimates for airport capital needs for the next five years. In doing so we allowed for different points of view and interests. Every user comes at the question of airport needs from a different perspective in terms of the types of categories of airports considered and the types of projects to be undertaken.

The range of estimates is basically a menu that makes it possible to consider airport needs both broadly and specifically. The data sources for this analysis were the 1997 preliminary NPIAS data base supplemented by ACI data and NASAO survey information that was very helpful in pulling together information on state-funded airports not included in the NPIAS. (Table 2)

GAO Estimates of Future Needs

The range of estimates is shown in Table 3. The first line is the narrowest band of capital needs, which consists of

TABLE 2 AIRPORT DEVELOPMENT NEEDS: RECONCILING ESTIMATES

		($ in millions)
ATA	**Primary Airports**	**$19,824**
	Update from '94 to '96 NPIAS	6,460
	Other CS airports	692
	Reliever airports	2,238
	GA airports	3,808
	AIP ineligible projects	(193)
	All other differences	(115)
FAA	**All airports, AIP-eligible only**	**$32,671**
	AIP ineligible projects	20,600
	ACI/AAAE overstatement	3,116
	ACI/AAAE inflation adjustment	5,900
	All other differences	(2,287)
ACI/AAAE	**All airports, all projects**	**$60,000**

TABLE 3 AIRPORT DEVELOPMENT NEEDS: GAO ESTIMATES OF FUTURE NEEDS

Scope of projects and airports included in estimate	Total 1997-2001 ($ in millions)	Annual Average ($ in millions)
Safety, security, and environmental projects; maintain infrastructure	$7,069	$1,414
High-priority, AIP-eligible projects at NPIAS airports	13,873	2,775
All AIP-eligible projects at existing NPIAS airports	30,550	6,110
All AIP-eligible and most ineligible projects at existing and proposed NPIAS and state system airports	50,646	10,129

safety, security, and environmental projects as well as maintaining current infrastructure. These needs amount to about $1.4 billion per year over the period 1997-2001. Mandated safety and security projects and environmental programs (largely aircraft noise) are Federal Government projects that amount to about $600 million annually. The balance ($800 million) is for maintaining current infrastructure. Note that none of the 1997-2001 needs estimate is for capital improvement. $800 million is needed just to maintain what we have.

The estimated needs for high-priority AIP-eligible airport projects are $2.8 billion annually through 2001. To fund all AIP-eligible projects for the next five years would require four times this amount–$6.1 billion per year.

The highest estimate ($6.1 billion per year) is the amount that would be necessary to fund all AIP-eligible and most ineligible projects at existing and proposed NPIAS and state system airports.

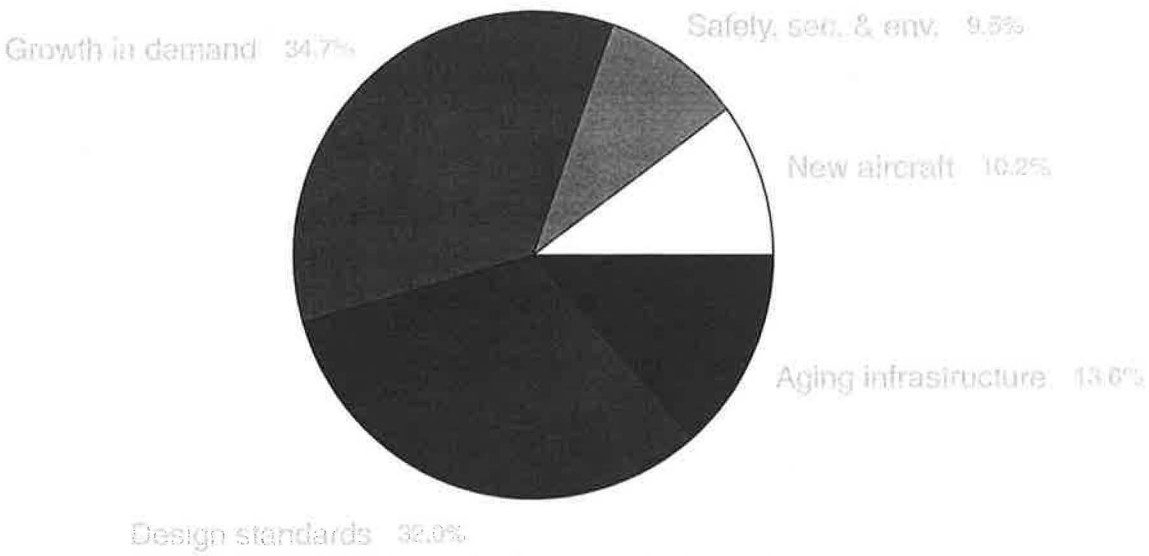


FIGURE 1 Airport development needs: factors affecting needs.

Factors Affecting Airport Development Needs

GAO's third objective in this study was to identify the factors that will influence airport capital needs–both the level of funds needed and the distribution among project categories

Anticipated Growth

The growth of demand for airport capacity represents about 35 percent of the total $31 billion in AIP-eligible needs certified by FAA over the period 1997-2001. The goal is to reduce congestion and delay, primarily at large commercial service airports. Most of these projects are to expand airfield capacity, but some are for the purpose of enlarging or rebuilding.

Meeting Design Standards

The next largest category of expenditure is for projects intended to bring airports up to FAA-recommended design standards. If an airport is not up to full standards, it cannot be fully productive. Most of those projects are for runways and taxiways, but they also include terminal improvements and purchase of land for airfield expansion.

Aging Infrastructure

GAO discussed questions of maintaining and updating infrastructure. Everyone–airports, airlines, consultants, and FAA field officials–said this is a significant part of airport capital needs. They also indicated that there is a backlog in meeting these needs. The goal is to reconstruct deteriorated infrastructure to serviceable condition. Ninety percent or more of those projects are for airfield pavement.

New Aircraft

New aircraft models under design or about to enter service could have important effects on airport capacity and productivity. This will require up-grade of existing facilities. About half of the $3.1 billion needed for such projects over the coming five years will be for runways. Access roads will account for an additional one-third. The remainder (about $500,000) will be used for projects related to airport-aircraft compatibility.

Safety, Security and Environment

These are high-priority items, particularly safety and security, that make up a relatively small percentage of

airport development needs, about 10 percent. Safety and security programs are mandated, and Congress is concerned about how to help airports fund mandated programs. The environmental programs are primarily for noise mitigation. While noise-related projects are voluntary, they are high-priority items.

Funding and Financing

One of the issues raised in the GAO report just released is how to meet development needs and how they are to be financed. Estimates are very helpful, but there are limitations. First is the question of accuracy. One cannot look at an estimate and assume that this is exactly what the project will cost. Discussion with consultants and studies reviewed by GAO indicate that preliminary estimates tend to be about 30 percent under the actual cost. Unanticipated needs are an important consideration. Everybody involved in airports and aviation knows there are many unplanned things that can come up. Many are related to safety and security. These items are not confined to large airports. Smaller airports, many of which have limited financial resources, find it particularly difficult to adjust their planned spending to meet unanticipated needs and mandated projects.

A third factor is the complexity of the decision-making process. Plans for development may have been laid out and the airport master plan completed; but there are other influences that may determine what actually gets done, or when it gets done. This complexity comes from many sources–airlines' unwillingness to support certain projects, community opposition, lack of AIP funding, etc.

An especially important concern at this time is the availability of funding. Many projects are planned, but where is the money to come from, and what will be the mix of that money (AIP, PFCS, revenue bonds, etc.)?

Ample data are available for the larger airports. At smaller airports the information is harder to find. At the large group of general aviation airports, information may be hard to find, incomplete, or altogether unavailable. This makes it very difficult to understand what their needs are and the mix of funding required.

The proposed AIP budget for FY 1998 is $1 billion. This is roughly half of the 1992 level of $1.9 billion. Now is an appropriate time to make decisions because reauthorization of AIP is coming up in FY 1998. Many changes and adjustments can be looked at and considered. As we move forward to the next century this is an opportunity to look at airports, the relationship with the federal government and the private sector in funding airports, and where the financing will be coming from.

Phase two of the GAO study will assess capital spending in the aggregate from all sources, for all airports. It will be very difficult to get information. GAO would welcome any suggestions you might have on how to obtain information that we could use.

Comprehensive data to track airport needs and investment are not available. Such data are indispensable if we are to understand what has happened and where we are going. It is vital to obtain improved financial reporting by airports.

VIEWS OF AVIATION ORGANIZATIONS

A broad selection of senior executives of civil aviation organizations were invited to take part in the workshop and share their views on issues of need and financing. Summaries of their presentations are given below. The views expressed are those of individuals and do not necessarily constitute formal position statements of the organizations they represent.

AIRPORT OPERATORS' VIEWS

David Z. Plavin
Airports Council International—North America

At the start, I want to express my thanks to FAA for supporting and TRB for hosting this event. Today we are having a conversation that could be had only in Washington. The rest of the country, I guarantee you, has different perspectives on the issues we will discuss today. Also, GAO is to be commended for putting some order into this discussion. GAO has done a very good job of identifying the elements that account for the differences among the various needs estimates. It would not be worthwhile to spend time on the details. The report speaks for itself; it is straightforward and comprehensible.

The Presentation

Before taking up issues that are of concern to airport operators, it may be illuminating to look at factors that influence the present situation. The needs assessments that have been carried out in the past year or so by ACI, the American Association of Airport Executives (AAAE), the Air Transport Association (ATA), and several other parts of the aviation community have been prompted by congressional inquiries about existing funding sources and whether there should be new ones to replace or supplement the present airline passenger ticket tax.

The ticket tax is a revenue source that goes back many, many years to the period well before deregulation. It is a surcharge on air fares (currently 10 percent). While there is debate about the rate of taxation and whether it is airlines or passengers who pay the tax, the fact remains that it is the primary source of monies for the Airport and Airways Trust Fund.

A related problem is that the Trust Fund is not necessarily being used for the purposes for which it was intended. The Trust Fund was designed to be used for capital improvements to the FAA-operated air traffic control system, airport development, and to the extent that there was some money left over, for certain operating expenses. Over the years, however, more and more of Trust Fund monies have been used for FAA operations, and less and less for the capital investment needs of FAA or for capital grants to airports under the Airport Improvement Program (AIP). AIP grants represent only one small part of the broader set of issues that relate to the question of what passengers are paying.

In 1990 there was a major debate that culminated in permission for airports to levy a Passenger Facility Charge (PFC). The PFC is an interesting animal because it is an exception to federal law that otherwise prohibits airports from charging passengers directly. Under federal law, the PFC is the only way that an airport can charge passengers directly.

More to the point, passengers pay for *everything* in the system—with the exception of a small contribution from the general fund, which is getting smaller and smaller.

The passenger pays the ticket tax. In one form or another the passenger pays fuel taxes, fares, and airport fees and charges. When you look at it, there is precious little that taxpayers in general pay for this. It is almost entirely a user-funded system. This is critical to understanding where we need to go in the future. The discussion we are having today really is not about needs. Everybody knows that needs, however you define them, are much beyond what federal resources including airport PFCs, could ever hope to fulfill. The sum required is many times larger than any amount ever appropriated to airports in a given year. Even if you add PFCs on top of that, we are still well short of meeting any reasonable definition of need.

What I meant when I referred to this meeting as an "inside-the-beltway" discussion is that only in Washington could an airline association present a set of numbers about airport needs and have it be given any credibility at all. In Washington, fortunately for ACI and AAAE, they even pay attention to what we say. The fact of the matter is that airlines are in no position to understand what airports need. They do not have access, they do not have the perspective, they do not have a broad view, and they do not have a long-term view. However, they will pay some of the cost, and it is not surprising that the airlines tend to understate what those needs are. Their concern is that if people think the number is really big, airports would be permitted to fund them. What a terrible thing! Airports

would actually be permitted to fund needs. This is a frightening prospect to airlines. This discussion is really not about what the needs are. It is about who pays, who decides who pays, and who controls who pays. Ultimately, that is what today's discussion is about.

Privatization Experiments

Let me step back a second. There are all kinds of things going on in parallel that relate to this. We have five airport privatization experiments that were authorized by the last authorization bill. It is important to understand that is part of the same issue that we are talking about now. The privatization experiment is basically an admission that we recognize there are needs out there we cannot pay for under present funding arrangements. Some other sources of money must be found. It also says there are some private suckers out there willing to put some money on the table. Let us see if we cannot bribe local governments to accept the idea of privatization by giving them the right to take airport money and use it for general local government purposes, a right they do not now have under any other part of federal law. So, apparently in the interest of privatization, revenue diversion is a good thing. That is what the federal statute permits and encourages. As long as it does not put the funding responsibility on Congress, let us see if we can find some other source of money to pay for the system. Privatization seems to be the ideology *du jour.*

Airports are like every other government institution in this country; they have local, state, and federal dimensions to their business. To be sure, there is no question that there is a federal interest. Airports are a part of a national aviation system that the Federal Government has an interest in maintaining. The fact that they do not feel they have an interest in paying for it is another question. But they *do* have an interest in maintaining it. Hence, the sense in Washington is that airports are indeed part of a national system and ought to be controlled as part of a national system. If there is not going to be a federal program of investment for airport capital needs, we must also recognize that we have to devise something to take its place.

Congress does not want airports to have the right to do this because they might actually raise their fees high enough to pay for these improvements. Airlines also favor legislated control on the grounds that they do not have enough market power to compete with the big airports when it comes to negotiating rates and charges. This philosophy of legislated control lies at the heart of the whole issue before us. In fact, if airlines were to acknowledge that they have enormous market power, the whole issue would go away.

We should take a lead from the Canadian book and acknowledge that there is a market out there. Market power exists *throughout* the aviation system. Let us see how market forces determine the outcome. Maybe deregulation of airlines should be extended to airports. We will have to see if there is really a need to regulate because of the Federal Government's continued interest. The Canadians made the determination that government interest alone is not a sufficient reason for regulation with respect to airports and the air traffic control system.

The Airport Improvement Program

Let us come back to AIP because that is really where we began on this issue. AIP is the federal investment program that provides grants to airports of all sizes and types: big commercial airports, small general aviation airports, and everything in between. AIP has been authorized in recent years at levels approaching $2 billion. Last year, the airport community was fortunate in being able to persuade Congress that we needed to stop slashing airport grants and to come out of the process with an authorization of $1.5 billion.

The President's budget this year says that airport capital funding has to be cut. The discretionary portion of the budget is being squeezed, and AIP funding must be reduced to the level of $1 billion. The question is, what is Congress going to do with that? In order to put any money back into the airport system, some other part of the transportation appropriations package will have to be used to replenish AIP. If no new money becomes available for airports, the appropriations package comes with a message that says in effect: "Let's make it $1.2 billion. Airport operators ought to be happy that it is not as low as what the Administration put forward. Go away, don't bother us, we're busy balancing the budget."

It is not going to happen that simply. Airport needs continue to grow. We saw that in the discussion about airport needs in the GAO presentation earlier today. The only quarrel I have is not a major one. It is a subtle one about what is characterized as infrastructure improvement, airport capacity, a lot of expansion to meet airport standards, and safety and security programs.

The point is that even though there are references to allocating roughly 30 percent for capacity enhancement and an additional 30 percent for meeting FAA standards, those programs truly are the reason that the federal government is in the business in the first place, i.e., protecting the safety and security of passengers and other

users of the airport system. Protecting the safety and security of the system *is* the federal interest here.

Questions about what happens in the rest of the airport allocation have obviously already been decided. Congress has decided that, even if we do not let airports fund it, it is still the airport operators' responsibility.

Definition of Needs

The issue about how you derive needs is a very tricky one because it will differ from one airport to another. Mr. Chambers and Mr. Aussendorf alluded to this in their comments. It is very simple to sit here and say here is a $10 billion annual need or a $60 billion six-year need, or any other number that you want to come up with. In fact, however, nobody but the people in the community running the local airport facility can make an intelligent judgment as to what the needs are for that facility. They really cannot accede to someone else's notion of what is needed.

We know that over a long period of time, the volume of activity in our airspace has been growing. The number of airport facilities that can accept that volume is not. It seems unlikely that during our lifetime we will see any significant number of new airport facilities being built in the United States. Today's airport facilities will grow only at the margins. We will be able to add a piece of a runway here, a new runway there, and one or two decommissioned Air Force bases close enough to major communities to represent an effective increase in new capacity. We are not going to see any significant new capacity in the United States in the near future.

Projects take a long time because there is a *process* associated with them. There is the environmental process, there is the community consultation process, there is the airline consultation process, there is the federal approval process, and then design and construction. It is not unusual for a major project to take 10 years from the time it is first decided to go forward, until it actually is ready to provide service to passengers. In that time we are likely to be faced with an entirely new industry. We are talking about new types of demand, about airlines that have come and gone, about communities that have grown or shrunk. In fact, it is not possible to be sure that the system of today is going to exist in the same form 10 years from now. That will obviously not be the case across the board. Individual airports will find themselves in very different circumstances. To aggregate them misses the point.

Finally, there's the issue about how these needs manifest themselves. With growing demand, with growing activity in the system, and without increased capacity, we are facing a reduced level of service. I am not talking about just runways, acceptance rates, and air traffic control systems. I refer to the capacity of the system as a whole. The whole question of capacity is really a function of what level of service to the public we are ready to provide. We can accommodate more and more and more in this bag. The problem is that we already have seven pounds in this three-pound bag. And soon we will have to accommodate more.

Facing Reality

When I first joined the Port Authority of New York and New Jersey as Director of Aviation, I was told that the three major metropolitan area airports were long since out of capacity. In fact, the number of passengers and the amount of cargo shipped through these airports continues to grow. What that means, however, is that in airports across the United States, the quality of service and the level of service, continue to deteriorate, producing congestion, delays, and all kinds of problems that passengers and shippers experience, in trying to use these facilities. This will continue to be the case, and it will get worse. This is also the piece that the Federal Government will wash its hands of. This is the piece where the Federal Government will claim that it has no interest. It will be up to agencies at the local level to deal with these needs.

