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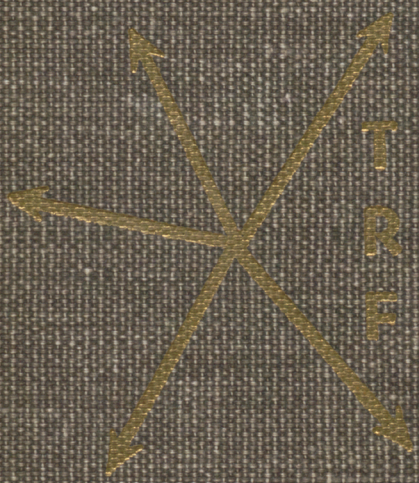

TRANSPORTATION RESEARCH FORUM

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Theme:

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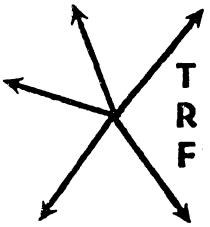

TRANSPORTATION RESEARCH FORUM

Commuter Air Carriers and Federal Equipment Loan Guarantees: History Repeating Itself?

by Kenneth C. Williamson and Lawrence F. Cunningham***

INTRODUCTION

IN ADDITION to gradually restoring the federally certificated air carrier industry to an unregulated market environment, the Airline Deregulation Act of 1978 affords commuter air carriers access to federal equipment loan guarantees and direct operating subsidies for the first time. Commuter access to these two forms of public aid reflects Congressional recognition of the important task they perform as a vital part of the nation's air transport system. Their eligibility for these aids is intended to foster the development of genuinely "local" scheduled passenger air transport service.

The local service airlines continue to have access to equipment loan guarantees and operating subsidies as they had prior to the Act of 1978. They have been the principal users of these aids as, presumably, their **raison d'etre** for existence since the early 1940s has been to connect small communities with the nation's long-haul route system, or at least to serve those communities too small to support trunk airline service. Relative to the type of service which commuters have successfully developed, however, the local service carriers can no longer be said to provide a service which can be genuinely characterized as local; i.e., short-haul, light density in nature.

The local service airlines have been outgrowing small community service for some time, and this process seems to be continuing apace today. This phenomenon is attributable in part to the growth and prosperity accruing to well managed business entities meeting the challenges of the market. However, the several studies of public policy's efforts to develop small community air transport service via these carriers are in concensus that public aid, particularly in the form of operating subsidies, has had a significant role in enabling them to develop into the type of airlines whose operations are too large to be supported by local route systems.[1]

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PURPOSE

The Act of 1978 has restructured the subsidy program such that a carrier is remunerated only to the extent necessary to support service to a specific subsidy eligible community. This contrasts with the former method whereby the subsidy was based upon the carrier's entire system need simply because that system included unprofitable points which the Civil Aeronautics Board (C.A.B.) required the carrier to serve. It is therefore structured more soundly but will require more experience than has accrued to date in order to discern clearly what affect the change is having on the pattern of small community service.

A better indication of the possible long-term impact on the pattern of small community service provided by commuters might be gained by examining what is transpiring under the equipment loan guarantee program. Accordingly, the purpose of this paper is to identify

1. the amount of loan guarantees made available to passenger carrying commuter air carriers to date,
2. the types of aircraft which these carriers have acquired with loans backed by a federal guarantee, and
3. the markets in which these aircraft are in service.

The evidence will be used to test the hypothesis that the type of aircraft being acquired and the markets they are operating in suggest that public policy may be embarking on a repeat of the local service airline experience. That is, commuters may be acquiring aircraft better suited for operating in longer-haul, higher passenger traffic density markets as opposed to the short-haul, light density markets which have been their traditional market niche. Conse-

quently, this form of public aid is undermining its ostensible purpose to the extent that such acquisitions are being made possible with loans backed by federal guarantees which would not have been obtained otherwise.

