AIRLINE ENTRY FOLLOWING U.S. DEREGULATION: THE DEFINITIVE LIST OF STARTUP PASSENGER AIRLINES, 1979-2003

by

William A. Jordan*©
Professor Emeritus of Economics

Schulich School of Business
York University
Toronto, Canada

18331 Verano Place
San Diego, CA 92128-1240

wjordan@ucsd.edu

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ABSTRACT

During the debate leading to airline deregulation, it was widely predicted that a number of new airlines would enter the scheduled passenger airline industry following the elimination of economic regulation of **inter**state operations by the Civil Aeronautics Board (CAB). These airlines would join the eleven trunk, eight local service, two Alaskan and two Hawaiian carriers that were authorized by the CAB to operate scheduled passenger service with jet aircraft at the time the *Airline Deregulation Act of 1978[92 Stat. 1705]* was adopted on October 24, 1978.

Over 25 years have passed since 1978 and it is well known that a great deal of entry has occurred. However, there have been incorrect statements regarding the actual number of such airlines. For example, the *Economist* (July 10, 2004, p. 59) contained the following statement regarding "America's airlines": "Of the 34 newcomers created after deregulation, 32 soon went bust." This paper will show that information is wrong by a factor of almost four; it does so by identifying and listing 129 "startup" airlines that inaugurated interstate scheduled passenger service with jet aircraft. Clearly, it is past time to publish a definitive list of startup airlines that entered the industry following the implementation of deregulation in late 1978, both to promote accurate reporting and to facilitate future research. The purpose of this paper is to provide such a list. Furthermore, it will identify which of those startup airlines emerged from existing airlines that the CAB had prohibited from providing interstate scheduled passenger service with large aircraft prior to 1978 – such as the former supplemental, air cargo, **intra**state and commuter carriers – and which were newly organized after deregulation. Finally, it also identifies those startup scheduled passenger airlines that operated independently of all other carriers and those which were affiliated with larger carriers.

One requirement for a new carrier to obtain an operating certificate under the much-reduced criteria of the *Airline Deregulation Act* has been for it to report traffic, financial and operating data on Form 41 or Form 298 schedules. Each carrier's data were then compiled and published -- initially by the CAB to 1984, and then by the Department of Transportation's Bureau of Transportation Statistics, Office of Airline Information. A few startup airlines may have never actually inaugurated operations, or have been so short-lived that they failed to file any reports before they disappeared. However, the great majority did file for varying periods. The carrier information in this paper is obtained from those filings. This means that not only did the carriers listed actually provide service, but also that consistent traffic and financial data are available to evaluate the performance of each carrier over all or most of its operating life.

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INTRODUCTION

2003 marked the end of a quarter century of airline deregulation following the adoption of the *Airline Deregulation Act of 1978 [92 Stat. 1705]* on October 24, 1978. The coming and going of many "startup" carriers have been noted by the media and in research reports, but incorrect total numbers of carriers have been noted in many of these sources. One glaring example of misreporting appeared in the *Economist* (July 10, 2004 p. 59), which contained the following statement regarding "America's airlines": "Of the 34 newcomers created after deregulation, 32 soon went bust." This paper will demonstrate that this number understates by a factor of almost four the total number of U.S. startup carriers that inaugurated interstate scheduled passenger service with jet aircraft. It does so simply by listing the 129 startup carriers that entered the industry following October 1978. Hopefully this will promote accurate reporting as well as facilitate research in the future.

ORIGINAL AIRLINES

One result of the economic regulation of U.S. airlines by the Civil Aeronautics Board (CAB) between 1938 and 1978 was the severe limitation on the entry of airlines into interstate **trunk, international or territorial** scheduled passenger services. Twenty-three of these "original" airlines received certificates of public convenience and necessity effective August 22, 1938 under the "grandfather" provisions of the *Civil Aeronautics Act of 1938 [52 Stat 973] Sec.401 (e)(1).*[1] From then through 1978 just four other airlines received comparable certificates for long-haul operations, all for international service.[2] No certificates for domestic interstate trunk service were issued after 1938 despite the fact that between 1950 and 1974 the CAB received 79 applications for permission to offer such service from firms outside the domestic scheduled passenger industry, most of which were dismissed without hearing.[3] As shown in Appendix A, by 1978, only eleven of the original trunk/international carriers remained in service, the others having been merged into the surviving certificated carriers.[4] All of these carriers operated only jet/turbojet aircraft by 1978.