The bottom line here is that it is time to face reality. The Federal Government is not going to play a significant financing role. The balanced budget squeeze will guarantee that. It is time to deal with the fact that we have to let the system do what it can do. That is to function as a commercial system. The government will have to allow the aviation system and airports to function as the commercial entities that they are and to move rapidly in that direction. We cannot be in a situation where we put our heads in the sand, enpanel commissions and demand answers we already know. To continue in the way we are now headed will put us in a position of desperately falling further and further behind in meeting the needs that everybody agrees are already manifest and growing.

THE AIRLINES' PERSPECTIVE

Thomas Browne
Air Transport Association of America

Introduction

I wish to thank Mr. Plavin for his rather provocative remarks. However, I do take exception to the assertion that airlines do not know what airports need. ATA

TABLE 1 ASSESSMENTS OF AIRPORT REQUIREMENTS

- ACI-NA and AAAE: $10 billion per year
- ATA: $5-6 billion per year
- Coopers and Lybrand: $7 billion per year
- GAO: $1.5 - 10.1 billion per year

TABLE 2 PRIMARY AIRPORT CAPITAL IMPROVEMENT PLANS, 1996-2001 (Preliminary data)

	1996 AMIS	1997 AMIS
Large Hubs	$11.3 B	$14.0
Medium Hubs	3.5	4.2
Small Hubs	2.9	3.0
Non Hubs	2.1	3.9
TOTAL NEED	$19.8 B	$25.1

Source: 1996: 421 Primary Aiport CIPs
1997: 434 Primary Airport CIPs

members, on the whole, have a good understanding of needs at large commercial service airports. Much of the debate about needs and wants appears to be a matter of perspective. (What do airports want and airlines need, or conversely, what do airlines want and airports need?)

As Mr. Plavin correctly points out, the real issue is control. Who will decide what is built, in what time frame, and at what and whose cost? Should it be the airport community, should it be the airlines, should it be FAA? Clearly, all these parties should be involved, but what is the right balance of power and responsibility?

ATA Needs Assessments

At the present time there are five more or less independent assessments of airport system needs and capital requirements. The results of the U.S. General Accounting Office (GAO) study have just been released and presented in summary form here by Mr. Aussendorf and Mr. Chambers. Mr. Plavin has outlined the assessment carried out by the Airports Council International (ACI). Mr. Dickerson of the American Association of Airport Executives (AAAE) will present their findings following my remarks. A financial assessment of FAA, mandated by the Federal Aviation Reauthorization Act of 1996 and conducted by Coopers & Lybrand L. L. P., is now being circulated. My presentation today is a summary of the ATA's 1996 estimates of needs at primary commercial service airports and an expanded assessment of primary commercial service airports and 2,100 additional airports (non-primary commercial service, relievers, and general aviation) conducted in 1997. (Table 1)

These several studies range widely in their estimates of capital needs. The differences are attributable to several factors: the types of airports considered, the size of the various data bases, and the types of projects included. A major goal of the GAO study was to reconcile these differences.

The 1996 ATA needs assessment examined the capital improvement plans (CIP) of 421 primary commercial service airports. These airports account for 99 percent of enplanements, 99 percent of ticket tax revenues, and 99 percent of passenger facility charges (PFC) collected. The findings were that these airports have $19.8 billion in "scheduled" work over the five-year period 1996-2000. The estimates assume that all environmental and political hurdles have been cleared.

A criticism of the 1996 needs assessment was that it considered only primary commercial service airports. Accordingly a second assessment was made in 1997. The database was expanded from the 431 commercial service airports included in the 1996 assessment to slightly over 2,500 airports by means of the Airport Marketing Information System (AMIS) purchased from a private vendor. These additional airports consisted of approximately 2,100 other commercial service, reliever, and general aviation airports.

The 1997 ATA needs assessment found that work scheduled at primary airports amounted to about $20 billion over the period 1992-2001. The total for projects at all other airports in the AMIS data base was about $10 billion. Additional PFC revenues from nonprimary commercial service airports were negligible.

Recent Accomplishments

Since 1991, 13 new runways have been built with airlines assistance. The Passenger Facility Charge (PFC) has helped fund 17 new runway projects and 49 new terminal buildings or expansions. The total of all airline contributions to airfield and terminal capacity maintenance or expansion amounts to $4.1 billion.

What Remains to Be Done?

Table 2 is a comparison of primary airport capital improvement plans for 1996-2000 and 1997-2001. Projects

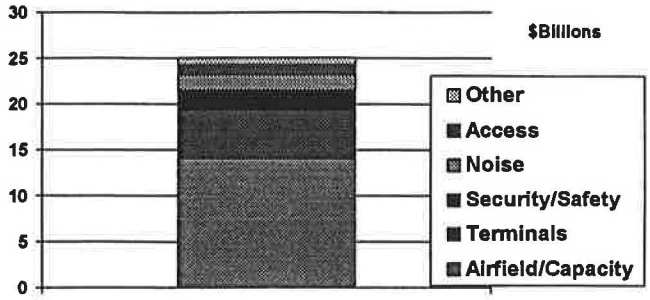


FIGURE 1 Analysis of primary airport CIPs, 1997-2001.

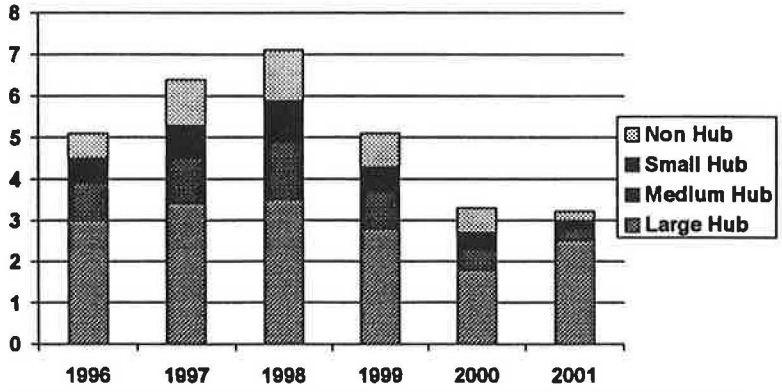


FIGURE 2 Primary airport CIPs by "State of Readiness" (1997 project).

at large hubs are estimated to be $11.3 billion for 1996-2000 and $14.0 billion for 1997-2001–slightly over 55 percent of the total needs of $19.8 billion and $25.1 billion for the two periods respectively. Most of the increase is due to new projects in Detroit and Miami ($2 billion each).

Figure 1 shows the distribution of proposed 1997-2001 expenditures by project type. Airfield capacity is the largest share, about $14 billion. The estimates in the security, safety, and noise categories are subject to possible change, depending on new mandates that may come from the Gore Commission.

Figure 2 depicts the flow of project starts from 1996 to 2001 at primary airports of various size. New Project starts are forecasted to peak in 1998 and then fall off by 50 percent or more by 2001.

Capital Requirements

Primary airports will issue debt to pay for the majority of capital improvements over the five-year period 1997-2001. Projects of less than $2 million are typically funded from retained revenues on a "cash" basis. Projects over $2 million are usually debt-financed over 15 to 30 years.

Assuming 20-year, five-percent, tax-exempt financing, primary airports are expected to lay out $2.9 billion for "cash" projects and $9.0 billion for debt service on $22.2 billion in financed projects. This will amount to $11.9 billion total outlays between 1997 and 2001.

Airports have several resources they can draw on. PFCs now being collected at 270 primary airports amount to about $1.1 billion per year. Roughly 150 other primary airports have the potential to collect an additional $600 million annually.

The AIP program could provide somewhere between $1.0 billion and $1.5 billion per year for airports of all types (with the largest share probably going to primary airports).

State aid amounts to about $300 million annually, mostly at smaller primary airports.

Concession revenues are an important source of funds, especially at larger airports. Consistent and reliable data on amounts are unavailable.

Financial markets have been traditional capital sources for airports–particularly larger airports with good

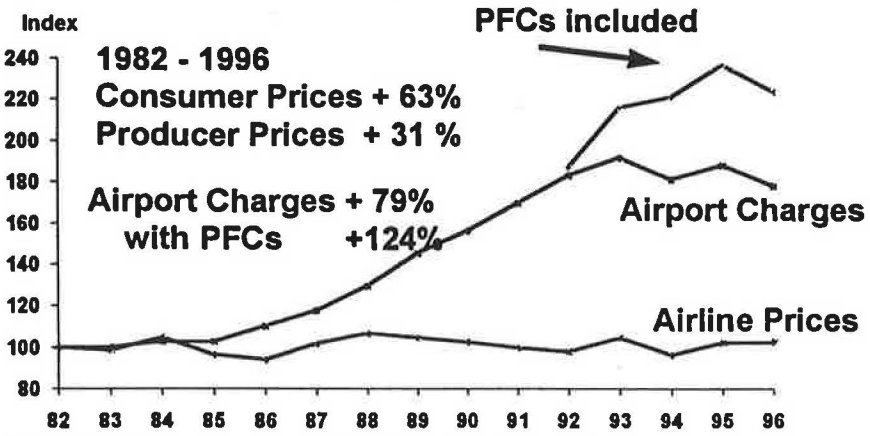


FIGURE 3 Airport charges, landing fee and rental costs *per passenger.*

Revenues Available Annually:	
AIP	$1.45 B
PFCs	$1.1-1.7 B
State Aid	$300 M
Airline Fees	$1.5-2.0 B
Concession Revenues	$???
TOTAL CASH AVAILABLE	$4.35 - 5.45 B +
Actual Cash Requirement Annually:	
Expensed Projects:	$400 M
Debt Service	$1.8 B
TOTAL CASH REQUIRED	$2.4 B

FIGURE 4 Assessment of available capital.

borrowing records and large traffic volume. Nonhubs and other commercial service airports often find it difficult to tap this source of funds.

ATA members paid $4.1 billion to airports in 1996. Roughly half of this amount went to capital improvements. An additional $800 million was used for other airport capital expenditures such as:

- Special facility bonds for carrier-specific maintenance base facilities, flight kitchens, etc.;
- Tenant finishes in new or expanded terminals; and
- Terminal remodeling.

Airport costs are among the fastest growing airline expenses. Figure 3 shows, on an index basis, airlines landing fees and rental costs on a per-passenger basis. In other words, how fast have airlines costs increased per passenger, taking into account growth that has occurred since 1982. Airline prices have remained almost flat for 15 years. As a result, carriers have not been able to raise fares to cover all of their expenses.

Airline costs have gone up 79 percent sine 1982. Producer prices have risen 31 percent in the same time frame. If PFCs are included, airport charges have grown to 124 percent.

Figure 4 summarizes the available capital from all sources. AIP funds, PFC revenues, and airline fees are the largest, and they are available to some degree at most primary airports. Small commercial service airports, relievers, and general aviation airports have only AIP monies and state aid for capital projects. The total revenue available is, by ATA's estimate, $4.35 billion to $5.45 billion, not counting concession revenues. The actual yearly cash requirement is about $2.4 billion. This suggests that some airports, at least primary airports, can meet their cash requirements and still find some funds for capital projects.

AMERICA'S FUTURE IN AIRPORT INFRASTRUCTURE

Spencer Dickerson
American Association of Airport Executives

Achieving consensus to maintain and expand airport infrastructure is vital to our Nation's future competitiveness. As world military competition is replaced by global economic competition, airport capacity in the United States is increasingly critical to our national economy.

Germany and Japan may be our largest economic competitors, but in terms of size and geography, each can produce goods and services internally with modern systems of roads and railroads. The United States, due to its size and geography, must have an efficient, high capacity airport system to move its people and resources in order to compete.

In the past four years, while annual airline passenger enplanements in the United States have increased 16 percent, annual investment in airport development has decreased 23 percent. AIP funds are down almost $500 million since the early 1990s. The Clinton Administration has not changed that course with its request in FY 1998 of just $1 billion for airport grants. Such trends create immediate questions about the adequacy of capacity in an airport system where development takes five to 10 years to complete.

The past few years have seen important development of a public and political will to avoid leaving an ever-growing national debt to future generations. But it is equally important to foster the public understanding that, if the Federal Government cuts debt at the expense of allowing transportation infrastructure systems to crumble or limits future growth, our generation is not doing future generations any favors. If we leave them without the basic facilities to compete economically on a global scale and to create wealth, we will fail them just as surely as if we leave them with a mounting national debt.

Like any business facing economic challenges, the Nation must balance cutbacks in current operating expenses and long-term investments in a way that meets the dual needs of current stability and future competitiveness. In the United States, public infrastructure investment has been cut in half over the past 25 years. We are investing less in infrastructure than any other G-7 nation. One alarming statistic is that we are investing at one-third the rate of the Japanese.

In the context of all transportation infrastructure needs, by far the most important questions for the present generation's legacy of governance are: Did we leave the Nation's ability to create wealth better or worse than we found it? Did we consume more than we produced? Did we leave the next generation with the transportation facilities to compete in the future? Answers to these questions about our stewardship of the Nation's infrastructure will not include explanations or excuses. We build infrastructure for the future, or we do not. It is our choice.

Development and maintenance of infrastructure are unique government responsibilities. Transportation infrastructure must often lead markets, and it requires investments in total systems, with both profitable and unprofitable segments, which only government has the incentive to make.

Airport development often takes a decade from planning to completion and usually suffers most in major markets where too little capacity was added before the local economy fully developed. Once major markets are mature, further airport development can become impossible—a stalemate that is bad for aviation and worse for business and economic activities that are never born under such local restraints.

Risk

By far the greatest risk is for government to allow underinvestment in the facilities that promote economic growth. The rare cases of "overinvestment" in airport infrastructure are almost always cases of facilities earning their return further in the future than originally planned, such as the case of Washington Dulles Airport. Underinvestment mistakes have a much higher cost and result in constraints on economic growth and lost economic activity, with associated ripple effects.

It is not essential—and not even important—for government to do the spending and the building, but it must assume the responsibility to see that the building gets done. In some infrastructure systems, government has the leverage to require beneficiaries of a system to pay for future capacity and for appropriate access. Telecommunications and highway programs are two examples of the Federal Government using regulatory leverage and dedicated national fees to ensure that infrastructure is funded by users.

The American Association of Airport Executives (AAAE) and the Airports Council International—North America (ACI-NA) have conducted periodic surveys to assess the capital development funding needs of airports throughout the United States. In 1990, 1992 and 1995, these surveys showed a consistent need for $10 billion annually for airport development, safety, and capital reconstruction. And just recently the General Accounting Office just completed its study on airport needs and

determined that total airport needs are $10.1 billion annually.

In contrast, the Federal Government has been providing appropriated funding from the aviation trust fund and local passenger facility charge (PFC) authority for a total of $11 billion over five years—approximately one-fifth of the needed investment. Adding airport bonds, PFC income, and other local revenues to the federal investment boosts the total current investment to just over one-half of the estimated airport development needs. The national aviation system can absorb this underfunding for a limited time, but at some point demand for airport capacity will overtake supply, prices will increase, and national economic activity will begin to suffer.

The Federal Aviation Administration cites 22 airports that are seriously congested, collectively experiencing more than 20,000 hours of delay per year. These delays cost the airlines alone over half a billion dollars, and the total cost is many times that figure if one calculates the delay costs for passengers and related businesses. FAA forecasts that unless airport capacity investments are made to keep pace, the number of seriously congested airports will grow to 32 in less than 10 years. At some of these airports, congestion will not be correctable due to local physical and political barriers, and it will become all the more important to make capacity additions at the remaining airports.

While we do not need to spend $50 billion a year on the national airport system, we do need to increase our present investment in airport facilities by almost 50 percent. Both internal needs surveys and the planned investments by global economic competitors make it clear that the United States is seriously underinvesting in airport infrastructure.

The world aviation market is extremely important. In 1994, the total economic contribution of aviation on gross world output was $1.12 trillion. World airlines served more than 1.3 billion passengers, transported over 23 million tons of freight, provided over 23 million jobs, and generated in excess of $250 billion in annual revenues—more than the GDP of most nations. By 2010, the projected economic impact is forecasted to grow by over 50 percent to $1.7 trillion. A market of such significance deserves the Federal Government's serious attention and strong commitment to infrastructure needs.

The Future

The Federal Government has three choices with regard to the Nation's future airport infrastructure:

1. Increase federal investment through a responsible and appropriate AIP program,

2. Provide incentives and tools for local governments to increase their investments to compensate for diminished federal support,

3. Neglect investment and permit future generations to pay the cost of that neglect.

Continuing on our current path is to choose the third option. Only Federal Government leadership can assure that we build the efficient, high-capacity, national airport system that America will need in the future to compete successfully worldwide.

THE PERSPECTIVE OF REGIONAL AIRLINES

Walter S. Coleman
Regional Airline Association

The Regional Airline Association appreciates the opportunity to offer the regional airlines perspective on airport requirements.

Regional Airline Background

There are 109 U.S. regional airlines. The 20 largest regional airlines fly 8.5 percent of the revenue passenger miles. Regional airlines serve 725 airports in the United States. Within the 48 contiguous states, regional airlines serve over 500 airports. At over 300 airports in the 48 contiguous states, regional airlines are the exclusive providers of scheduled airline service. Regional airlines make over 12,000 departures every day. By comparison, the major airlines, with a fleet twice the size of the regional fleet, make 18,000 departures a day. There are 2,100 aircraft in the regional airline fleet.

Since deregulation in 1978, regional passenger enplanements have increased from 11.3 million to 62 million. 62 million passengers represents about 11 percent of all passengers carried. The 62 million is also over a fivefold increase in passengers. During this same period the size of the regional airline fleet has doubled. Over five times the number of passengers carried with a fleet that has only doubled is a remarkable achievement. Imagine the demand on airports if the number of aircraft had increased proportionally to the passenger enplanements.