THE SMALL COMMUNITY SERVICE PROGRAM

From the mid-1940s to some point during the decade of the 1970s, it was the certificated local service airlines which the C.A.B. and the public primarily depended upon for the provision of small community scheduled passenger air service. In attempting to insure

1. the dissemination and continuity of small community service and
2. the local service airlines' financial and physical capability to provide it,

the C.A.B. has at various times since the 1940s administered four major policy measures. These include

1. direct operating subsidy,
2. certification,
3. a "route strengthening" and a "use it or lose it" program, and
4. equipment loan guarantees.[2]

The merits and demerits of the first three devices as means of fostering and insuring adequate small community service have been thoroughly examined by academicians, the U.S. Department of Transportation (D.O.T.), and the C.A.B.[3] The program of equipment loan guarantees, however, seems to have received the least attention and to have generated the least controversy.

The Regulatory Era

The airline loan guarantee program began with the Government Guarantee of Equipment Loans Act of 1957. From that time until its most recent amendment by the Airline Deregulation Act of 1978, only those air carriers operating under the authority of a certificate of public convenience and necessity issued by the C.A.B. were eligible for loan guarantees. The purpose of the program was

> . . . to provide for Government guarantee of private loans . . . for purchase of modern aircraft and equipment, to foster the development and use of modern transport aircraft . . . and for other purposes.[4]

If assessed solely by the criteria of facilitating the purchase of modern aircraft and equipment and fostering the development and use of modern transport aircraft, the loan guarantee program may be adjudged a success. The opposite conclusion is suggested, however, if the program's effectiveness is evaluated in terms of its contribution to the development of small community service by the local service airlines. With the exception of calendar years 1968-69, the number of communities served by the locals in the 48 contiguous United States declined steadily from a peak of 468 in 1965 to 368 as of August 1980, two months prior to President Carter's signing of the Airline Deregulation Act of 1978.[5] By 1 May 1980, the number of communities served by the locals in the 48 contiguous states had declined to 298.[6]

This reduction in the number of communities served by the locals cannot be entirely attributed to the loan guarantee program. The evolution of the route systems served by the locals is in part the consequence of any firm's natural and logical tendency to concentrate its resources and efforts in those markets offering the greatest profit potential. In the case of the locals, however, this evolution was underwritten to a significant extent by the manner in which the four policy measures cited earlier were administered. The loan guarantee program is one of those measures. According to a 1972 C.A.B. study, "In its loan guarantee program and, to some extent, in its route opinions as well, the Board has encouraged the purchase of larger aircraft by the local service carriers."[7]

It is reasonable to suspect that the program has enabled these carriers to outgrow small community service to the extent that loan guarantees have enabled them to secure loans from private lenders which they (a) would not otherwise have obtained, or (b) would have obtained at a later date and/or at higher interest rates. It has done this by enabling them to acquire, sooner than they otherwise might have, larger, more expensive, and more expensive to operate aircraft unsuited to small community service. One would then be led to expect what the empirical record reveals: a continuing long term decline in the number of communities served. As a 1976 D.O.T. study states,

> . . . certificated service has been lost by many small communities, and the quality of service (measured either in terms of frequency or markets served) has been reduced at many of the small communties still served by certificated carriers. This long-term trend shows no sign of slackening and, if anything, is increasing in speed.[8]

The Era of Deregulation

While local airline service to small communities has declined, small communities have not been isolated from the nation's air transport system. Many communities have been displeased with the immediate consequences of deregulation as the airline industry adjusts to the phasing in of an operating environment which it has not known since 1938 when economic regulation was first imposed upon it. However, the adverse impact has been mitigated by the existence of the commuter air carrier industry.

Passenger carrying commuter airlines were serving 2,105 city pair markets (CPMs) as of 31 December 1979. More than 50% of total commuter passenger traffic has been in CPMs under 100 miles in nonstop mileage for the years ending 30 June 1971-79. The commuter industry's average nonstop mileage has been under 150 miles for every year ending 30 June 1972-79, while the locals' average nonstop mileage increased consistently over that same period from a low of 161 miles to 238 miles by 30 June 1979. For the years ending 30 June 1971-79, the commuters' average passenger trip distance fluctuated from a low of 100 miles to a high of 115 miles. The locals' average passenger trip distance increased consistently over that same time period from a low of 283 miles to 364 miles by 30 June 1979.[9]