Even though the CAB authorized only four new international carriers (and no new domestic trunk carriers) during its 40 years of full regulation, between 1942 and 1950 it did authorize entry by a series of small carriers consisting of 21 **local service** and 9 **Intra-Alaska** airlines, plus one **Intra-Hawaii** airline.[5] In addition, three more Intra-Alaska carriers were certificated in 1959, 1960 and 1976, bringing the total Intra-Alaska carriers to 12.[6] As the names of their categories imply, these carriers were limited to short-haul services between small towns and nearby cities, or within Alaska and Hawaii. Initially, none of these carriers was allowed to provide long-haul, trunk-type interstate service between larger cities. Instead, each carrier was awarded mainly monopoly routes for largely subsidized regional service and was protected by the CAB from entry by new airlines. Two of the Intra-Alaska carriers were authorized to fly to the "Lower 48 States" in 1951,[7] and, over time the local service carriers worked to reduce their various operating restrictions and to be allowed to operate larger aircraft.[8] By the 1978, eight local service, five Alaskan and the two Hawaiian carriers survived; with all but three small Intra-Alaska carriers operating at least some two-engine jet aircraft. Again, the attrition was via mergers, except for four local service carriers whose initial temporary operating certificates were not renewed.[9]

At the time the *Airline Deregulation Act* was adopted, the original certificated scheduled passenger carriers had operated for 40 years within the following regulatory environment with regards to entry: first, they were the only airlines authorized to operate large aircraft in scheduled **inter**state or international passenger service and; second, the entry of new airlines into each category was nonexistent or very limited after the initial period of entry for each category. This was due to the CAB's extremely high standards of "public convenience and necessity" and to its procedural practices which prevented many applications from even being heard.

Because of these CAB policies and because substantial exit did occur through mergers, by the end of 1978 only 26 of the 61 original certificated carriers remained in existence, 23 of which operated jet aircraft -- eleven trunk/international, eight local service, two Alaskan and two Hawaiian. Appendix A lists these 23 carriers and shows that only five of the eleven trunk/international carriers were still operating in 2003. This included United, which was operating under Chapter 11 bankruptcy at the end of 2003. Of the eight local service carriers, only US Airways remained, but it had recently emerged from Chapter 11 bankruptcy and was to reenter Chapter 11 bankruptcy for a second time in 2004.[10] The four Alaskan/Hawaiian carriers did relatively better. One airline (Wien) had gone bankrupt in 1984, leaving three still in business, with Hawaiian operating under Chapter 11 bankruptcy in 2003.[11] In total, only nine (39 percent) of the 23 original certificated carriers operating jet aircraft in 1978 remained after 25 years of deregulation.[12] Fourteen were no longer in business.

The above analysis shows that most of the original certificated carriers did not survive under deregulation, but the analysis also shows that their survival wasn't too good under regulation as well. Twenty-six airlines in 1978 out of the 61 original carriers means that only 43 percent survived after 40 years of regulation (23 jet operators plus the three Intra-Alaska non-jet operators).[13] What was different between the two periods was not the relative extent of exit, but how it occurred. Under regulation, so long as a carrier had a CAB operating certificate, exit was via merger.[14] In contrast, under deregulation, while ten of the original carriers were merged into or acquired by other original carriers through 2003, the other four original carriers (Braniff, Eastern, Pan Am and Wien) terminated service through bankruptcy.[15] This was a first for the industry.

Between 1979 and 1984 the CAB continued to be responsible for approving mergers prior to its disappearance on December 31, 1984 under the "sunset" provision of the 1978 Act[16] During these years it approved the Pan Am/National, North Central/Southern, Republic/Hughes Air West and Continental/Texas International mergers.[17] Obviously, if full economic regulation and mergers had both continued beyond 1984, eventually there would have been very few carriers left in the industry. This could well have raised the issue of allowing the entry of new trunk-type carriers. The 1978 Act solved that potential regulatory problem simply by lowering entry barriers to new airlines wishing to inaugurate scheduled passenger service with large jet aircraft. This brings us to the "startup" airlines of the post-1978 era.

STARTUP AIRLINES

The *Airline Deregulation Act* reduced the largely prohibitive barrier to entry of "public convenience and necessity" to the much lower and more objective barrier of "fit, willing, and able." In essence, all an applicant had to do to obtain a certificate to operate large jet aircraft in scheduled passenger service was to demonstrate its financial and operational competence. In addition, it had to conform to the statutory requirement to submit monthly traffic reports, quarterly financial reports and certain aircraft and personnel data on DOT Forms 41.[18] This latter requirement is important to this paper because it was possible for a startup carrier to obtain an operating certificate but then either not inaugurate service, or operate so briefly that it didn't file any Form 41 reports with the DOT's Office of Airline Information (OAI) in the Bureau of Transportation Statistics (BTS). **Thus, to be listed and counted in this paper, a startup carrier had both to obtain a certificate to operate domestic interstate, international or territorial scheduled passenger service with large jet aircraft AND to file traffic and financial data on Forms 41 reports with the OAI to demonstrate it actually provided such service.**