The regional airline fleet requires far less airport infrastructure than large turbofan aircraft. Regional airliners, even the 50-seat regional jets, have takeoff gross weights that are very low compared to the large turbofan fleet. Most regional aircraft average around 25,000 to 35,000 pounds. Nearly all of the fleet can land and takeoff in under 6,000 feet, and they do not require the runway or taxiway widths necessary for the wide landing gear of most turbofans.

Regional airlines have between 30 and 45 percent of all airline departures at 14 of the 20 busiest airports. That is a lot of departures, but it is not necessarily a lot of demand on airport infrastructure.

Airport Needs of Regional Airlines

Regional airlines may have significant ramp space requirements at many airports. It is desirable to have the airline departure lounges close to the aircraft to minimize the time required to move passengers from the terminal to the aircraft. One of the advantages in flying regional airlines is that the boarding process is considerably shorter than that of large jets. In many cases passengers can be boarded just 10 to 15 minutes before the scheduled departure time.

Regional airlines need to find solutions to the problems of ramp safety and weather protection when crossing ramps. Some regionals are now using nose-in parking to covered walkways, and one has developed an adapter to connect loading bridges with large turboprop aircraft. There continues to be a need for airlines and local airport authorities to cooperate in developing plans that provide a similar level of service to passengers flying to and from communities served by regional carriers.

Reaching Agreement

There is an immediate and a continuing need for airlines and airports to reach agreement on what needs to be done. Airports are an integral part of the aviation system. They are dependent on the success and fiscal health of the airlines that serve their communities. Decisions on airside and landside projects must have the agreement of those who produce the revenue, i.e., the airlines.

Passenger Facility Charges are something that regional carriers and airports have found little agreement on. RAA members objected to PFCs when they were first proposed and continue to resist the imposition of this tax and the requirement that airlines collect it. Regional airlines will continue to participate in the deliberative process as PFC-funded programs are proposed, however it is a time-consuming and difficult task for many regional carriers.

On the other hand, we have had agreement with the smaller airports on how to address the issue of previously uncertificated airports now served by FAR Part 121 aircraft. This is the Part 139 issue, and the difficulty lies in determining which elements of Part 139 should be applied to airports that receive service from aircraft with 10 to 30 passenger seats. This has been a very constructive and reasonable dialogue between airport and airline representatives.

Few doubt that the mutual objectives of airports and regional airlines is to provide safe and convenient scheduled air service. The decisions are then limited only to agreeing on what achieves the desired level of safety and convenience at reasonable cost.

BUSINESS AVIATION PERSPECTIVES

John W. Olcott
National Business Aircraft Association

The National Business Aircraft Associaton (NBAA) represents companies that use general aviation for business transportation. NBAA member companies are economic leaders in our Nation. They have annual revenues of in excess of $4 trillion and employ over 16 million people. They are the most active users of business aviation in the world. The last year they purchased close to $1 billion in airline tickets. The bottom line is that they need transportation. Business aircraft are major users of the Nation's air transport system.

Today we have heard from several representatives of the aviation community: major airlines, regional airlines, commercial service airports (large and small), and now the more sophisticated end of general aviation (GA) airports. NBAA members use airports of all sizes throughout the system as destination points and connecting nodes, and each is important. The 29 major hub airports are extremely important, but NBAA members do not use these airports very much. At the top five airports in terms of airline activity, general aviation represents less than five percent of the operations, and this activity is spread throughout the whole day. At the top 20 air carrier airports, GA represents less than 10 percent of all traffic. On the other hand, at the top 20 GA airports scheduled air carriers represent almost none of the total activity.

The airlines (major carriers and regional operators) serve approximately 550 airports in the contiguous United States, but 75 percent of all airline passenger emplanements are concentrated at 55 major locations. The business aviation community serves 5,500 airports—ten times the number with any type airline service and 100 times the number with convenient and frequent commercial service. Walter Coleman of the Regional Airline Association pointed out with great and justifiable pride that you can reach any place in the United States with two stops on a commercial carrier. Business aviation can reach any place in the United States with direct (nonstop) flights. In fact, a NBAA member-company airplane flew from Tokyo to Teeterboro nonstop yesterday. The capability of the business aviation community is indeed great, and a very important part of the Nation's air transport system.

We are here today to address the Nation's air transport system, a vital enabling technology for meeting

national economic and social objectives. Transportation has always driven the economy, and it will do so in the future. In fact, as we are about to enter the 21st century, The Nation's economic strength will be as important, and perhaps more important, than its military strength. That is a position that was well-expressed in the statement of Secretary of Commerce Mickey Kanter to President Clinton in a Commerce Department report issued last summer.

Who should be responsible for the development and maintenance of the air transport system? Obviously the beneficiaries should be responsible for the funding of the system. The question is, who are the beneficiaries? Are they the direct users of the system? Yes. But there are many nondirect users of the system and many beneficiaries who never fly on one of the ATA member companies' aircraft, never fly on a regional airliner, and never fly in GA aircraft. Property values are higher where there is good transportation. Grandparents can see their grandchildren because they can fly on low-cost air carriers. Three thousand people can be employed in a little town of 4,000 because that town is linked to the rest of the Nation through a GA airport.

Air transportation is clearly vital to serve the needs of the nonusers, but it is also vital to serve the needs of the Federal Government. Today's debate is driven by the need to balance the budget. The most effective way of balancing the budget is to have a strong economy. The deficit was less than anticipated last year because the economy was better than anticipated. There was an article in the Washington Post (April 14, 1997) on how the deficit is lower than people had hoped for because the economy is stronger. In the final analysis the government benefits significantly from the air transportation system. Data from a 1993 study by Wilbur Smith indicated that air transportation in the early 1990s contributed $771 billion annually to the national economy. A conservative estimate of tax revenues from the economic activity stimulated by aviation is about $30 billion dollars—10 to 15 times the amount of investment that the Federal Government puts into the air transportation system. If the Federal Government walks away from its responsibilities for air transportation, it will be the loser, and our Nation will be the loser.

There needs to be a partnership among all components of the air transpport system—major airlines, regional carriers, general aviation, large airports, small airports, and the Federal Government. The air transport system, especially airports, must be sustained and modernized. We must move forward collectively to solve the problems of air transport growth and development and make sure that we do not end up with a second-rate air transport system as we move into the 21st century.

STATE AVIATION AGENCIES

Lori Lehnerd
National Association of State Aviation Officials

This presentation covers the following topics: background on state aviation agencies nationwide, airport system components, statewide aviation system planning, diversity of these plans by state, airport capital improvement plans, States' airport development needs, comments on other needs assessments presented today, and finally, recommendations and conclusions.

Background

All 50 states, Guam, and Puerto Rico have state aviation agencies. All are members of the National Association of State Aviation Officials (NASAO). Four states are represented at today's meeting: Minnesota, Maryland, New Jersey, and Virginia. All states have statewide aviation system plans and airport capital improvement plans. Half of the states have prepared aviation economic impact studies. About ten percent of the states own and operate their own airports.

State aviation agencies are involved in a variety of funding programs. Forty-seven states provide a matching share for projects funded under the Airport Improvement Program (AIP). In addition, 12 states have their own aviation loan programs, and 20 states fund maintenance and navigational aid programs. States spend between $450 and $500 million annually on airport development. Twenty percent of those funds are used to match federal AIP grants; the remaining 80 percent goes for state-only grants and loans. The funding is provided for a variety of projects, including planning, construction, maintenance, land acquisition, and navaids. NASAO publishes a report annually titled *State Aviation Database* which includes data on each state's aviation programs and related financial information.

Specifically, in fiscal year (FY) 1995, states spent $450 million on airport development. This funding was distributed to all categories of airports across the country. Of the $450 million, a total of $360 million was distributed as "state-only" funds, the bulk of which are allocated to funding projects at primary hub airports C a total of about $235 million. In FY 1995, state-only funds were distributed to general aviation airports ($73 million), reliever airports ($22 million), nonprimary commercial service ($7 million), and primary nonhub ($23 million).

A look at the history of state apportionment funding for general aviation airports under AIP shows a substantial decline. In FY 1992, when AIP was at the $1.9 billion

level, states were allocated about $228 million (or 12 percent). In FY 1996, AIP declined to a low of $1.45 billion, and states received $159 million (11 percent) in apportionment funds. It is difficult to compare this funding history with the allocation this year, (FY 1997), because the Federal Aviation Authorization Act of 1996 added funding for reliever and non-primary commercial service airports into the state apportionment set-aside, increasing it to $270 million.

Even more significant than the declining share of funding to the states over the past five years is the critical impact expected if the Clinton Administration's $1 billion budget for AIP in FY 1998 is adopted. In this scenario, states will see a 50-percent cut in state apportionments, significantly affecting their ability to fund critical airport development projects. The state AIP share will decline from $270 million to an unthinkable amount of only $137 million.

Another negative impact on the states from last year's reauthorization legislation was the change in the system planning set-aside under AIP. The set-aside, an average of $10 to $13 million annually over the past several years, has been used by state aviation agencies to fund the preparation of statewide aviation plans. The legislation deleted this planning allocation from AIP.

Airport System Components

State aviation agencies are involved in all categories of airports, from the large hub primary airport to the smallest general aviation facilities. They are directly involved in National Plan of Integrated Airports Systems (NPIAS) airports, as well as non-NPIAS facilities, and public and private-use general aviation (GA) airports. As noted earlier, many states own airports that vary in size from small GA fields to facilities as large as Baltimore-Washington International Airport (owned by the Maryland Aviation Administration).

Statewide Aviation System Planning

Statewide aviation system plans are the primary vehicle for determining aviation development needs. State agencies follow a clearly defined and systematic process for determining capital needs and priorities for airports in their state. The planning effort is coordinated with local Metropolitan Planning Organizations (MPO) and FAA regional offices, as well as with the airport sponsors. The system plan is updated on a continual basis and provided to FAA as input to NPIAS and to MPOs for integration into local and regional transportation plans.

State aviation system plans are diverse across the country. They are developed to deal with complexity of overall aviation needs within the state and must take into consideration state aviation agency resources, state population and area, and transportation infrastructure needs, the types and sizes of airports, the number of NPIAS and non-NPIAS locations, and the variety of aviation user requirements.

An important result of the state system plan is preparation of airport capital improvement plans (CIP), which look at the specific development needs of individual airports. CIPs are prepared for all categories of airports in each state. The CIP is a five-year plan that includes by fiscal year, the type of project and the anticipated funding sources, e.g., FAA grants, passenger facility charges (PFC), and state or local funding. These projects are coordinated with FAA and the airport sponsor and prioritized by year.

NASAO Needs Surveys

NASAO has surveyed its members on airport development needs. In 1996, in an effort to prepare for the AIP reauthorization process and to support appropriation of maximum federal funding, NASAO surveyed the states requesting funding and needs data for general aviation, reliever, and non-primary commercial service airports. NASAO did not request data on primary airports because ACI, ATA, and AAAE had already gathered this information. For the purposes of the NASAO survey, a need was defined as the "total amount of federal funds that your state is requesting in FY 1996 under your state's Airport Capital Improvement Plan." NASAO asked the states to consider in their response NPIAS airports, AIP-eligible work, safety and security mandates, new technology requirements, local community needs based on the information they had gathered through various planning documents and the CIPs developed for individual airports. The results of this survey are tabulated below.

FY 1996 Needs Survey Results

The amount under AIP apportioned to the states in FY 1996 was $159 million. As Table 1 shows, the needs defined by the states for general aviation alone were about $500 million, indicating a shortfall in general aviation funding for FY 1996 of over $340 million.

In 1997, NASAO, working with the U.S. General Accounting Office (GAO), conducted a survey of non-NPIAS airports. The non-NPIAS airports are facilities

TABLE 1 FY 1996 NEEDS SURVEY RESULTS

Airport Category	Number of Airports	Funding Needed	Responses	Response Rate
General Aviation	2522	$500 million	51	98%
Reliever	225	$360 million	38	73%
Non-primary CS	150	$275 million	38	73%

that are eligible for state-only dollars. They include mainly public-use facilities. The major finding of this survey was that there are at least $100 million in additional needs that are not even described in the NPIAS.

There were some limitations in the data gathered. In many cases, states constrained their needs estimate to remain within the federal allocation that they expected to receive under AIP. State agencies calculated their state apportionment funding for that fiscal year and then limited their needs assessment to fit within that funding constraint. Other limitations were: 1) the survey requested only expected federal funding and did not include other sources, 2) not all states responded, 3) most of the work included was AIP eligible, and 4) non-NPIAS data were not always provided.

Other Needs Assessments

NASAO is pleased that the needs data considered by GAO in the preparation of their needs report, included NASAO inputs. NASAO is particularly pleased with two of GAO's findings:
1) "planned costs are usually less than the actual costs," which states have found to be the case across the country, and 2) "as the total number of passengers at an airport decreases the airport's reliance on AIP funds increases." That is very important to many of the smaller general aviation airports within the states.

The ATA assessment basically looked at primary airports and had little information on non-AIP eligible work. AAAE and ACI estimated general aviation needs at about $667 million. Based on data gathered by NASAO (which was only the 90 percent federal share), the estimate was about $600 million for FY 1996. If that is calculated as a total funding need, the figure becomes $667 million. NASAO's needs estimate therefore agrees with that of AAAE and ACI. This also holds true in the reliever and non-primary service airport categories.

In looking at NPIAS, a majority of the input is from a bottom-up approach taken by state aviation system plans and MPO documents. However, NPIAS does not include ineligible AIP work and non-NPIAS airports. The other concern with the NPIAS data is that inputs from the block grant states are limited.

Conclusions

For large airports, increased PFCs and additional revenues from nonairline sources are viable options. But that really does not help smaller airports. NASAO has already discussed with FAA a variety of innovative ways to stretch AIP funds further. One possibility is a flexible federal share. States are willing to increase their share of AIP from five or ten percent up to as much as 20 or 30 percent, whatever is needed to make AIP go further. Of course, there are some states that cannot do this, and they will have to remain at a five-percent match. For the states that have the resources and the right conditions, flexibility would help in allocating AIP funds to go further within their state.

Another option is greater flexibility in the use of state specifications in AIP projects. NASAO has asked FAA to look into replacing FAA pavement standards at airports with a pavement strength of 60,000 lb. or less, to an approved state specification. Using state specifications at smaller airports will provide a significant cost savings in AIP projects. Another possible option is lessening the federal procurement standard required under AIP (like the Davis-Bacon Act). But this may be a little more difficult to achieve.

NASAO recommends that states pursue new sources of grant funds. The states realize that the federal budget for airport development is declining, and that they will be expected to provide additional dollars in the future for the aviation system. This will not be easy. Most states, like the federal government, face tight financial constraints.

NASAO recommends maintaining a bottom-up approach to aviation planning. It is very important that states, as well as airport sponsors and MPOs, be able to make inputs into NPIAS and other national aviation plans. AIP should be continued for all categories of airports. NASAO agrees with the many other meeting

attendees that there is a need to determine a realistic estimate of the cost of airport system development nationwide. NASAO will continue to bring these funding needs to the attention of Congress and the Administration. NASAO plans to continue to work with FAA to pursue innovative ways to improve AIP, to support more overall funding for the program, and to make the dollars go further. NASAO remains committed to the important partnership that exists between the state aviation agencies, FAA, and airport sponsors.

THE VIEWS OF METROPOLITAN PLANNING ORGANIZATIONS ON AIRPORT SYSTEM CAPITAL REQUIREMENTS

H. Alan Speak
Southwestern Pennsylvania Regional Planning Commission

Introduction and Background

For those in the aviation industry, the acronym MPO may not be well known, even though it has been around for about 35 years. It stands for Metropolitan Planning Organization. These organizations undertake areawide planning and transportation planning in the metropolitan areas of the country. MPOs primarily focus on surface transportation planning (highways and transit facilities) and have a rigorous transportation planning process that was clearly defined by the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1992. While metropolitan areas have been required to undertake the 3C process of "continuing, cooperative and comprehensive" planning since 1962, ISTEA calls for a more integrated planning process to better meet the needs of all constituencies. In addition, ISTEA provides metropolitan areas more control over transportation decisions in their metropolitan area.

Over the past 15 years, with the encouragement of FAA, a few MPOs have undertaken the preparation of a metropolitan/regional airport system plan. This aviation system planning was funded with the system planning set-aside for states and metropolitan areas that was contained in federal legislation. The more prominent of the MPOs that have participated in this aviation system planning process are Los Angeles, Oakland, Salt Lake City, Dallas, St. Louis, Detroit, Atlanta, Philadelphia, and Pittsburgh.

At best there is a loose affiliation of MPOs across the country that talk with one another about aviation system planning. While the MPOs have a national association, the National Association of Regional Councils, NARC, they are everything to all MPOs, regional planning commissions, Council of Governments, etc.; and aviation is not a top-priority issue with them.

When TRB stated that they wanted a collective view of the industry, rather than multiple, fragmented, individual opinions, I knew it would be difficult to prepare a statement for MPOs and I can assure you that was the case. MPOs as a group do not have a capital needs list for airport improvements in metropolitan areas across the country. Individual MPOs, such as Philadelphia, have prepared a capital needs program as part of their Regional Airport System Plan. The Philadelphia program clearly identifies airport capital needs to 2020. Furthermore, they estimate that only 60 percent of those capital needs will be constructed due to the reduction in the AIP.

In late January 1997 the Secretary of the Department of Transportation published in the Federal Register a proposed policy statement encouraging Metropolitan Planning Organizations and Airport Operators to cooperate in transportation planning. This policy statement was directed at the MPOs serving urbanized areas of one million or more in population and clearly indicated that funding of aviation system planning activities in the large metropolitan areas would receive a high priority within the FAA and DOT. While DOT and FAA, through this policy statement, encourage airport operators to become involved and cooperate in the transportation planning process in metropolitan areas, it is difficult to see the aviation mode being considered an equal partner in the transportation planning process when their own aviation system planning process at the national level is wanting.