In recognition of this performance, the Airline Deregulation Act of 1978 amended Section 4 of the Government Guarantee of Equipment Loans Act. With respect to commuter air carriers specifically, the law mandates that

> . . . no guaranty shall be made unless the Secretary of Transportation finds that the prospective earning power of the applicant commuter air carrier . . . together with the character and value of the security pledged, furnish reasonable assurances of the applicant's ability and intention to repay within the time fixed therefor, **to continue its operations as a commuter air carrier . . .** and to the extent found necessary by the Secretary, **to continue its operations as a commuter air carrier . . . between the same route or routes being operated by such applicant at the time of the loan guarantee . . .** [10] (Emphasis added.)

If the loan guarantee program's experience with the locals suggests what may be experienced with the commuters, ability and intention to repay pose no problem. Since the program's inception in 1957 to January 1978, over $300,000,000 in guarantees were committed to approximately 20 certificated carriers for the acquisition of 149 aircraft representing 24 different aircraft types.[11] No carrier has yet defaulted. What is potentially troublesome is the intention of those commuters which receive loan guarantees to continue operations as commuter carriers.

This is not to suggest that the management of any commuter airline has or will deliberately and consciously misrepresent its true intentions in seeking this public aid. Rather, it is only to suggest that, because the commuter industry is a dynamic one as demonstrated by its growth and performance to date, management's intentions can and occasionally will change as market opportunities develop. The law should not attempt to preclude this adaptive process as it would undermine the very basis for the commuter industry's success in developing small community service. However, it is a matter of concern as to how important a role loan guarantees play in enabling and unintentionally encouraging commuters to revise their intentions and emphasize growth opportunities in longer haul, higher traffic density markets to the detriment of small community service.

The Act of 1978 further amends Section 4 of the Government Guarantee of Equipment Loans Act as follows:

> no guaranty shall be made unless . . . without such guaranty, in the amount thereof, the . . . commuter air carrier . . . would be unable to obtain necessary funds for the purchase of needed aircraft on reasonable terms . . .[12]

According to the Office of Aviation Policy (O.A.P.) of the Federal Aviation Administration (F.A.A.) which administers the program, no carrier is granted a loan unless it demonstrates that it is effectively impossible to secure a loan without a guarantee.

THE NEW LOAN GUARANTEE PROGRAM: EXPERIENCE TO DATE

In order to test the hypothesis that commuter airline access to equipment loan guarantees may be jeopardizing commuter passenger service to small communities, it is necessary to examine

1. the number and magnitude of loan guarantees granted since commuters became eligible for them,
2. which commuters are receiving loan guarantees and the relative distribution of the guarantees among them, and
3. the types of aircraft being acquired with loans backed by guarantees

and the markets those aircraft are serving.

Relative Distribution of Guarantees

Table 1 presents aggregate summary data concerning loan guarantee commitments made since commuter carriers became eligible for them in October 1978 when President Carter signed the Airline Deregulation Act. Through March 1981, a total of 15 different passenger carrying commuter airlines have been granted over $50,000,000 in loan guarantees to support the acquisition of 35 aircraft of 10 different types.

Table 2 presents data concerning the distribution of loan guarantees by size category of commuters. As of 31 December 1979, eight of the 15 commuters granted loan guarantees during FY 1979, 1980, or 1981 were among the top 50 commuter airlines in terms of total passengers transported during the year. These eight carriers accounted for 16.5% of total commuter passenger traffic and 20.4% of the passenger traffic transported by the top 50 commuters during calendar year 1979. Three of the eight carriers ranked among the top 10 commuters, and one of these three ranked second. The eight commuters in the top

TABLE 1

TOTAL EQUIPMENT LOAN GUARANTEE COMMITMENTS TO PASSENGER CARRYING COMMUTER AIRLINES

Fiscal Year	Number of Carriers	Number of Aircraft For Which Guarantees Granted	Loan Guarantee Amount
1979	3	5	$10,746,662
1980	11	26	36,764,838
1981*	3	4	3,984,659
Total		35	$51,496,159

*First half of FY 1981.

Source: U.S., Federal Aviation Administration, Office of Aviation Policy.

TABLE 2

DISTRIBUTION OF PASSENGER CARRYING COMMUTER LOAN GUARANTEES BY SIZE OF CARRIER

Category	Number of Carriers Granted Guarantees	% of Total Commuter Passenger Traffic Transported By Carriers Granted Guarantees	Total Loan Guarantees Granted	% of Total Loan Guarantees Granted
Top 50	8	16.5	$32,980,152	64.0
All Other	7	1.5*	18,516,007	36.0
Total	15	18.0	$51,496,159	100.0

*Excludes one carrier for which traffic data were unavailable.

Sources: Commuter Airline Association of America, 1980 Annual Report (Washington, D.C.: C.A.A.A., November 1980), p. 51.

U.S., C.A.B., Commuter Air Carrier Traffic Statistics, 12 months ended December 31, 1979 (Washington, D.C.: C.A.B., June 1980), Table 2 at pp. 7-12.

U.S., F.A.A., Office of Aviation Policy.

50 category received almost $33,000,000 in guarantees, or 64% of the total granted. Of this nearly $33,000,000, 48.4% went to the three commuters ranking in the top ten.

Four of the 15 passenger carriers granted guarantees and classified as commuters by the Office of Aviation hold Section 401 (of the Federal Aviation Act of 1958) certificates of public convenience and necessity and are no longer classified as commuter airlines by the C.A.B. These four carriers ceased reporting data to the C.A.B. as commuters during either calendar year 1978 or 1979.[13] Three of these four carriers were among the top 50 commuters in terms of passenger traffic during calendar year 1979. Two of the three top 50 carriers were among the top 10 commuters for the same period.

Tables 3 and 4 depict the same data presented in Tables 1 and 2 adjusted for the four carriers holding Section 401 certificates. These adjusted data reveal that 53.2% of nearly $35,000,000 in loan guarantees is committed to five of the top 50 commuters. These five carriers accounted for 7.8% of total commuter passenger traffic during calendar year 1979.

Aircraft Types

Table 5 compares the types of aircraft acquired by commuters with the aid of loan guarantees with the type of aircraft which had already been in use. Carriers

TABLE 3

TOTAL EQUIPMENT LOAN GUARANTEE COMMITMENTS TO PASSENGER CARRYING COMMUTER AIRLINES ADJUSTED FOR SECTION 401 CERTIFICATION

Fiscal Year	Number of Carriers	Number of Aircraft For Which Guarantees Granted	Loan Guarantee Amount
1979	2	3	$ 6,707,282
1980	10	20	24,151,418
1981*	3	4	3,984,659
Total		27	$34,843,359

*First half of FY 1981.

Source: Same as Table 1.

TABLE 4

DISTRIBUTION OF PASSENGER CARRYING COMMUTER LOAN GUARANTEES BY SIZE OF CARRIER ADJUSTED FOR SECTION 401 CERTIFICATION

Category	Number of Carriers Granted Guarantees	% of Total Commuter Passenger Traffic Transported By Carriers Granted Guarantees	Total Loan Guarantees Granted	% of Total Loan Guarantees Granted
Top 50	5	7.8	$18,550,772	53.2
All Other	6	1.5*	16,292,587	46.8
Total	11	9.3	$34,843,359	100.0

*Excludes one carrier for which traffic data were unavailable.

Sources: Same as Table 2.