As you may know, NEXTEA, National Economic Crossroads Transportation Efficiency Act, has been released by the administration. It is believed that the administration's proposal will serve as the starting point for a reauthorization bill. However, it is also believed that there will be significant changes in the legislation. This piece of legislation will form the next generation of legislation for surface transportation and should incorporate provisions to assure participation in the process by the aviation stakeholders.

As mentioned above, there are relatively few MPOs that are currently involved in the aviation system planning process. However, we have been able to assemble in a short time the views of representatives from Philadelphia, St. Louis, and Pittsburgh who have considerable experience in aviation system planning. We believe this statement is representative of Metropolitan Planning Organizations. Representatives from Philadelphia, Roger Moog, and St. Louis, Paula Raney, are in attendance at this workshop. William Keller from the St. Louis MPO actively participated in the development of this statement but was unable to attend this workshop.

The balance of this statement will address the three issues that have been identified as the primary focus of this workshop.

Comparison and Discussion of Estimates of Airport System Capital Needs

After listening to six previous speakers address the topic of comparing the various estimates of capital needs and suggesting ways that they might be consolidated into one list, I wondered if there would be anything left to say. I am pleased, but you may not be, to say that I believe that there is.

MPOs do not believe the various aviation stakeholder organizations will be able to overcome their individual orientation and develop an integrated, objective, prioritized, fiscally restrained list of capital improvements for America's airports. This does not mean to say it cannot be done nor should not be done. What it does say is that assembling a "basket of projects" in which every stakeholder group gives a little to get a little, is not the way to develop a national priority spending plan for the Nation's airports. Neither is the much maligned National Plan for Integrated Airport Systems (NPIAS) which has packaged individual airport wishes to arrive at a total estimate of dollars needed by airports for Congress.

We believe what needs to be done at the national level is the same thing that the FAA has had legislation for, developed Advisory Circulars for, and funded for 15 years, which is to prepare a National Airport System Plan. This National Airport System Plan would identify the airports to be included in the plan, specify their role and function, and describe airport improvements needed to reach the plan's time horizon. As part of this plan, each airport would have a five-year capital improvement program and a one-year capital budget.

FAA's role in directing the planning process would be fourfold: 1) provide funding to undertake the preparation of the National Airport System Plan, 2) set the specifications for the plan, to include a capital needs assessment, [this is the most critical phase of the process], 3) review the plans that have been prepared to assure compliance with the established specifications and other issues, and 4) formally adopt the plan as the National Airport System Plan. Notice, I did not say the FAA should prepare the plan.

The plan should be prepared with the building block process that already exists with the MPOs and the states. These planning units may prepare the plan themselves or engage consultants to prepare the plan *in strict conformity to the specifications established by the FAA.* These plan specifications would be closely reviewed by the stakeholder groups before they are promulgated as the specifications for the preparation of a National Airport System Plan.

It has been said by FAA representatives that FAA does not own airports and cannot decide to implement specific improvements at an airport. We acknowledge and accept the local ownership role. However, it is believed that FAA should know what it wants as an airport system for the country. Those metropolitan areas and states that have participated in the airport system planning process know what they want for an airport system for their area. FAA should be able to do the same.

Some have commented that FAA would not be facing this funding crisis if the Federal Aviation Administration had a well-founded National Aviation System Plan which clearly defines airport needs. The current approach certainly does not. It provides considerable flexibility and the opportunity for political involvement. Perhaps this is what Congress really wants. However, in a time of a funding crisis for airport improvements, the current system will not work.

Current Methods for Allocating Resources

Instead of having population-based formulas to distribute AIP funds, perhaps funds ought to be distributed based upon need as established for large, medium and small hub airports, business airports and general aviation airports. The level of funding for these categories could be determined from the needs established in the National Airport System Plan and the airports' ability to raise revenues and pay for their own improvements. Further, the National Airport System Plan must include reliever airports that clearly fulfill the reliever role, and privately owned, open-for-public-use, airports that serve a national need. It should also provide funds to preserve privately owned airports that are part of the National Airport System Plan.

With FAA's initiative to fund aviation system planning at MPOs serving metropolitan areas with populations of over 1 million, this funding should initially go to MPOs in Block-Grant states so that the MPOs could assist in determining the airport improvement projects to be funded in their metropolitan area.

While there may be some unique and innovative funding methods that might be helpful, user fees would probably suffice. They are simple and commonly accepted by the public and the aviation community. The public and the aviation community become disenchanted with user fees when they are diverted for other purposes.

Adequacy of Existing Funds to Meet the Needs

If one can identify the "real" needs, the answer to this question becomes quite simple. We do not believe that the "real" needs have been identified, and thus the answer to this question is elusive. The Coopers & Lybrand Financial Assessment concludes with a statement that their best judgment of the needs for the 1997-2002 period is in the range of $7 billion to $8 billion per year. This compares to the average of $6 billion per year over the last four years. From this assessment it seems clear that funds are not adequate to meet the needs.

If Congress enacts the Administration's proposal for funding AIP for Fiscal Year 1998, at $1.1 billion, the AIP funding level have been reduced by nearly 50 percent in the last eight years. Even though the system has seen some "new money" in the form of PFCs, the Philadelphia MPO believes that we are losing infrastructure and compromising safety. They recommend that FAA and DOT take a leadership role with Congress and act as advocates for general aviation, reliever, and commercial airports.

Conclusion

It is apparent that considerable effort should be devoted to identifying the Nation's "real" aviation needs, and we propose that this be done through the preparation of a National Airport System Plan. With a realistic plan for needs, answers to the question of whether funds are adequate to meet the needs become apparent. A fiscally restrained prioritization of airport improvements developed from a National Airport System Plan would assure that the most needed improvements are funded. Those projects that are not funded will provide the airport sponsors and other stakeholders with a powerful message for Congress to provide money for airport improvements.

FUNDING SOURCES AND FINANCING MECHANISMS

In response to the presentations on airport funding needs made by representatives of various aviation organizations, a panel of experts on airport funding and financing offered their views on how airport capital requirements might be met. This panel, chaired by David L. Lewis of Hickling Lewis Brod, Inc. was made up of Richard R. Mudge of Apogee Research, Inc.; Michael Lexton of Lehman Brothers; and William Reed of Booz, Allen & Hamilton. Their comments and the ensuing general discussion are summarized below.

Richard R. Mudge
Apogee Research, Inc.

Issues of Needs and Finance

First let me give you three general comments and reactions to the issues of needs and finance. In the short time available I can give only a brief outline of the history and background of what is happening in finance across all airport infrastructure. Afterward I will give my view of the lessons that can be drawn for airport finance.

Let me start with one thing I believe which shows my bias as an economist. I believe there is a link between economics and finance. If you understand who benefits, you will learn a lot about who may pay. I do not like the word, "needs". It is an awkward word at best. It is probably a biological concept. It does not really tell you much about finance. It also tends to have a bit of an engineering orientation that does not really tell what will happen if capital investments are not made. It does not tell what we lose if we do not do this or that. The world we live in is made up of tradeoffs.

The term I like better is, "demand." That has a market orientation. It gives a better sense of why we might want to build these things. It also has some political connotations. It also says a lot about how we might finance it. If there is demand, we can start to look at the market and financial resources. The term "demand" suggests there is not a universal answer to how we are going to finance these investments.

My second general comment, and this certainly relates to finance, is that we are in the midst of what could be called an evolution in how we finance public works. Evolution may be too strong a word, but it is certain we are in the midst of a big change in public financing. If we look backward, we are not going to find the answers to what we should do in the future.

As an economist, I find it more fun looking backward because the data are better. The models now used in public works (transportation, waste water treatment or other forms of infrastructure) are not the same as those used 20 years ago. We need to think about how we can take advantage of new creative solutions that are being explored. This could lead to a revolution in how we do financial planning.

Finally, it is important when we discuss finance to be careful about terminology. I think of finance in two ways, both of which are needed to have a financial plan. One is a source of money. Second, you need a financial mechanism. The two can be easily confused. Some of the presentations here today mixed the two together. They are quite different. For example, the source of funds for the AIP program is the ticket tax. That is the money coming in. The mechanism is to give out grants to airports.

If you look at the bond market, which is obviously a very important part of airport finance, the source of financing could be PFCs, it could be landing fees, it could be a whole series of different user fees. That is the source of revenue. The financial mechanism is a way of reverting money over 20 years into a lump of money to spend now. We need to think about new sources of funds and innovative ways of financing.

We are not going to discover brand new sources of money. The money will come from where it always has—from airport users and other beneficiaries. What we need to do is look at new financial mechanisms, new ways to leverage funds and in some cases, to encourage more contributions from users and beneficiaries.

New Financial Mechanisms

First, there is no single answer. That is fairly obvious. It is important to define problems more precisely. A lot of the needs studies have concentrated on airports by size class. They may look at questions such as safety versus capacity expansion. A more useful way of looking at needs may be to consider the actual thing we are building: airfield versus terminal, parking versus access, etc. That type of breakdown is closer to the market, closer to who is benefiting. This will shed more light on how we might finance it.

The second major change is private finance. More and more of the financing being done looks at benefits from a particular practice. this is important, both for education and for its practicality in generating money for projects.

The third trend is what I call the layered look. This is especially true for large projects. There is no single answer. User fees may come from half a dozen different

places. Federal funds are being combined with private money and distributed by three or four different types of financial mechanisms. It makes life more complicated, but there is no simple way of carrying out complex projects..

Finally there is creativity. People are coming up with truly revolutionary ideas. No one is doing things the way we did 20 years ago. And I think if we are going to generate creativity, there are several things which should not be done. One thing is not to rely too heavily on consultants' reports, as hard as that is for me to say.

Secondly, you will not get results from looking backwards. I think the best course is to encourage creativity at the non-federal level. There are 50 states and numerous public agencies. If there is a way to open up options and opportunities at the individual airport level, the state agencies are the places to search for fresh and innovative ideas, even though some of the ideas may not be viable. Then the problem will be how to work them into a program.

Experience in Other Modes of Transportation and Public Works

Finally, I would like to offer some comments on financing from other modes of transportation and public works. The reason for looking at these examples is not to copy them; every sector is quite different. However, I is important to remember that other modes of transportation or public works are under the same set of pressures and, in some cases, have already been through worse battles than aviation will go through. I agree with what others here have said. The field of airport finance works a lot better than most other parts of transportation infrastructure.

One of the first revolutions was in waste water treatment, where the Federal Government basically got out of the business. The government converted all federal grant programs for waste water treatment facilities into the capitalization programs of state revolving funds. Basically, the government told every single state you are now in charge; we will give you money which you can loan for your own waste water treatment facilities. But we are going out of the business. As a result, our sewer systems are now largely financed by user fees, and in many cases by financing through revenue bonds or by locally funded state institutions. This was a very dramatic change.

In 1991, ISTEA gave great flexibility and freedom to state DOTs in how they could use federal funds and convert grants to loans. This allowed states to do things in different ways with the private sector. Basically, nothing happened in the first two or three years. It was hard to get people to do things differently.

When Jane Garvey came in a Deputy Administrator of the Federal Highway Administration (FHWA), she basically said that the Federal Government may be the problem. Perhaps we have too many restrictions and, unknowingly, are not encouraging innovation. She took advantage of a legal loophole and told her staff that FHWA will not say "no" to any idea that comes out of state DOTs. She had one proviso: "I don't want to go to jail." That brought out a lot of new ideas. Some were not particularly useful. Some were related purely to cash flow. A few, however, did involve ways of encouraging additional funds from beneficiaries—and that is the key.

To go back to what I said earlier about sources of funds and financial mechanisms, the financial mechanisms are interesting to play around with. They get a lot of attention by the investment bankers and people—some to stimulate financial actions and some to obtain additional money from beneficiaries. What happened in the case of the highways is that FHWA and state DOTs have been able to go out and generate more money from beneficiaries. Private firms will donate land for certain facilities. FHWA has agreed to count this as a match for federal funds.

There are a number of places where the business community, local townships, or a particular firm has said it would like to have an interchange, a stretch of highway, or some other facility built, and they have been willing to put up money to help the project along. These are direct user fees. It requires an openness in a different way of accounting.

Another innovation is something called state infrastructure banks, which like anything with a grand and glorious name may be over-hyped. On the other hand, they have proved to be institutions that can make very attractive loans. There is high risk in the earlier stages of any project. What an infrastructure bank can do is make a loan that is junior to the bonds that are sold by larger lending institutions.

State infrastructure banks do not require borrowers to pay money back until five years after the project is opened. Thus, in the first year where there is high risk, all the money goes to pay off the revenue bonds. Also, borrowers do not have to use reserve bonds like PFCs. Every single dollar the borrower has can be leveraged to actually build the project.

There are also ways of reducing the short-term costs on the traveling public. They are not free. The public sector is paying part of the subsidy. Concepts like this could be useful for certain parts of airports; access roads and parking facilities fit this nicely.

It is important to look at what has worked and what has not and to identify those that may work at airports.

When talking to people in state DOTs, it is apparent they are thinking about projects in a very, very different way. They are thinking about who benefits, how to get money from those people, and how to leverage funds and get projects built sooner.

Airports are way ahead of the rest of the transportation sector, especially at the larger airports that have long turned to the bond market for funds. They already have that orientation, they have experience, and they have an established access to the bond market.

Michael Lexton
Lehman Brothers

I agree with Mr. Mudge about using the word, "needs". It sounds to me like something my son says when he wants a cookie. I am a big supporter of markets and market demand. Demand is the reason we are here. It is the reason airports exist. It is the reason airlines exist. All are seeking to meet a particular demand–the demand of passengers and shippers of goods wanting to get from place to place. What the aviation industry is trying to do is find the most efficient way of meeting those demands.

Mr. Mudge also mentioned examples of lessons learned from highways and other types of infrastructure projects with respect to innovative finance. As a caveat, we should note that airports are fundamentally different from other forms of infrastructure. What drives an airport is the demand for people to get to that particular city or for shippers of goods to get goods to that particular city. Because that demand is fairly high, traffic grows over time. As a result, airports expand and airlines order more aircraft. All of this means that airports, on their own, are fundamentally good credits. People are comfortable with the ability of an airport to generate revenues, both from the airlines and–more recently–from nonairline revenues such as concession revenues and retail sales. There really is not a lack of funding. We have to be careful about that point. The key issue is probably not needs or demand. It is not necessarily where the funds are going to come from. It is ultimately going to be the allocation of who pays. That is really the issue. The money is there; it is just a matter of who is going to pay for it and how big is their share.

Several speakers today have mentioned the word, partnership. I personally am a big believer in partnership. The Federal Government, the airlines, local communities, and fare-paying customers all need to be in a partnership in order to ensure that demand is met and that required new facilities can be built. It is a matter of allocating various responsibilities within the partnership. The solution is not simply to raise airline landing fees or passenger ticket taxes. There has to be a strong working partnership of airlines, airports, and the Federal Government.

In terms of innovative financing methods and the ability of the Federal Government to participate in them, there are probably mechanisms to accomplish that. But for the most part, innovative financing is a term that is used for allocation of funding more than anything else.

Privatization is an answer that many people think will solve the problem. We are currently working on a few airport privatizations, or what one might call quasi-privatizations. Public-private partnership is actually my preferred term for these types of projects because the public asset is always an important asset in the background of any part of these privatizations. But it's clear that airports cannot take the projects that they think aren't going to work and shunt them off to the private sector. This has been tried in public transit for about a dozen years, and I do not think we have seen a single privatization project work in the transit field.

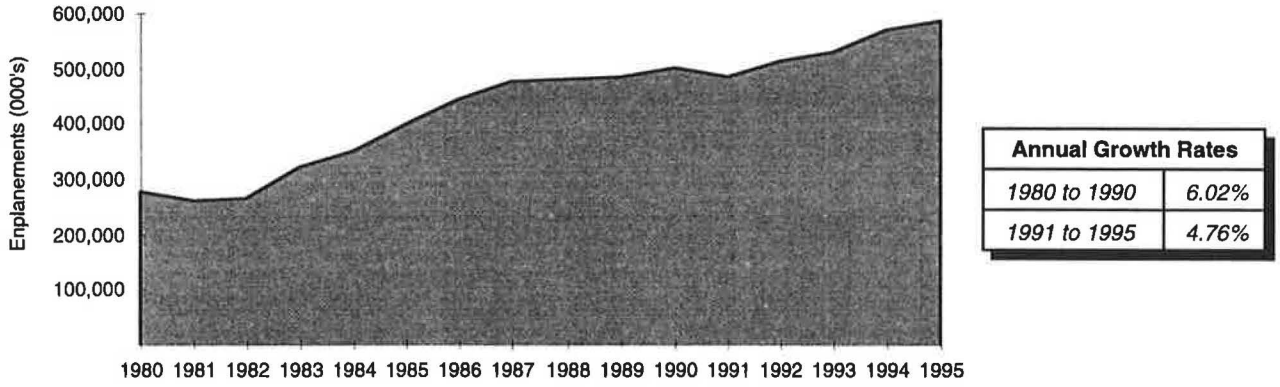
The concept of partnership ties into the whole question of whose airport is it anyway? And the local community will stake claim to the airport because it provides service to the people who live there. The Federal Government will lay claim to the airport because they have to ensure that safety and other requirements are met. The airlines will lay claim to the airport because their feeling is that they are the ones really paying for the use of the facility.

It's an age-old debate. We have seen airport funding, airport bonds, and the financing mechanisms for those bonds evolve over time since the mid-1950s when bonds were first issued on behalf of airports. At that time airport sponsors felt that the airlines were absolutely essential. And as a result, the airlines gained a substantial amount of control through their use and lease agreements. Over time, depending on the airport, the struggle for control has gone back and forth between air carriers and airport sponsors. In my experience, projects where there has been a high degree of cooperation between airlines and airports, have been the most successful. Detroit is an example that provides a case study.

We in the financial community believe that plenty of money is available for airport projects. There are a lot of people who want to invest in airports. This is not just the purchase of airport bonds. We are now seeing people taking ownership shares and equity in airport projects. There may not be so much here in the United States as overseas. But even here in the United States this seems to be where airport funding is heading.

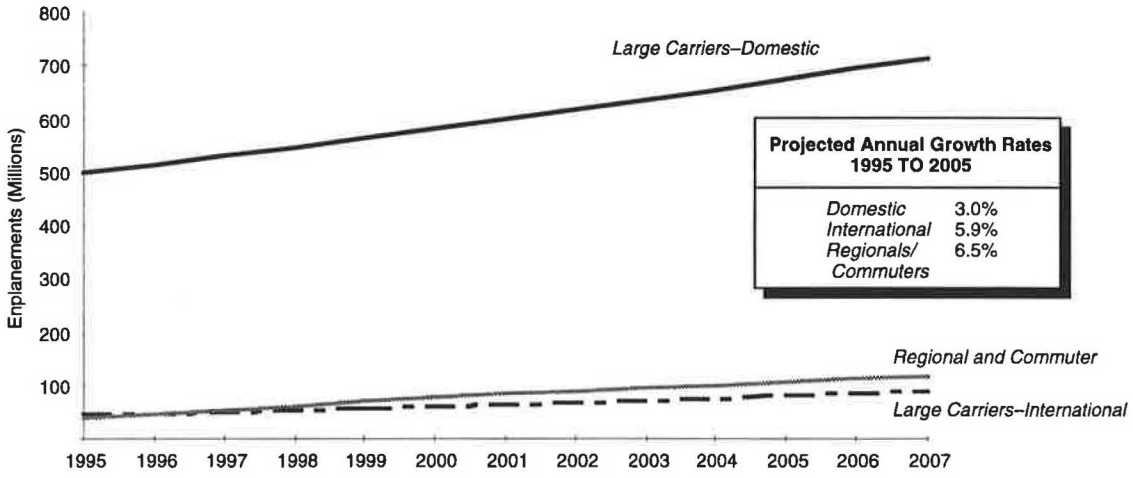
William Reed
Booz, Allen and Hamilton

There are four key messages I would like to get out on the table. The first is that there are different answers for different types of airports. The earlier comments by David Plavin of ACI and Spencer Dickerson of AAAE focused on this point. It is obvious and very important.



Source: Federal Aviation Administration

FIGURE 1 Total U.S. enplanements, 1980-1995.



Source: Federal Aviation Administration

FIGURE 2 U.S. air carrier passenger enplanements.

Second, increasing the PFC to a $5 level just does not do it. We should not hang our hat on solving the problem with a $5 PFC.

Third, airports have access to very good financing. We should not lose sight of that. Bonds are an excellent mechanism in the tax-exempt marketplace.

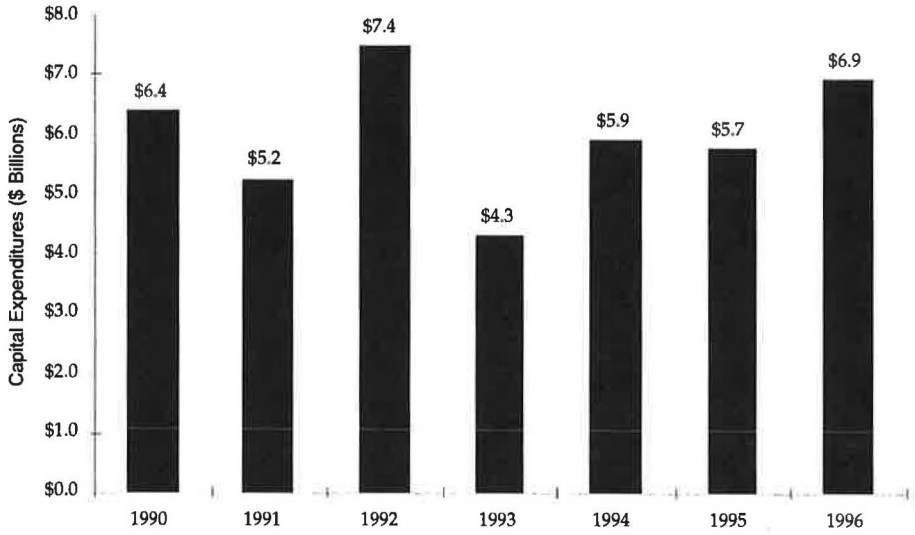
My final thought is that the user pays. This is obvious. We need to focus on how to get the user to pay and who the user is. This is really the crux of the whole funding dilemma.

Background

Aviation in the United States has grown dramatically over the past two decades. Passenger enplanements, now nearing 600 million per year, are double the 1980 level. (Figure 1) This growth has been fueled by deregulation, and the hub-and-spoke system, and a brisk economy.

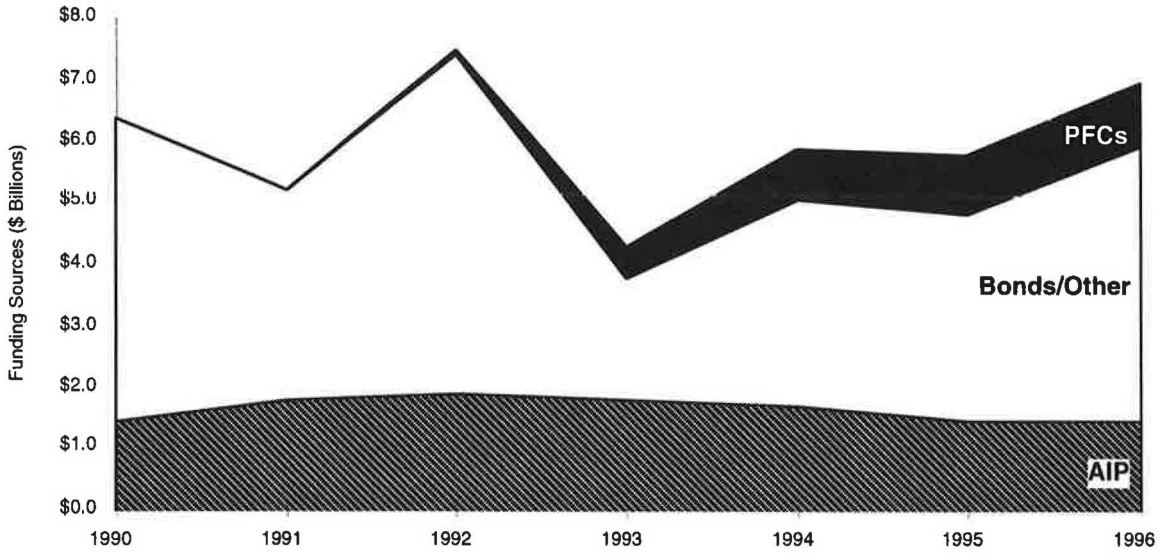
FAA forecasts for 1995-2005 indicate domestic airline passenger growth at about 3 percent. International traffic is expected to increase at about 5.9 percent. Regional carriers will grow at about 6.5 percent. Basically, the expectation is that we are going to have continued rise in demand and a need for more airport capacity. (Figure 2)

The growth of enplanements has spurred capital investment in airport infrastructure—to meet existing demand, as well as planning for future needs—at an average rate of $6 billion per year. (Figure 3) This is built up from looking at FAA grants and bonds sold. By bonds sold, I mean the total project costs (including financing costs and architectural and engineering fees). It is the all-inclusive cost. It also includes airport funds and (in the latter years) PFCs.



Source: ACI 1996 Capital Needs Survey, FAA Financial Assessment

FIGURE 3 Airport development capital expenditures (in billions of dollars).



Source: ACI 1996 Capital Needs Survey, FAA Financial Assessment
Note: PFCs on a pay-as-you-go basis only.

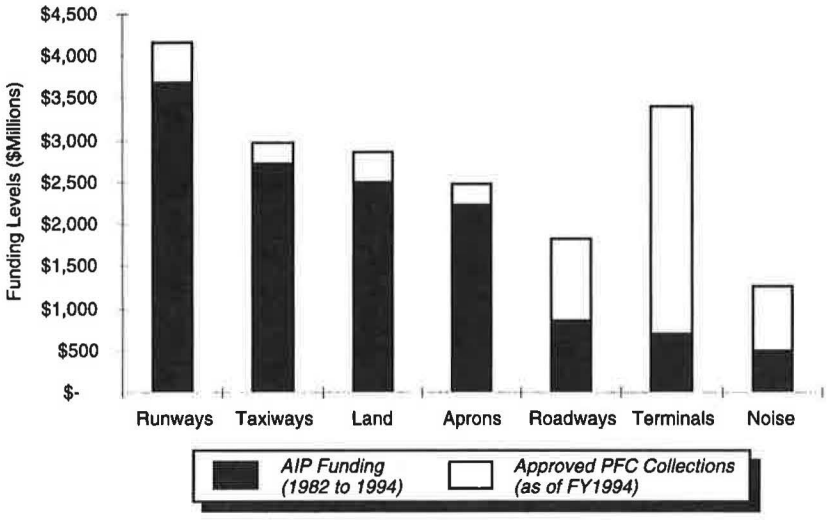
FIGURE 4 Airport development funding sources (1990 to 1996).

It represents the real total cost of what it takes to build the infrastructure for airports.

Figure 4 is a break-out by year of funding sources. There are no surprises here. AIP has been at a relatively steady amount over the historical period. PFCs are coming in. These are only pay-as-you-go PFCs. Bonds and other financing sources have made up the difference between those two relatively static amounts.

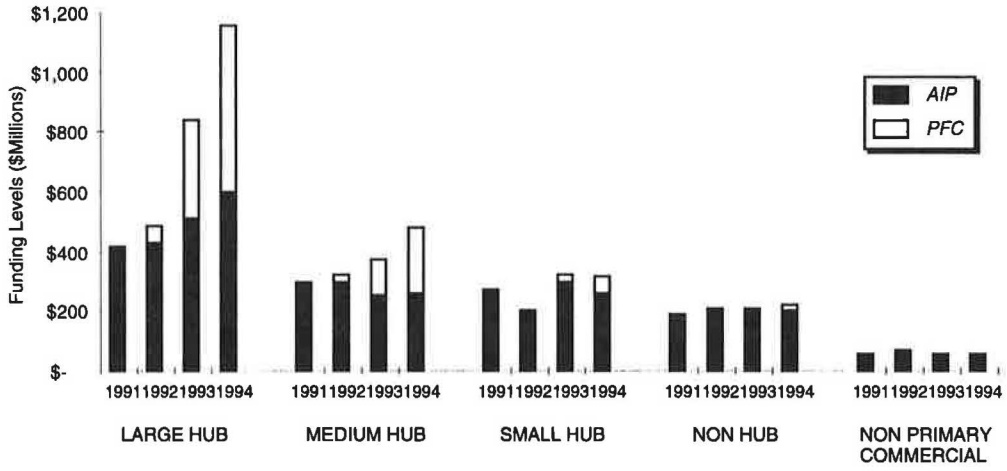
Figure 5 shows how AIP and PFC funds have been used. The distribution is not surprising. AIP has focused on airfield projects because this is the emphasis of the FAA program approach to building system projects capacity within the system. And terminals and roadways and noise are funded from PFCs.

Airports have used PFCs to fund projects that enhance competition, especially where expansion of terminal facilities is needed. Airlines do not have a natural tendency to want to build the terminal facilities, and PFCs are an excellent way to pay for such projects and enhance competition at airports.



Source: GAO Report RCED95-225FS, July 1995

FIGURE 5 AIP and PFC funding by project type.



Source: GAO Report RCED95-225FS, July 1995

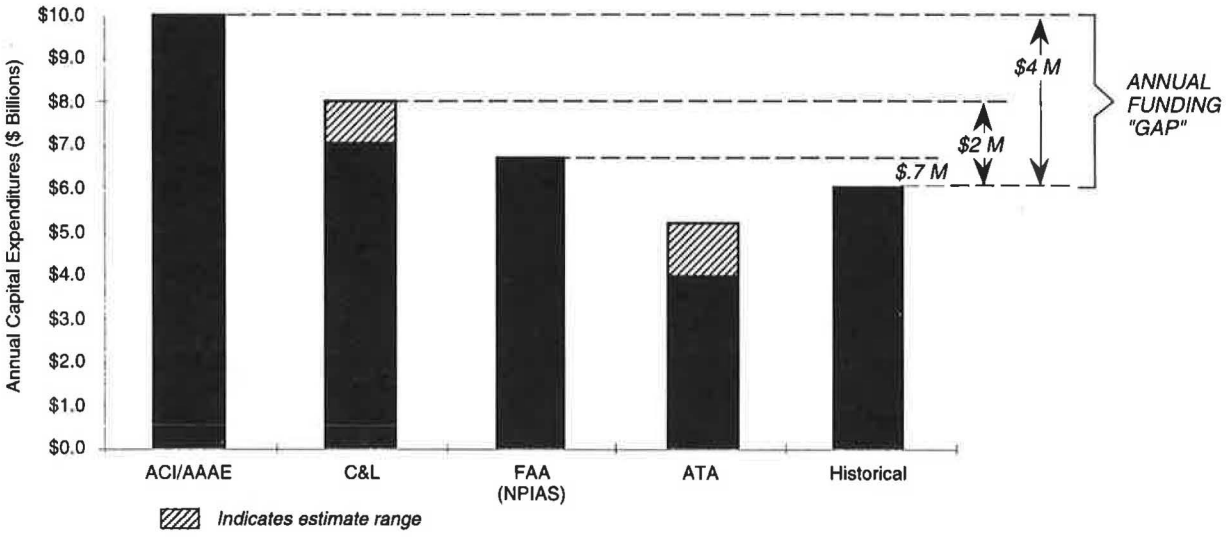
FIGURE 6 AIP and PFC funding by type of airport (1991 to 1995).

Breakouts of AIP and PFC funding by type of airport are presented in Figure 6. This gets back to the point I made at the outset. The search for a solution has to focus on what funding sources are available by type of airport. This cannot be ignored. Because of passenger volume, large hubs are increasingly relying on PFCs to fund airport development needs. AIP becomes much more important in funding projects at smaller airports. These airports play a valuable role in supporting the overall operation of the system. Small airports cannot survive without federal assistance.

Future Capital Needs

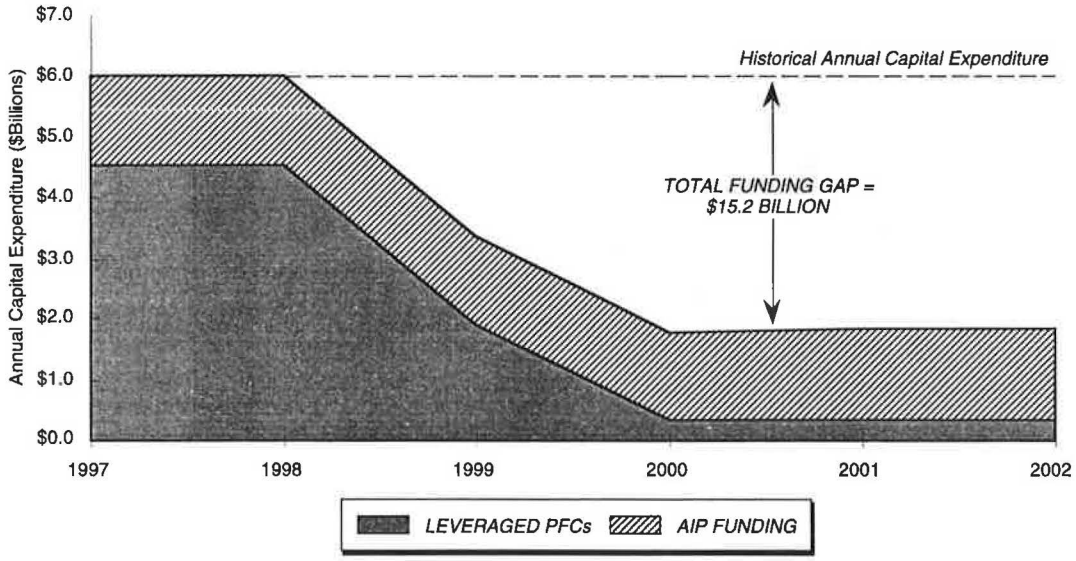
The conventional method of estimating future airport capital needs is a bottom-up approach. Perhaps another way to look at the issue is to estimate what level of annual capital expenditures may be supported by existing funding sources.

Figure 7 compares the four estimates we have before us today: ACI/AAAE, Coopers & Lybrand, FAA, and ATA. On the right-hand side of the chart is a comparison of the historical funding level with these four estimates. The annual funding gaps range from $0.7 billion to $4 billion.



Sources: FAA Financial Assessment, GAO RCED-97-99, ACI 1996 Capital Needs Survey

FIGURE 7 The funding gap: future estimates vs. historical capital expenditures.