TABLE 5

A COMPARISON OF COMMUTER AIRCRAFT TYPES WITH NEW AIRCRAFT TYPES ACQUIRED WITH THE AID OF FEDERAL EQUIPMENT LOAN GUARANTEES

Commuter Carrier	Aircraft Operated in Passenger Service as of November 1980		Passenger Capacity	Aircraft Acquired With Aid of Guarantees		Passenger Capacity
	Type	Number		Type	Number	
A	deHavilland Twin Otter	10	19	Swearingen Metro	1	19
	Swearingen Metro	8	19	Swearingen Metro II	2	19
	Beech 99	3	15			
B	Shorts 503-30	4	30	Shorts 503-30	2	30
C	Shorts 503-30	3	30	Shorts 503-30	2	30
	deHavilland Twin Otter	2	19			
D	Swearingen Metro	5	19	Swearingen Metro II	2	19
	Beech 99	3	15			
	Piper Navajo	1	7			
E	Beech 99	3	15	Swearingen Metro II	2	19
	Swearingen Metro	2	19			
F	Handley Page Jetstream	3	17	Handley Page Jetstream	3	17
	Piper Chieftain	2	8			
G	Cessna 207	5	7	deHavilland Twin Otter	2	19
	Cessna 402	5	8			
	Cessna Skyhawk	5	7			
	Cessna 206	1	7			
	Cessna 210	1	7			
	Cessna Skylane	1	7			
H	Beech 99	4	15	Beech 99	1	15
	Piper Chieftain	3	8	Beech 99A	1	15
I	Britten Norman Islander	10	8	Handley Page Jetstream	3	17
	Handley Page Jetstream	3	17			
	Piper Aztec	2	6			
	Piper Navajo	1	7			
J	Cessna 402	3	8	Embraer Bandeirante	1	18
	Embraer Bandeirante	1	18			
K	Beech 99	2	15	Fokker F-27	1	50
	Piper Aerostar	2	7			
	Beech Duchess	1	8			
	Fokker F-27	1	50			
	Piper Navajo	1	7			

Sources: C.A.A.A., 1980 Annual Report (Washington, D.C.: C.A.A.A., November 1980).

U.S., F.A.A., Office of Aviation Policy.

U.S., C.A.B., Aircraft Pressurization and Commuter Airline Operations (Washington, D.C.: C.A.B., June 1979).

A-E in Table 5 were among the top 50 passenger carrying commuters for calendar year 1979.

Five of the nine different types of aircraft acquired with the aid of loan guarantees are among the top ten aircraft types used by the commuter industry in terms of the industry's total available seat capacity. These five types include the Swearingen Metro, deHavilland Twin Otter, Beech 99, Shorts 503-30, and Fokker F-27. These five aircraft types accounted for 49.1% of the total commuter industry seat capacity, 26.5% of the total commuter aircraft operated, and approximately 39% of the total commuter industry fleet utilization in terms of number of hours flown during calendar year 1980.[14] These same five aircraft types account for 50 of the total of 101 aircraft, or approximately 50% of the aircraft, operated by the 11 commuters granted guarantees prior to the new acquisitions. The largest aircraft type acquired with the aid of a loan guarantee is the Fokker F-27. The F-27 has a 50 passenger capacity and has been acquired by a commuter which already operated an F-27.

Market Types

Table 6 presents data concerning the types of air traffic hubs served as of 1 March 1981 by 10 of the 11 passenger carrying commuters granted guarantees.[15] The size of a hub is

> . . . determined by each community's percentage of the total enplaned passengers in scheduled and unscheduled service of the domestic certificated route air carriers in the 50 States, the District of Columbia and other United States areas designated by the Federal Aviation Administration.[16]

A large hub enplanes 1% or more of the total enplaned passengers in all services and operations for all communities specified by the F.A.A. A medium hub enplanes .25% to .99%, a small hub enplanes .05% to .24%, and a nonhub en-

TABLE 6

TYPE OF AIR TRAFFIC HUBS AND NUMBER OF COMMUTERS SERVED AS OF 1 MARCH 1981

Category	Number of	Types of Hubs	Number of Hubs	Number of Communities Served By Hubs in Each Category
Top 50	5	Non	20	23
		Small	7	10
		Medium	7	7
		Large	13	14
All Other	5*	Non	8	12
		Small	6	7
		Medium	4	5
		Large	6	5

*Excludes one carrier which does not serve points in any of the 50 United States.