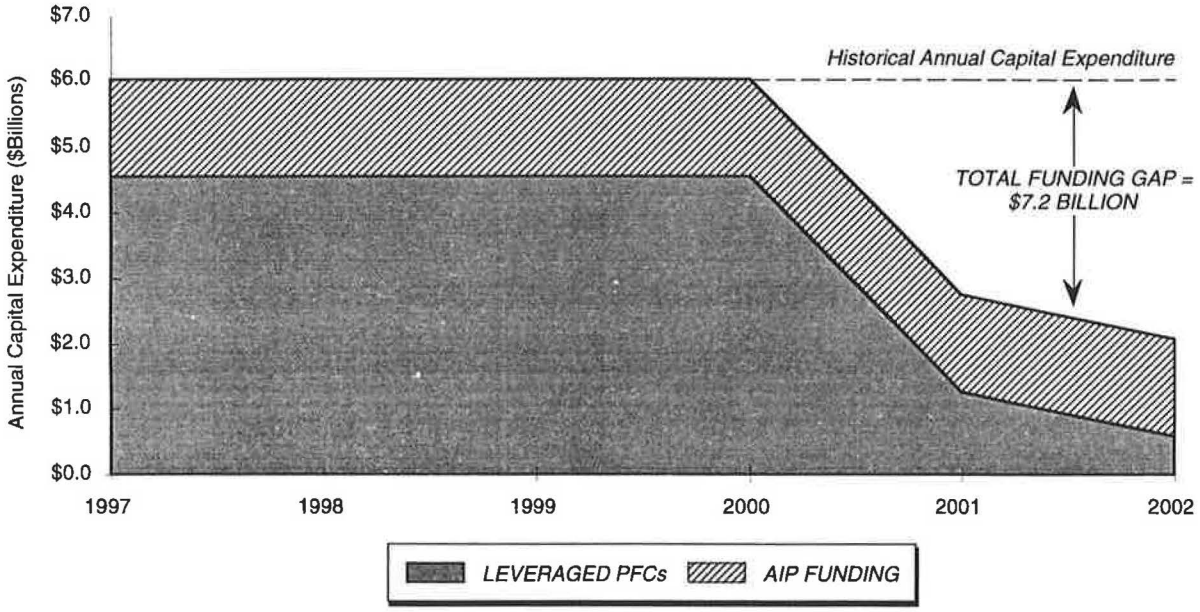


Assumes no coverage requirement on leveraged PFCs.
Source: BA&H analysis

FIGURE 8 Estimated annual capital expenditures vs. funding sources.

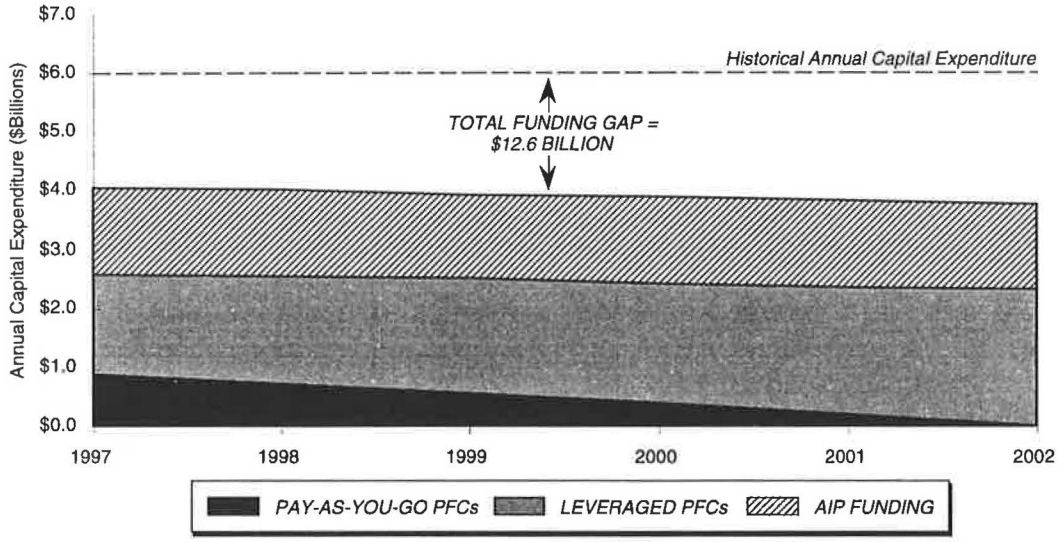
Airport Funding Approaches

Perhaps another way to look at the funding gap issue is to estimate what level of annual capital expenditures may be supported by existing funding sources. To do this, we have put together three scenarios. In essence we held AIP funding constant at the current level of $1.46 billion and examined the effect of increasing passenger facility charges from $3 to $5—comparing leveraging, pay as you go, and a combination of the two. We also examined the historical approach of filling the funding gap with bonds and estimated the effect of annual debt service costs on a global enplaned passenger basis to obtain a bench mark.



Assumes no coverage requirement on leveraged PFCs.
Source: BA&H analysis

FIGURE 9 Estimated annual capital expenditures vs. funding sources.

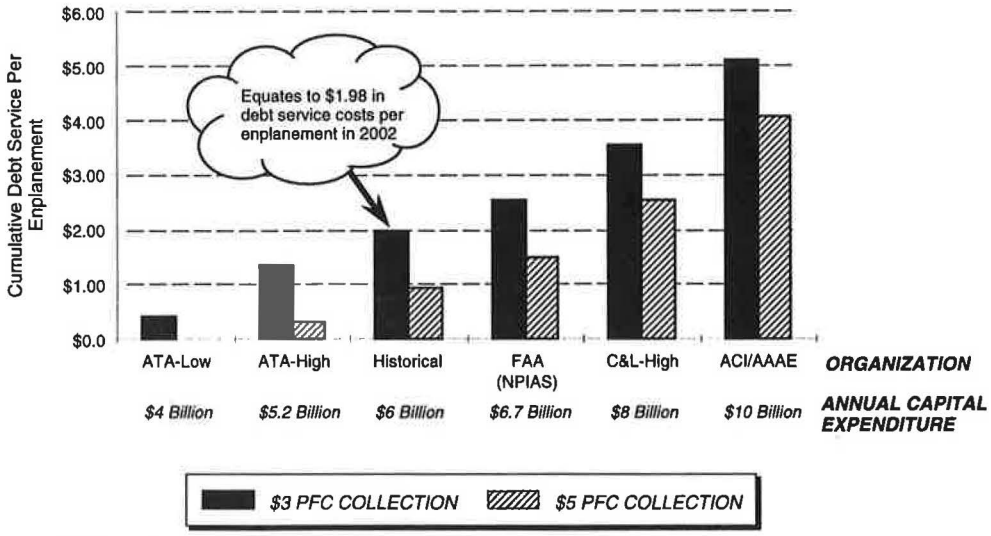


Assumes no coverage requirement on leveraged PFCs.
Source: BA&H analysis

FIGURE 10 Estimated annual captial expenditures vs. funding sources.

Figure 8 is the first of the scenarios, which involves leveraging annual PFC collections from 1997 to 2002. Basically it shows that by 1998 everything has been leveraged out. During 1999 PFC revenues taper off and after 2000 the only PFC revenues would come from incremental growth in air travel. In effect, this scenario mortgages the future and creates a net funding gap of $15.2 billion for the six-year period. PFC revenues in 1997-1998 provide a shot in the arm, but after that new sources of funding must be found.

Note that this scenario assumes no coverage requirement—a very unusual approach. Typically, capital markets have some requirement for coverage (about one and a half times the debt service) backed by the PFC revenue stream.



Note: Assumes all PFCs are leveraged.
Source: BA&H Analysis

FIGURE 11 Estimated cumulative debt service charges per enplanement in 2002.

TABLE 1 SUMMARY OF CAPITAL ESTIMATES AND FUNDING SOURCES
(In billions of dollars)

			Leveraged PFCs (1997 to 2002)		Funding Gap (Funded by Bonds)		Debt Service Cost Per Enplanement[1]	
Organization/ Association	Total Estimated Capital Needs (1997 to 2002)	Total Estimated AIP Funds (1997 to 2002)	$3 PFC Collection Amount	$5 PFC Collection Amount	$3 PFC Collection Amount	$5 PFC Collection Amount	$3 PFC Collection Amount	$5 PFC Collection Amount
ACI/AAAE	**$60.0**	**$8.8**	**$12.0**	**$20.0**	**$39.2**	**$31.2**	**$5.09**	**$4.05**
C&L-High	**48.0**	**8.8**	**12.0**	**20.0**	**27.2**	**19.2**	**3.53**	**2.52**
FAA (NPIAS)	**40.2**	**8.8**	**12.0**	**20.0**	**19.4**	**11.4**	**2.52**	**1.48**
Historical	**36.0**	**8.8**	**12.0**	**20.0**	**15.2**	**7.2**	**1.98**	**0.94**
ATA-High	**31.2**	**8.8**	**12.0**	**20.0**	**10.4**	**2.4**	**1.35**	**0.32**
ATA-Low	**24.0**	**8.8**	**12.0**	**15.2**	**3.2**	**-**	**0.42**	**-**

[1]Cumulative debt service costs on a cost per enplaned passenger basis in 2002.
AIP Funds assumed constant per year ($1.46 billion).
Each Organization/Association's capital estimates assumed to be for six year period (1997 to 2002).
All figures in billions of dollars except cost per enplanement figures.

Source: BA&H Analysis

The second scenario assumes increasing PFCs to $5 and leveraging PFC collections for the years 1997 to 2002. (Figure 9) This would provide steady PFC funding at the level of $4.5 billion per year through to 2000. After then PFC funds would fall off sharply, with the only revenue coming from increased traffic growth. In comparison with the first scenario, the second scenario provides two more years of funding at the level of $4.5 billion, but there would still be the downstream problem of severely inadequate funding beyond 2002. The total funding gap for 2000 plus 2002 would be $7.2 billion.

The third scenario combines pay-as-you-go PFC support with leveraged PFC. (Figure 10) this approach takes advantage of pay-as-you-go at the outset and then phases in

more and more leveraged PFCs until 2002, when all PFC revenues are leveraged. After 2002 there would be no further slack in the system, and the total funding gap would be $12.6 billion.

This leads to the conclusion that an increase in PFCs from $3 to $5 is not going to solve the problem. All three of the scenarios analyzed by us indicate limited capability beyond 2002 to finance airport development.

The only tested and reliable alternative is to turn to the capital markets and raise funds through the sale of airport revenue bonds, municipal bonds, general obligation bonds, or other such instruments. Airports have access to one of the lowest-cost forms of capital in today's financial markets—tax-exempt bonds.

Figure 11 compares the historical level of cumulative debt service per enplanement to what would be required to fill the funding gaps estimated in recent studies by ATA, ACI/AAAE, FAA, and Coopers and Lybrand.

Table 1 is a summary of capital needs estimates, funding sources, and the collection amounts per enplanement necessary to fill funding gaps.

David L. Lewis
Hickling Lewis Brod, Inc.

I would like to offer a perspective on what I have heard today, in light of opportunities I have had over the past two years to look fairly broadly at the way airport finance works in the United States.

Those opportunities have arisen from diverse sources. One was between the Los Angeles International Airport and the airlines over the proposed sharp increase in landing fees. FAA, at that time, took a good look at the way things work and FAA's role in the finance process.

And more recently, I have been working very closely with the Canadian government. David Plavin's presentation earlier today alluded to the Canadian experience in creating a commercialized aviation system, both for airports and air traffic control. These examples provide insights into how airport and aviation system financing works in general.

What I find is that the situation existing today is a rather healthy base upon which we can devise the kind of innovations that we are looking for at this meeting.

What I see is a selfregulating system in which the FAA has found it necessary to enter as a traditional third party utility regulator to equilibrate the market power of airports and airlines. This system is a diamond with four corners–airports at one, airlines at another, credit markets at the third. And the Federal Government to complete the picture.

Airports and airlines are in partnership when it comes to capital decisions. This partnership is not entirely equal, depending on the type of agreement (residual-cost or compensatory) between airports and the airlines that provide services. At residual-cost airports airlines tend to have the upper hand in control of capital investment. At airports with compensatory agreements and where there are healthy partnerships at work, the balance is more nearly equal.

Credit markets play an important role. They do not just lend money. They discipline both the airports (the borrower) and the airlines to ensure that borrowed funds can be repaid. That discipline is very powerful in ensuring that unworthy projects or projects that are ahead of their time are not financed unduly.

The Federal Government seems to play a role that one might describe as internalizing the benefits that neither the credit markets nor the airlines (nor perhaps the airports) recognize in the form of long-term requirements that others are less inclined to take into account.

We do have a fairly health partnership and a fairly healthy financing mechanism at work today. The Canadians have gone a step further by creating NAV Canada, a commercialized air traffic control system, rather than giving airlines veto power over proposed new capital investments. Control has been put squarely in the hands of the provider. That is not to say that the airline side of the equation is left without a control mechanism. Even though the investment decision making process is largely in the hands of the aviation provider, it is nevertheless designed to accommodate both benefits to itself and its airlines customers.

Airlines have higher discount rates than aviation providers. This is not to say that one is right, and one is wrong (or that one is myopic, and one is not). Airlines, because of the business they are in, take a shorter view than airports and aviation infrastructure providers.

What we see in the case of NAV Canada is an attempt to combine the two types of decision making. It is not unlike a consumer products firm suddenly realizing that it has to make decisions not only on behalf of its shareholders, but on behalf of its customers as well. This is a combination in which control of infrastructure investment is shifting to the infrastructure provider. But at the same time, recognition of the business priorities of the customer is being folded into a decision process.

In the innovative financing study that we conducted on behalf of FAA for presentation to Congress, we found evidence that the market is at work, not just for larger primary airports, but for the small airport sector as well–even in the very smallest. We found small airports responding to changes in the costs of capital. We found them using innovative techniques. There is an extraordinary degree of innovation in the way airports of all sizes take their needs to the market. There are partnerships, double- and triple-barrel forms of securitization, creative use of letters of credit, bond insurance, and so on.

There is a lot of experience with creative financing and innovation. It is being created by, within, and for the airport world. This is not to say that there is not room for genuine improvement and that we do not have gaps. We do have a baseline from which to begin. Partnerships and institutional arrangements for control can be devised or refined and responsibilities can be reassigned in light of circumstances.

I would like to offer my perspective on a matter that has been raised by several other speakers: the question of who pays. There is no single answer. Who pays and how much depend on the size and type of airport.

In the case of small airports, the answer is fairly obvious. The Federal Government provides most of the funds for capital improvements, with small matching contributions from state aviation agencies and local governments. Without this support only a few general aviation facilities will be able to survive.

On the other hand, we have heard from some speakers today that, by hook or by crook, small airports are gaining access to the debt markets. How does one reconcile these opposing views? One way of looking at it might be to recognize that, while some small airports have access to money markets, they are not by a long shot, able to cover all of their projected needs or demands or cravings or what other euphemism one might choose.

How can we latch onto this ability–however small–of small airports to borrow? One way might be to relax the fixed federal share and to say that the federal share is up to a certain amount. When one does that, I suspect we might see some smaller airports coming forward and saying to FAA, "If you accelerate the rate at which AIP funds are provided, we will come up with a larger match as a quid pro quo". To the extent that these airports borrow and show willingness to take some risk, FAA would be getting a signal that maybe the project under consideration has more benefits relative to costs than another project where the desire or the willingness to put some additional cash on the table (or take some other form of risk) is not apparent.

The relationship between the Federal Government and smaller airports needs to change. We can do so in a productive way that captures the ability of smaller airports to borrow or to raise more, one way or another, than they have traditionally been able to. This could prove to be a very effective way to sort out needs from desires.

In the case of large airports, who pays is not the right question. We know who pays. David Plavin got it right when he said the question is who decides who pays. Therein lies one of the major policy dilemmas as we go forward. Right now, the decision of who pays is in a very carefully worked-out model with a rather delicate balance between airlines and airports on the question of what gets built and when.

We have also heard today the seemingly contradictory remark that there is a lot of money available. If so, why is the airport and airline partnership not creating a demand for more of that money? The answer is that the self-regulating process creates a level of investment that is driven by capacity requirements, not available funds.

By convention, we will see airports making more rapid, larger, and more immediate decisions to spend more money that is available.

The question for the Federal Government is whether greater funding would disturb the self-regulating process, the mechanisms by which the airline industry is now, in conjunction with the credit markets, able to discipline airports so that they do not go into wildly speculative ventures? The answer is, only if some shifts in the power structure of the existing self-regulating model were to occur.

But even then, some shift in control, which would liberate the demand for capital, could work without forcing the Federal Government to take on more of a utility-style regulatory role because of the monopoly power problem it could theoretically create.

Some shift in decision-making power is possible. I have been working intimately within the Canadian framework for two or three years. While I am the first to recognize the fundamental importance of the self-regulating balance that exists now, I think there is some potential to shift that balance. One result of this could be to encourage large-and medium-sized airports in coming to the financial market quickly and more aggressively.

INDIVIDUAL COMMENTS

To obtain as wide a range of opinion as possible and to afford all participants in the workshop an opportunity to comment on problems, issues, and special concerns, time was set aside on the agenda for brief statements by all who wished to be heard. Capsule versions of their remarks are presented below.

The affiliations of the speakers are provided to help readers identify the speakers' points of view and to shed light on the nature of their concerns. Their remarks should be considered personal views and not necessarily those of the organizations to which they belong.

Roger P. Moog
Delaware Valley Regional Planning Commission

In a metropolitan urbanized area such as ours, the interests of the Delaware Valley Regional Planning Commission (DVRPC) have been most accurately reflected by the AAA position presented by Spencer Dicker son earlier this morning. We have 24 airports in the DVRPC system, a four-state system, of which 21 are noncommercial airports, two are small commercial airports, and one a large air carrier airport (Philadelphia International).

To my way of thinking, enplanements are not the whole game in aviation. Operations are important as well. In our region, 70 percent of the operations occur at the noncommercial airports. Eighty percent of the aircraft in the region are based at noncommercial airports. Half of those noncommercial airports are privately owned.

Over half of the airports in the DVRPC system are vulnerable to closure sometime in the near future. If there is ever another real estate boom in the suburbs, we are going to lose a large part of our regional aviation system.

There is a direct linkage between general aviation reliever airports and the well-being of the commercial system. What should be emphasized is the need for more creative planning and financing, regardless of the AIP funding level that may be set for future years.

Most people in the aviation community believe that AIP funding should be higher. More important, however, is the need to be able to spend AIP funds in a more localized way to deal with the problems particular to a given region.

If the region relies heavily on privately owned airports, it is really important to get funding for these airports to keep them in the system. In the past, not all privately owned airports were eligible for federal AIP money. This can be addressed through more relaxed interpretation of block-grant rules and guidelines as to how AIP funds are to be spent.

There is concern in our region about the PFC funds now flowing into the commercial airports. We do not know what becomes of the entitlement monies that have been freed up by PFC revenues. We understood that the entitlement were supposed to go to the general aviation reliever airports. This does not appear to be the case.