Sources: Official Airline Guide, 1 March 1981.
U.S., C.A.B., *Report on Airline Service, Fares, Traffic, Load Factors and Market Shares: Service Status on January 1, 1980* (Washington, D.C.: C.A.B., April 1980).

planes less than .05% of the total passenger traffic.[17]

Ten of the 11 commuters granted loan guarantees to date serve 28 nonhubs. This represents 39% of the total number of hubs of all sizes served by these carriers. These 28 nonhubs serve 35 communities, or 41% of the total number of communities served by the 10 carriers. This disparity is attributable to the use of certain airports which serve a cluster of two or more proximate communities.

The pattern which emerges from the hub interconnections is a set of route systems which feed traffic from smaller to larger hubs. This pattern, coupled with frequent daily flights, has been the basis for the commuter industry's development as it provides access to the nation's long-haul route system which originates and terminates with the medium and large hubs.

CONCLUSIONS

In order to accept this paper's hypothesis, it must be established that

1. commuters are obtaining loans with the aid of loan guarantees which they would otherwise not obtain,
2. the aircraft types being acquired with loans backed by guarantees are unsuited to small community service, and
3. these aircraft are being operated in longer haul, higher passenger traffic density markets at the expense of short-haul, light density route systems.

The 11 passenger carrying commuters granted guarantees to date were either unable to secure a loan at all or unable to secure a loan on reasonable terms without the guarantees. They have acquired aircraft types representative of equipment which was already in use and thus compatible with characteristically short-haul, light density route systems. These route systems are composed primarily of nonhubs and feed traffic from smaller to larger hubs, connecting small communities with the nation's long-haul air transport system.

The hypothesis, therefore, cannot be accepted in light of the evidence to date. It is true that the carriers would not have obtained loans for aircraft acquisition without the loan guarantees. But the aircraft acquired are compatible with their existing fleets and route systems. Consequently, commuter access to this public aid is not presently undermining the development of small community scheduled passenger service in the wake of airline deregulation.

This result is not unexpected for two reasons. First, commuters have had access to loan guarantees for only 19 months at this writing. To the degree that loan guarantees have contributed to enabling the local service airlines to outgrow small community service, this affect was produced over a period of 10 to 15 years. Second, commuters are limited by the C.A.B. as to the maximum size of the aircraft they may operate. The present ceiling is a 60 passenger aircraft.

It is interesting to note, however, the distribution of the commuter loan guarantee commitments to date. Over 50% is committed to five carriers ranking among the top 50 commuters in terms of the number of passengers carried during calendar year 1979. Because these five commuters operate the largest route systems, both individually and collectively, of the 11 commuters granted guarantees, the following possible scenario is suggested if this pattern of distribution of guarantees continues.

The larger commuters, encouraged by access to loan guarantees, expand their route systems faster than they otherwise would, relying in part on the guarantees for aircraft acquisition necessary to serve the expanson. As expansion proceeds, it becomes increasingly viable to think in terms of concentrating resources on longer haul, higher traffic density markets, which means the restructuring of route systems to connect the major points and delete the smaller ones. In order to employ larger aircraft (greater than 60 passenger capacity) required by such a development, carriers would have to obtain Section 401 certification. If certification is obtained, the carriers' growth is limited only by what managerial talents and financial resources supplemented by public aid will permit. Small community service is reduced or lost in the process.

This scenario is counterbalanced by several considerations. First, it describes a long-run phenomenon. Second, the loan guarantee program is scheduled to terminate on 24 October 1983. Long-run consequences, desirable or not, may never have the opportunity to develop. Third, there are presently over 200 passenger carrying commuters serving the United States and its territories. The growth scenario described would apply realistically to a relative handful of carriers, at least for the foreseeable future. Finally, the Reagan Administration appears to be serious about reducing the size of the federal government and its involvement in the market place. The Administration's rhetoric and budget cut proposals to date suggest that this loan guarantee program is a

likely candidate for permanent extinction on or before its scheduled expiration.