The discretionary money available for general aviation airports in the 1996 AIP program was almost nothing. This is a very big problem, and we would like a description of the PFC and entitlement distributions.

Access to the discretionary fund, no matter how much it may be, is an important issue. we would like to see some of the earmarked discretionary funding go to general aviation and reliever airports. We feel that block grants are the way to go because they give communities the opportunity to tailor the solutions to their own needs.

While it is virtually impossible to structure the AIP program to satisfy everybody and to address all needs in an equal and fair manner, it is important at this time to correct imbalances and improve the process by which funds are allocated.

Bruce F. Mundie
Maryland Aviation Administration

In going through my budget for assistance grants to airports in the State of Maryland in fiscal year 1997, I find I have exceeded my budget by 400 percent because of a lack of FAA AIP funds. Overall, the airport improvement needs in Maryland far exceed our ability to pay for them.

A good example is the airport in Montgomery County, which received an emergency AIP grant from FAA to carry out a runway paving project. To come up with The 5-percent share required of the airport in the AIP funding formula, the airport mortgaged 15 years of future user fees. This means that the airport will not have funding for the next 15 years for any additional AIP projects. This is how serious the funding crisis has become.

David Plavin mentioned that the passenger pays. I would like to remind you that there are other sources of revenue. There are aircraft fuel taxes, freight way bills, and aircraft parts and tire taxes that all go into the Airport and Airways Trust Fund.

Another matter that concerns me are proposals to use Airport and Airways Trust Fund revenues for development of such things as historical sites and aviation museums. I consider these projects interesting, but they are not part of the transportation infrastructure. In many cases they are something spelled p-o-r-k. And I do not like to see proposals for such projects when it is going to cost the State of Maryland 400 percent of its budget for its share of assistance to maintain the airports we have.

Mr. Dickerson cited the example of how transfer of 200 GA aircraft from small fields to St. Louis Lambert Airport would exacerbate capacity problems. I invite you to go up to Montgomery County Airpark where there are 314 aircraft based, with only a single runway operation and no tower. This is an airport going into debt for 15 years to try to get its runway reconstructed.

At another Maryland Airport it will cost in excess of $500,000 to upgrade the infrastructure from general aviation to regional aviation. By the way, it would probably cost somewhere close to $1.4 million to upgrade the infrastructure from a general aviation airport to a regional airline and airlift airport.

St. Mary's County is about ready to get service from a regional air carrier. The State of Maryland will have to build the infrastructure, which is going to cost somewhere in excess of $1 million.

I agree with earlier speakers that there is a need for FAA to standardize the planning process and to integrate the state plans into a coherent national airport system plan, either a modified NPIAS or some other statement of airport system needs.

Privatization in the airport system does not work. I am very familiar with it because 62 percent of the public-use airports in the State of Maryland are privately owned. Only two of those are eligible for AIP funding, and we have to assist those airports 50/50 with those projects that would otherwise be eligible for AIP funding.

An increasing share of airport improvement costs is for meeting environmental requirements. On one of the projects underway right now in the State of Maryland, environmental matters are approaching 20 percent of the total project cost.

My basic recommendation is that we go back to the basics and review the original intent of the AIP program. Go back to what AIP was created for. This is what we should be funding. Do not hold Trust Fund revenues captive, and recognize that airports which provide access but do not raise large amounts of revenue are also part of the airport system.

Steven M. Quilty
Bowling Green State University

I understand our purpose for being here is to identify the needs of the airport system and try to reconcile some of those needs with adequate funding levels.

We have heard about capacity demands and funding needs from the various organizations around the table, as well as from the financial experts. One of the reasons for the discrepancy between their respective positions is that we all have different perceptions of what system needs are due to the representation of the constituencies. I would suggest that, just as Mr. Lexton spoke about his son who wants a cookie but does not necessarily need one, airports and the various organizations here all have different wants but they may be more than what they need.

A fundamental question is what service level do we want to provide? Determining that will help to identify the funding needs of the system. When I speak of service level, I refer to different levels of safety, security, and regulatory compliance. For instance, FAA has set acceptable delay at four minutes from an air traffic control standpoint. From that flow decisions as to what technology and what financial resources it will take to achieve delay of no more than four minutes. The problem is the demand may be too high for an airport to ever reach less than 4 minutes, but yet the airport is being served and in some cases overly served. If we were to establish different service levels for the various categories of airports and arrive at consensus on what the levels should be, we could then address and outline the financial needs for a particular type of airport and eventually the whole system. That service level is what the federal budget should be targeting. If needs and wants exist beyond that, then outside, private sources of funding should be sought.

If you think about things like management by objective (MBO) and zero-base budgeting, you are trying to establish performance and service levels that can be used for making decisions about balancing spending with a level of service. I am not trying to get into a debate about whether or not MBO and zero-base budgeting have worked in the financial area, but the models have application here. The notion of establishing service levels could very well work for what we are trying to accomplish here because it provides some measure of quantifiable needs. For example, there are different design standards for the different levels of airports. Having acceptable service levels for the different categories of airports allows you to quantify whether or not you meet those goals, standards, or performance levels. That ties in with Mr. Speak's notion about when the national airport system plan is used. By establishing base service levels, then you can address safety and security matters. For anything beyond that, different funding opportunities such as the bond or private option can and should be used.

Paula Bline
Airport Consultants Council

The Airport Consultant's Council (ACC), is an association representing consultants who help in airport planning and development. ACC members include engineers, planners, environmentalists, financial experts, as well as attorneys.

Mr. Chambers and others at GAO have talked to ACC staff as well as a number of ACC members about airport development needs and cost estimates to get clarification as to their origins. The consultant community has played an

important role in developing the figures used by ACI, AAAE, ATA and the FAA NPIAS. ACC has been a valuable resource for clarifying what these figures mean.

With regard to Mr. Quilty's comment about level of service, ACC convened a group of 15 experts in terminal planning and design last summer. The purpose of this meeting was to develop guidelines for planning terminal buildings. The most recent FAA documents on this subject were published in 1972.

The purpose of our meeting today is to exchange information. If I had not been involved in airport planning for 15 years, I would have no idea that there are so many paved airfields with four runways built during World War II. Hundreds of them are part of the 3,300 airports presently included in NPIAS. How many of these will be needed in the future and the assessment of cost versus benefit are important issues.

On another subject, I have notes from a January 1995 FAA meeting regarding financial innovations. Mr. Lexton's, suggestions were part of the written submittal. Have any of these specific mechanisms such as credit assistance, tax-incentive features, and direct loans been used? Is the bank loan option advanced by Mr. Plavin of ACI and Mr. Dickerson of AAAE, still being discussed?

Finally, I would like to offer a consultant's perspective on the $10 billion needs figure. I believe that the true need exceeds even this figure due to unfunded security and safety mandates. Funding estimates for security mandates alone are $144 million, and that is only a start.

I am grateful that we have not spent a lot of time today talking about specific needs figures. The estimates presented in the various reports discussed here today provide an adequate basis for proceeding with funding issues.

John W. Fischer
Congressional Research Service
Library of Congress

I have three brief questions:

First, I have heard six or more speakers say that the big issue is going to be who pays. No one has suggested who that might be. Everyone has danced around the issue, but no one has offered an answer.

Second, what are we talking about? Is it demand for airport capacity, the needs of airport users and operators, or simply wants? There should be some clarification of terms.

Third, what do we mean by the term "national airport system"? Is it all the public service airports in the country, only the airports in the NPIAS, or a smaller subset of airports that provide commercial air service? What are, in fact, the airports that make up a system that should be the focus of federal interest and support?

David F. Rubin
ICF Kaiser Engineers, Inc.

To answer Mr. Fischer, they are neither needs nor demands. They are desires. The demands are being met today, otherwise users would be demanding more. And nobody is. The desire of airport users and operators is for expansion and improvement.

The questions of who pays and who benefits are related. Mostly the benefits are local. The clearest examples are tourist communities that are willing to invest in an airport to attract tourists, especially in the Caribbean and other vacation centers. Communities are willing to invest large sums of money so that the big planes can land and big numbers of tourists can get off.

Airports are an economic entity, and by and large they are successful. Airlines and airport concessionaires are willing to invest private money in them, local governments are willing to invest local money in them, underwriters are willing to sell bonds, and investors are willing to buy them if they are backed by airport revenues.

Airports also provide substantial national benefits. A study done at the time FAA was justifying the $5 billion investment in the Denver International Airport (DIA) showed the benefits to the national airport system of eliminating delays in Denver and how it spread across the entire country.

If you look at what happened since DIA opened, FAA was right. The delays have been eliminated in Denver, and the Nation has benefited.

Delay reduction is not the entire benefit of DIA; the City of Denver also benefits from being able to maintain its status as a hub and, hopefully, provide better international service by means of the 16,000-foot runway.

Small commercial service airports, relievers, and GA facilities have been cited by several speakers as important to the airport system. They benefit the system by eliminating the conflict between little airplanes and big airplanes at high-volume metropolitan airports. They also benefit the system by providing economic activity in parts of the Nation that would not have that activity if the airport were not there.

Small airports provide national as well as local benefits. An issue that must be addressed is how to apportion the costs of these facilities among federal, state, and local governments.

The commonly held view is that these costs are covered by user fees levied by federal, state, and local agencies. While it is true, it masks the fact that airline passengers who pay ticket taxes and PFCS are subsidizing smaller airports that do not have the revenues to cover their operating costs. There is a federal interest in the airport network as a system and, therefore, a basis for funding airports. The issues are how much is needed to assure a safe and efficient airport system (adequate unto future needs), and how the responsibility for

funding should be allocated to the government entities at interest, and how to provide sector investors.

Richard Weiss
Experimental Aircraft Association

From a general aviation perspective, the GAO report appears to curtail severely or cut off altogether federal support for small GA airports. This leaves GA somewhere below the survival level in the food chain. Local funding and state assistance are not enough to keep these airports open, much less to maintain or upgrade airfield facilities. A set-aside for small GA airports in AIP is essential to preserve these facilities that are the grass roots of personal aviation. These airports, which number about 2,800 sites, are nurseries for persons learning to fly, for airmen seeking higher skills and more flying experience, and for training of aircraft mechanics.

General aviation airports also provide a nationwide network of sites that can relieve congestion at other (larger) airports and segregate small GA aircraft from jet and turboprop traffic in metropolitan area airspace. GA airports provide a further benefit in that they provide access to the air transportation network for persons living in isolated communities.

GA airports are a national asset, and they deserve a place on the national list of priorities for the air transport system.

If there is going to be a partnership of the airline community, federal and state governments, and everyone else in the aviation community, all sides have to give something.

At the present time a lot of effort is devoted to building nice airports. I am all for nice airports, but I wonder if this is what the air transport system needs. Many recent projects and many more proposed projects are for the purpose of increasing capacity at hub sites. In other words, we are adding capacity to deal with peak demand or to solve problems resulting from past projects to accommodate peak demand. This money could be used for other things. If we are going to be innovative, we need to flatten out these peak demands.

There is still a lot of concrete available. The problem is that capacity is not available at the right time. If flights were spread out and schedules adjusted to off-peak periods, the available concrete could be used. This might free funds for other projects that could benefit small commercial airports, relievers and GA facilities.

Susan B. Jolie
Attorney

I am now an attorney in private practice, but for several years previously I was a Civil Aeronautics Board (CAB) rate-making attorney. Later I took up the area of competition policy. Some of the issues raised at this meeting are familiar to me from my CAB experience. I would like to offer some cautionary comments that may be helpful in the search for solutions to who pays and how payments are made.

It is obvious from the regulatory experiment, particularly rate making and fixed fares, that such measures do not work for the aviation industry. There are many different reasons.

Fundamentally, the utility model is one in which you have true monopolism. Demand is fully inelastic. Everyone needs electric power, water and other such public works because they are necessities. Air transportation is not a necessity. What we learned from rate-making experiments was that network effects cannot be captured. They are there. They are obvious. But to quantify any of these effects in terms of economic benefit is an impossible exercise in futility.

We need thoughtful discussion about how to price air travel and how to make people pay fairly. Adopting some of the economic models for rate making will not necessarily help to get a better solution. You may carry out detailed analyses and careful experimentation, but in the end it may prove futile, and you are back to making decisions that are based on political considerations. Such considerations are not always bad. Oftentimes they reflect reality.

One of the ways to categorize costs, distribute the burden equitably, and be politically acceptable, would be to have rates established on the basis of airline passenger revenues, not strictly costs to airports for transportation services. When airlines have to reduce fares in response to market conditions, their costs of operation should diminish proportionately. If you take a flight plan approach, you may want to weight the rate structure so that the smaller aircraft, (such as those used by regional airlines) do not pay as much as the larger air carriers.

I do not think this can be done using a rate-making model. But it may make some sense for addressing, or avoiding, some of the competitive issues and some of the problems of overcoming industry resistance.

Another observation I would make, based on experience in the 1980s, is that we have to be very careful about accepting the Wall Street view that there is plenty of money available. The airlines, by Wall Street's assurance of available capital, took on a large amount of debt to engage in leveraged buyouts and excessive aircraft acquisition.

One thing that is often not taken into account when considering who pays and how they pay, is the cyclical characteristic of the airline industry. Airlines will overperform the economy in good times, and underperform the economy in bad times. In this situation, airports and governments, quite understandably, try to get a fixed amount of return over the long run.

With leverage, airports use the income stream of the airlines as a basis for repayment of their debts. The cost to the airlines and passengers using the airport will remain fixed. When there is a downturn of traffic, airlines will be

confronting a situation in which they have high fixed costs related to airport use. Airlines may not be able to have revenue sufficient to the costs.

The idea that costs can be passed through to passengers depends where you are in the cycle. The airline industry can pass costs through to air travelers when capacity is limited, but when there is excess capacity in a cyclical downturn, it is impossible to pass all those costs through.

In offering these considerations, I stop short of attempting to answer the questions about who pays or how it should be paid for. That is going to take much more study.

Sam Whitehorn
Aviation Subcommittee
Senate Committee on Commerce, Science, and Transportation

For I don't know how many months and years, the Senate and House Committees on Aviation have tried to reach an understanding of the appropriate level of FAA airport funding. One of the things that came out of these deliberations was a request for GAO to carry out the study that has just been completed. We asked GAO to put in context how much money the airport community needed. We also look to the newly-appointed National Civil Aviation Review Commission to examine all the pieces and estimate how much money is needed and to examine the questions of who pays and where the money comes from.

If we know more about needs and funding requirements, we can go to the bond market for information about the percentage of private capital that might be obtained for various types of airport projects. This, in turn will help us determine the level of federal funding needed. Our original assumption was that AIP funding should be about $1.6 billion annually through 2002.

The Administration, however, proposes $1 billion for AIP. At this level, the formulas do not work. Many of the complaints about the impacts on the states' smaller airport operators are very real. Present AIP distribution formulas cannot be maintained at the lower funding level. The brunt of the funding cut-back may fall on small airports, especially GA airports.

I believe strongly that there is a federal interest in the airport program. In my home state of South Carolina, I can tell you that every county, except one, has an airfield. Most are World War II vintage. They have either single or crossing runway patterns. The grass is beginning to come through. They are all GA airports, and they all have problems. There is almost no money in AIP for these airports. This is not a problem unique to South Carolina; it is a problem throughout the United States.

Moe Haupt
National Business Aircraft Association, Inc.

I am the NBAA senior manager for airports and environmental services, and I have just a few comments.

The airport system must be considered as a system, not a patchwork quilt. It must be considered a system, and general aviation airports are part of the system. For instance, the air carriers use a little over 600 of the designated Part 139 airports. NBAA members use about 4,500 airports throughout the United States. All are part of the same system. Small airports are the places where people begin their aviation experience: Pilot training, mechanic training, airport management, etc. A 747 captain flying overseas may have started at College Park Airport in suburban Maryland.

One of the biggest problems in retaining airfield locations is that most general aviation airports do not make money. That is a plain and simple fact. Some of these general aviation airports, including private airports may be lost due to financial problems. New uses for land at or around existing airport locations may have come into being; and since general aviation airports do not make money, they are not considered valuable. In fact, most small GA airports require a stipend from the city, county, or state. The local politicians often tire of hearing that the airport needs $100,000 to subsist every year. Regardless of what an airport brings into the community, local politicians may not consider the airport a worthwhile expenditure, especially if taxpayers believe there are better (more profitable) uses for the land. These airports need financial help. My question is how do you help such airports. The Passenger Facility Charge (PFC) funds, which were supposed to have a trickle-down effect, have not worked as completely as expected. The PFC may have worked to some degree, but not to the extent that it was supposed to in helping smaller airports and to provide a funding source. Perhaps we need to fix it so that it does happen. I do not know how it can be done, and I throw the question out to you.

PFCs have not produced the financial help to general aviation airports that was originally envisioned. I would also like to know what happened to FAA capacity studies. That program has just dimmed; and like the Hale-Bopp comet, it went away. Let us take another look at how we can improve capacity at all airports, large and small.

Raymond J. Rought
Minnesota Department of Transportation
Office of Aeronautics

The only alternative way of funding the Airport Improvement Program that has been mentioned today is

issuing obligation bonds. This is simply putting the funding obligation off onto somebody else. In effect, it is mortgaging the future, often for periods of 10 years or longer. Nothing is really added to the system; it simply amounts to advance programming of future projects at the expense of work needed now. One of the charts distributed today clearly showed that at sometime someone must pay, either through a tax levy or an obligation of future revenue, if there is revenue to be gained.

The Airport Improvement Program could be passed to the states, as it now is in states participating in the Block Grant Program. Perhaps the states could run it more efficiently, but only if the Federal Government does not pass along to the states the unfunded mandates. The Gore report recommends speeding up implementation of the National Airspace Plan. The report also implies that airport authorities, the state or local governments or private businesses are to assume responsibility for maintaining and replacing electronic navigational aids as the Federal Government gets out of the business in 2005. This would impose additional costs that airport sponsors, state governments, and municipalities are going to have to pick up and fund from their already limited budgets. Many do not have the money to accept this obligation.