While the evidence to date does not support this paper's hypothesis, the more fundamental issue which the hypothesis alludes to is whether or not there is even a need for commuter access to equipment loan guarantees. The industry's growth and performance record over at least the past 12 years in the absence of federal economic regulation and public aid is a tribute to entrepreneurial risk taking. It can be argued on the basis of this record that there exist no compelling reasons to stimulate this growth and improve this performance artificially at least as cogently as it can be argued to the contrary in the wake of deregulation. The authors are not opposed to the growth of any commuters, even to the point of outgrowing small community service. It is only the manner in which public policy measures are employed to facilitate the development of small community service which experience under similar circumstances suggests will produce opposite results to which any objections are raised.

FOOTNOTES

1 See Lucile Sheppard Keyes, **Federal Control of Entry into Air Transportation**, Harvard Economic Studies, Vol. XC (Cambridge, Mass.; Harvard University Press, 1951); Paul W. Cherington, **Airline Price Policy: A Study of Domestic Airline Passenger Fares** (Harvard University, Graduate School of Business, 1958); Richard E. Caves, **Air Transport and Its Regulators: An Industry Study**, Harvard Economic Studies, Vol. CXX (Cambridge, Mass.: Harvard University Press, 1962); William A. Jordan, **Airline Regulation in America: Effects and Imperfections** (Baltimore, Maryland: The Johns Hopkins Press, 1970); George C. Eads, **The Local Service Airline Experiment**, Studies in the Regulation of Economic Activity, (Washington, D.C.: The Brookings Institution, 1972); and George W. Douglas and James C. Miller, III, **Economic Regulation of Domestic Air Transport: Theory and Policy**, Studies in the Regulation of Economic Activity (Washington, D.C.: The Brookings Institution, 1974); see, for example, U.S., D.O.T., **Commuter Air Carriers Staff Study** (Washington, D.C.: D.O.T., May 1972); **Air Service to Small Communities**, A Report by the Offiffice of Transportation Regulatory Policy, U.S. D.O.T. (Washington, D.C.: D.O.T., March 1976); and **Comments of the United States Department of Transportation on the Answer of the Association of Local Transport Airlines to the Report "Air Service to Small Communities"** (Washington, D.C.: D.O.T., 19 July 1976); U.S. C.A.B., **Regulatory Reform: Report of the C.A.B. Special Staff** (Washington, D.C.: C.A.B., July 1975); and **Five Truths About Subsidized Small Community Air Service**, Comments of the Staff of the Civil Aeronautics Board on the Booklet of the Association of Local Transport Airlines Entitled "Five Myths About Subsidized Airline Service to Small Communities" (Washington, D.C.: C.A.B., 6 March 1978).

2 Kenneth C. Williamson, "The State Role in the Development of Scheduled Passenger Air Service to Small Communities" (unpublished D.B.A. dissertation, University of Tennessee, 1979), Table III-1 at pp. 63-66.

3 See the materials cited at supra, n. 1.

4 49 U.S.C. 1324.

5 Williamson, "The State Role," Table I-2, p. 6.

6 Commuter Airline Association of America, **1980 Annual Report** (Washington, D.C.: C.A.A.A., November 1980), pp. 55-62.

7 U.S. D.O.T., **Air Service to Small Communities**, A Report by the Office of Transportation Regulatory Policy, U.S. D.O.T. (Washington, D.C.: D.O.T., March 1976), p. 29.

9 See U.S., C.A.B., **Commuter Air Carrier Traffic Statistics** for the 12 months ending 31 December 1979 and for the 12 month periods ending 30 June 1971-79 (Washington, D.C.: C.A.B., 1980) and **Air Carrier Traffic Statistics** for the 12 month periods ending 30 June 1971-79.

10 49 U.S.C. 1324.

11 Data provided by the Office of Aviation Policy of the Federal Aviation Administration.

12 49 U.S.C. 1324.

13 U.S., C.A.B. **Commuter Air Carrier Traffic Statistics** for the 12 months ended 31 December 1979 (Washington, D.C.: C.A.B., 1980), p. 3.

14 See C.A.A.A., **1980 Annual Report**, pp. 82-83.

15 See note at bottom of Table 6.

16 U.S., C.A.B., **Glossary of Air Transportation Terms** (Washington, D.C.: C.A.B., February 1977), p. 57.

17 Ibid, pp. 57, 58, and 70.