In the case of Minnesota, because of delays in federal appropriation of grant money, the Office of Aeronautics has had to go to the State Legislature this year to ask for more construction money to make up some of that difference lost to smaller airports from the reduction in AIP funds. That money comes at the expense of other existing and new programs. The Office of Aeronautics has altered the sharing formula from two-thirds state funds and one-third local matching funds to 60 percent state funds on airside infrastructure and 50 percent on revenue producing and landside improvements. FAA should undertake a serious review of the participation percentage rate in AIP. It does not necessarily have to be 90 percent federal and 10 percent local on every project. Let the states, as partners, determine a fair match based on availability of federal, state, and local funds. We would be able to decrease the backlog of needs by accelerating the project schedules in many cases.

I was happy to hear some people say privatization does not work. I have yet to see a project that shows it does work. We heard about privatization at the TRB Annual Meeting in Washington this past January. We have heard throughout the last five or six years that privatization is the answer. If you're going to privatize something, somebody is making a profit. That's business. Ultimately, the cost has to be higher or services have to be reduced. Somehow someone has to pay, which usually means it comes down to the customer.

I do not know that the existing system is really broken. Going into the 1990s we were anticipating a gradual decrease of Trust Fund outlays and the need to revise the system of funding. Since that time Congress has failed, on two occasions, to reauthorize the taxes feeding the Trust Fund. It is time to reexamine the tax structure. If we need to, let us increase the fuel tax or look at other revenue producing alternatives. The major airlines believe they are paying more than their fair share and others are paying too little. Let us look at the parts of the tax structure that may not be working and find a way to make improvements. The one thing we do not want to do is create additional debt for future generations.

Emmett H. O'Hare
Division of Aeronautics
New Jersey Department of Transportation

As a block-grant state, New Jersey is a partner with FAA. We opted into that partnership because it made sense for both of us. We were both doing the same job. New Jersey was funding airport projects; FAA was funding airport projects. We had joint meetings, and we shared the effort. In doing so, we thought we were going to get a good handle on how to spend our state money and federal money at airports in New Jersey.

Let me tell you a little bit about New Jersey. It is the Nation's most densely populated state. You cannot step very far without intruding on somebody else's turf. Aviation is not one of the favorite words in New Jersey. The expanded east coast plan has led to members of Congress sending letters to FAA on an hourly basis complaining about noise from airplanes flying over the state at altitudes from 10,000 to 15,000 feet, mind you. This gives you an idea of the mind set of people living in our state. In the areas around small airports there is community distrust that improving a 1,900-foot grass strip is going to lead to it becoming the next 747 airport in the state. We really have problems getting our citizens to understand these kinds of things.

Our needs are to preserve airports, not air carrier airports, but general aviation airports with runways of 3,000 feet or less. These airports have 100 to 400 based aircraft, and many have operations approaching or exceeding 100,000 a year.

If 10 of the reliever airports in the State of New Jersey were to close, the reliever problem that the Newark and Philadelphia airports do not have today would suddenly emerge because there would be 1,500 additional airplanes that would have to be based somewhere. These 1.500 small airplanes would not necessarily go to Newark; they could go to Morristown, Teeterboro, or other places where corporate jets operate. The owners of corporate jets will not want to go where all the little guys are in the way, so they will go to Newark.

As a result, Newark and Philadelphia are going to encounter delays they did not expect to have because the

reliever system is working today. We need to watch this closely. We need to make sure that these GA airports are preserved.

How do we do it in New Jersey? We conduct master plan studies at all of our airports. We make sure that our capital improvement program is absolutely on target. We include this information in the state aviation system plan, and we send it to FAA.

From the supply side, not all airports are created equal. So financing programs are financing problems in New Jersey. If a small town were to decide to issue bonds to support the local airport, it would probably be the last thing that town board does before facing a recall. Communities cannot pay even 25 percent of the costs. They are lucky if they can come up with 5 percent. Federal grants can be up to 90 percent, New Jersey can provide 5 percent, and the locals have a hard time coming up with 5 percent because the communities are not in favor of it.

We conducted a statewide economic study to demonstrate that small airports are beneficial to the people living in the state. Unfortunately, it did not help. The aviation community is the 16th largest employer in New Jersey. It generates $3.9 billion a year in economic benefits to the communities. The people do not want to hear that. We cannot turn to them and say, "You need us." They do not think they do.

The businesses in the state use airports. More than 65 percent of all aircraft operations in New Jersey are business-related. So there is definitely a need for business aviation airports, but we cannot turn to the people of the state and say, "You've got to come up with this money." We need FAA to stay in the business of supporting air carrier airports.

We need FAA to continue to provide AIP funds for reliever and general aviation airports. Please do not get out of that business.

Jeff Gilley
Aircraft Owners and Pilots Association

The Aircraft Owners and Pilots Association (AOPA) represents general aviation users. We have 340,000 members coast to coast. I can tell you that, when we hear from our members all over the country, the highest priority in the airport world is preserving the existing infrastructure that we have.

Just to recap briefly. We have about 5,500 public use airports in the country. 4,000 are publicly owned airports, and the balance of 1,500 are privately owned. It is this last segment, the 1,500 privately owned public-use airports that we are losing.

We are losing these airports for a variety of reasons. We lose many of them that are located in urban areas where the property tax liability on the airport as the area grew up around it, now exceeds the revenues of the airport itself.

Many of the private airport owners are nearing retirement age. They are looking to sell, preferably to somebody that would keep the airport open as a general aviation facility, but these examples are few and far between.

Most of the privately owned public-use airports, are not eligible for AIP funding (i.e. they are not listed in the NPIAS). Those that are will have a hard time receiving enough federal aid to be acquired, and the property is going to be lost for aviation purposes.

Roger Moog spoke of the Philadelphia metropolitan area. In that area alone, there are two general aviation airports. One is Wingsfield, the other is the New Garden flying field. Both are reliever airports in the Philadelphia area. They will probably have a very slim chance of getting federal financial assistance to assist a public entity, such as a city, county, or airport authority in acquiring the property. The purchase of one airport would exceed the general aviation apportionment for the entire state.

The consequences of losing these airports is that the displaced aircraft may have nowhere to go. If these displaced aircraft are based at general aviation airports in urban areas, they will have to go to other congested airports and add to the problems there.

Although the big problem is at the privately owned public- use airports, the 4,000 publicly owned airports are not without their own set of problems.

In the publicly-owned airport world, we have just had a long battle in trying to reopen and preserve Meigs Airport in Chicago. We've gone through a similar situation with Lost Nations Airport in Ohio, where the mayor came to Washington to visit the congressional delegation and seek closure of the airport.

Pompano Beach Airport in Florida, is another example where the community is seeking closure. The airport is in a highly urbanized area and has a large number of operations. We also narrowly averted closure of a major airport near San Jose, California. The problem, as we see it, is not necessarily money.

One of the biggest problems cited by our members is the difficulty of getting the people in the community—especially those who sit on city councils, county commissions, or airport authorities—to recognize and understand the value of these airports, not only to pilots, but also for people in the community who do not necessarily fly themselves.

Over the years, this has been a big problem, and it remains that way today. There is no need to sell somebody on the value of the Fort Lauderdale International Airport. On the other hand, the executive and the reliever airport that is located 10 miles away and has almost as many operations, is under constant attack. It remains difficult to sell the community on the inherent value of general aviation airports.

It is true that we need money for airport preservation and improvement of the airport infrastructure that we already have, especially those surplus World War II airports that have

the grass growing up through the cracks. There is a large number of them out there. Just preserving what we have now is a major challenge.

Paul Shank
Airport Consultants Council

There's been a lot of discussion in the last three years over wish lists—the varying perceptions of reality—by airlines, airports and FAA. I would like to draw attention to the estimate of total airport needs as identified in the GAO needs study. The GAO's normalized estimate of needs of $50 billion should not be interpreted as the upper limit of needs. It should not constitute a glass ceiling. As the GAO report notes, their estimates of needs are based upon preliminary planning estimates, not what I would call "hard planning"—planning completed in sufficient detail to accurately identify the true projected costs of construction.

We are all aware of instances where actual airport development costs were grossly underestimated when compared to the original estimates made during the planning phase. The impact on meeting the needs of the rest of the Nation's airports are profound when these differences are measured in the hundreds of millions of dollars actually invested. I concur with GAO's notation in the needs study that the difference between planning estimates and actual construction costs can be off by as much as 30 percent. Therefore their normalized estimate of needs should be increased proportionately to reflect the real probable costs. The ceiling of needs should be raised by as much as 30 percent to reflect the true costs of meeting airport needs.

I do not believe, although the GAO can correct me on this, that the needs study includes the costs associated with the mandates that are coming out of the Gore Commission recommendations for increased airport security measures. These changes are going to be profound, and they are going to occur in the same period covered by the GAO needs study, and will result in a significant increase in airport needs.

Furthermore, some experts in the security industry believe the Gore Commission's numbers are understated. I would strongly encourage GAO in their Phase 2 effort to go back and revisit their Phase 1 estimates. I urge the GAO to talk to the consultants who are in the security business for their views on the costs that will have to be incurred.

Another concern is the impacts that future aircraft will have upon existing airport infrastructure. I know FAA is trying to deal with New Large Aircraft (NLA), and the additional airport features needed to accommodate them: stronger pavements, larger airside runway and taxiway geometric separation, and larger airport terminal gate areas. There seems to be a lot of maneuvering going on in the industry, but the consensus is that many existing airport pavements, airfield geometrics and terminal facilities cannot accommodate them. The NLA are going to have a big impact on airport development costs. I do not believe the GAO needs study addresses these additional needs. Several airports today, are developing estimates for the cost of new terminal facilities, and they are trying to anticipate what those needs will be.

I am also concerned that we do not have a really good handle on what part of the total funding demand is ineligible for AIP. The GAO needs study does attempt to address the issue in their report, and there has been a lot of discussion about it within ACC. I understand that there is a preliminary number in the FAA 1997 NPIAS update. The number just seems low to me. I do not know FAA's source for this estimate. I would strongly encourage GAO to try to quantify this number.

As the GAO's Phase 2 study moves forward, it will be important to take a harder look at how much of the needs of the total system,(the 3,300 public-use airports in the National Airport System) are ineligible for AIP funding. We should not rely solely on ACI's estimates of unfunded needs based upon their survey of 140 commercial service member airports, which uses a linear regression to estimate the total needs based upon those who responded. We need to investigate the unfunded needs of all 3,300 airports that constitute the National Airport System. We also need to take a look at the increased funding that would be needed if all of the 4,400 airports in consolidated state systems plans were considered.

We need to know the total eligible and ineligible needs of the Nation's airports. Lacking an accurate knowledge of this need, we cannot begin to understand the impact of inadequate airport funding and the imbalance that must be borne by the airport industry. You have got to know the total picture in order to know the total impact.

The general aviation representatives here today have commented on the size of general aviation's contribution to air transportation. It is often claimed that air carriers account for 95 percent of the passenger traffic. This number may be high. FAA estimates that 84 million passengers per year fly in general aviation aircraft. If so, the general aviation share amounts to 15 percent of air travel. The point is that GA makes a significant contribution to the Nation's passenger carrying capacity. This traffic is not just business (corporate) aviation, but all parts of general aviation. General Aviation cannot be left out of the funding program.

In reference to Mr. Lewis' comment about the psychology of airport investment, I have noticed that in my career of twenty years and more in aviation, that many airports, especially small commercial service airports and general aviation airports, really have a mind set that they do not want to rely on leveraging to develop their airports. They do not want to borrow. They want to pay as they go. They want the money in the bank before the project moves

ahead. They are reluctant to take a risk. There are some airport investment horror stories like in Worcester, Massachusetts where the risk was taken. They built a great terminal facility and assumed that passenger service would continue to grow. It didn't. The risk-aversiveness of small airport sponsors should be factored into the equation for innovative financing.

Lastly, I would like to have clarification from Mr. Browne of ATA about the term, "scheduled work." I think it was taken out of the AMIS database which also uses that term. The total given for scheduled work was $30 billion.

Mr. Browne also gave a figure of $10 billion for "additional scheduled airport work" over the next five years at some 2,100 airports. Is the total AMIS estimate of scheduled work, $40 billion or $30 billion? (Mr. Browne: 30 billion) Then out of $30 billion, $10 billion is for additional work at 2,100 airports.

Mr. Browne: The first cut was $20 billion, and we added 2,100 airports and that added $10 billion.

Mr. Shank: I want to applaud ATA for looking into the AMIS estimate of total needs. It is probably the only existing source that I know of where it is possible to obtain information on both eligible and ineligible airport needs on a common basis. I understand the AMIS includes data for both the eligible and ineligible project costs for all the airports they have surveyed. I hope that GAO will buy the whole model and recompute their needs analysis and validate the eligible and ineligible needs according to its surveys.

SUMMARY AND CLOSURE

Participants at this workshop represented a diversity of views from across the aviation community. Given this broad range of perspectives, the observations and suggestions voiced at the workshop were varied and sometimes at odds. What follows is a summary of "converging views" that were widely held and considered important by many participants, "open questions" on which there was less general agreement, and "next steps." The points summarized here do not, however, represent "consensus" findings or recommendations of all of the participants and should not be construed as such.

CONVERGING VIEWS

Federal Role

The Federal Government has (and should have) a role in financing airports in the United States. While there are questions about funding levels, allocation of AIP grants, and the conditions of government involvement, federal participation is the cornerstone.

Funding Needs

The needs studies conducted by various parts of the aviation community and by the General Accounting Office seem to be reasonably consistent. These studies have narrowed needs estimates to a workable range.

Further adjustments or refinements would be of little value. There is a suitable approximation that is narrow enough to establish the range of funding needs.

Financial Aid for Airports

General aviation airports will require continued federal and state assistance. Very few of these small airports have the resources or the access to capital markets to make necessary improvements or expansion.

Larger airports (mainly primary commercial service airports, but including large general aviation facilities as well) appear to be capable of financial self-sufficiency. Nevertheless, there are some circumstances (even at the largest hub airports) that may require federal assistance.

Partnerships

There is a need to sustain and strengthen the role of partnerships in identifying capital requirements, funding projects, and managing airport development. So long as each partner brings something of genuine value to the table, partnerships are an effective management and financing tool.

Capital Markets

The capital markets are ready, willing, and able to provide major funding for airport projects and even partial funding for projects that demonstrate requisite earning power.

For certain kinds of airport projects, some of the benefits occur not only at the airport site but elsewhere within a region or nationwide. Capital markets have difficulty in dealing with these so-called network effects where value and earning power are diffused more widely. In the view of many in the aviation community, FAA, in cooperation with airports and airlines, should take on the task of guiding network development and encouraging projects that have regional or systemwide significance.

OPEN QUESTIONS

General Aviation Airports

There is a clear need for federal assistance at general aviation airports. The questions are, how are these airports to be identified and how are they to be qualified for federal assistance when viewed from a national perspective?

Mechanisms

By what criteria and with what mechanisms are federal airport grant funds to be allocated to large and small airports alike? Several new approaches were suggested, but the aviation community is not yet in a position to rewrite the book on allocation formulas.

Who Pays?

Despite the general agreement that users should pay, it is far from clear how this can be fairly worked out. Large airports appear to favor a substantial federal role, even though they have easy access to capital markets, the ability to use PFCs, and airline support. Small commercial airports and general aviation facilities are pressing for a larger share of AIP funds. The question of who should pay for various kinds of projects, and how much, is something that has to be studied in considerably greater detail.

Who Decides Who Pays and Controls How It is Done?

The more thorny question is who decides who pays: airports, airlines, the Federal Government, or some combination of the interested parties. A separate but related question is who controls the decision-making process. These are open questions upon which there is no clear agreement.

Innovative Financing

Innovative financing is not dead. Studies and experiments suggest that the matter is deserving of further study and trial. The infrastructure bank concept and other schemes for providing funds and making more effective use of capital need to be examined more closely.

NEXT STEPS

Defining a Federal Role

The present controversy over funding gaps, AIP funding levels, and realignment of responsibility for various types of airport development clearly should address FAA's missions and roles.

Promoting the Competitiveness of U.S. Industry

Aviation can play an important part in helping to make the United States more competitive on a global scale. This calls for FAA to broaden its concerns and go beyond technological interests and matters of safety and capacity. FAA should examine the aim of promoting U.S. competitiveness and expand its thinking to economic dimensions. In trying to understand the role of airports in furthering the ability of the United States to compete globally, FAA should consider whether this creates a justification for heightened federal involvement in airport financing.

Categorizing Airport Projects

The aviation industry should rethink the way in which projects are classified. In the past few years we have learned much about the nature of the benefits that airport development yields. Some benefits are confined to the locality, others spill over into regions. Still others benefit the national economy and, indeed, go to the very heart of the nation's global competitiveness.

FINAL REMARKS

Susan Kurland
Federal Aviation Administration

The discussion today has been a very good beginning. We have had a very constructive exchange of views.

This year we have a great opportunity to grapple with the issues we face and to make progress in getting them resolved. We will soon be in a position to provide good material for the National Civil Aviation Review Commission (NCARC) as it begins deliberation and prepare recommendations to the Congress and the Secretary of Transportation.

The summary identifies several areas of common ground, but much work remains to be done. FAA will continue to examine issues such as the federal role, what airports should be included in the system, and innovative financing measures.

The 1996 reauthorization directed FAA to approve up to 10 projects for innovative financing–measures such as use of PFCs for debt service, bond insurance, or other credit enhancements–and provides for flexible nonfederal funding shares. FAA has received several proposals and is in the process of sifting through them. FAA hopes to have additional information on financing for NCARC to consider.

I am pleased with what came out of today's meeting. When the NCARC meets, I am sure they will want to talk to many of the people in this room. When we go before the Commission, we will have greater common ground and better focus on how to present our views.

FAA will continue talking to each of you. We have good relationships upon which we can build. Thank you all for your help in making this a very successful day.

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