It is important to understand that there were additional CAB-regulated airlines operating in 1978 which were not allowed to provide scheduled passenger service with large aircraft. After years of contention, the surviving post-World War II nonscheduled airlines had been organized into either the **supplemental** (charter) or scheduled **cargo** categories. In addition, it happened that the 1938 Act did not provide the CAB with the authority to bar **intra**state carriers from operating scheduled passenger service with large aircraft solely within individual states.[19] Finally the CAB exempted **air taxi/commuter** carriers from regulation providing they operated small aircraft carrying no more than 30 passengers or a 7,500-pound payload, and did not serve city-pairs where certificated carriers operated.[20]

The first startup carriers to inaugurate and report service did so in 1979. Not surprisingly, they came mainly from these existing, but restricted airlines – four **intra**state carriers that expanded to start **inter**state service, three supplemental and two cargo carriers that added scheduled passenger service, and two new independent carriers (including Midway which applied for a certificate prior to the enactment of the 1978 Act and whose application was approved by the CAB effective September 9, 1978).[21] All of these airlines operated large jet aircraft in domestic interstate and/or international service. They are identified in Appendix B. Together with the 23 original carriers, these eleven startup carriers yielded a total of 34 airlines operating jet aircraft during all or part of 1979.

Appendix B lists a total of 129 startup carriers that operated between 1979 and 2003. In addition to the existing four former intrastate and six former supplemental/cargo carriers, there were 96 **independent** startup carriers (almost 75 percent of the total) specifically organized at various times to take advantage of the reduced barriers to entry into the mainstream scheduled passenger industry. Finally, 23 **affiliated** airlines also operated during these years. Nineteen of these (excluding Aspen, Continental Micronesia, Presidential and US Air Shuttle) were former commuter carriers that joined the ranks of startup carriers when they introduced regional jet aircraft having 35 to 85 or more seats (such as the ERJ-135/145, CRJ-200/700 and BAe-146). Most of these affiliated carriers transported passengers from smaller communities to hub airports under various contracts with one or more large carriers – mainly original carriers, but including two independent startup carriers (America West and Midwest Airlines). Appendix B shows the entry of commuter carriers into jet operations began in 1983 and 1984, but expanded rapidly starting in 1993 with the introduction of the CRJ and, somewhat later, the ERJ jets.

It is beyond the scope of this paper to describe all of the startup carriers. Rather, its primary purpose is simply to list the 129 such carriers operating during the first 25 years of deregulation, and this is accomplished in Appendix B.[22] In addition to this listing, Appendix B also records the calendar years during which each carrier operated <u>and</u> filed one or more monthly traffic reports with the DOT. This makes it is possible to determine how many were short-lived and how many had substantial periods of operation between 1979 and 2003. To facilitate analysis, each carrier's period of operation is specified in one of nine periods – the first includes all the carriers that inaugurated and terminated service within one calendar year, while the longer-lived carriers are assigned to one of the subsequent eight periods, each having a three-year interval.

Appendix B shows that the majority of startup carriers had short lives as interstate/international scheduled passenger airlines. Eighteen carriers operated entirely within one calendar year, while 55 lasted 2-4 years. Thus, out of the129 startup carriers, 73 (57 percent) operated four years or less, 39 operated from five to ten years, and only 17 operated for more than a decade. Among the 96 independents, 65 (68 percent) terminated service within the first four years, 21 more operated five to ten years, and only ten operated for more than ten years. One reason so many of the 129 startup carriers had short lives is that 44 (over one-third) inaugurated service after 1993. These include the following nine of the 15 independent carriers that provided service in 2003: Air Tran, Allegiant, Frontier-2, JetBlue, North American, Pan Am-3, Sun Country, Sunworld, and USA 3000. In addition, 14 out of 18 affiliated carriers operating at the end of 2003 introduced jet aircraft after 1993. With regards to potential long-lived carriers, since eleven startup carriers inaugurated service in 1979 that is the maximum number that could have operated for the full 25 years. Only one, Southwest, managed to do so. However, four other carriers operated 20 to 22 years by 2003 – America West, Midwest, Air Wisconsin and Horizon.

The large number of original and startup airlines that left the industry between 1979 and 2003 might lead some to think the U.S. airline industry was chaotic and that fewer airlines were in operation at the end of 25 years of deregulation than at the start. Neither situation occurred. While some passengers were doubtless inconvenienced and may have lost the price of a ticket when airlines went out of business unexpectedly, the fact is that large amounts of service were available at all times. In 1978, the system-scheduled capacity of all passenger airlines operating jet aircraft totaled 375 billion available seat-miles (ASM), 337 billion of which (90 percent) were produced by the eleven trunk carriers.[23] In 2000 (the peak year before the adverse impact of 9/11), system scheduled ASM for the industry totaled 966 billion, with 708 billion (73 percent) being produced by the five remaining trunk carriers.[24] This was an increase of 187 percent for the industry and 110 percent for all trunk carriers. Obviously, the reduction in the total number of trunk carriers meant the five surviving trunks grew much more than 110 percent. American, for example, grew 254 percent. However, as a group, the former trunk carriers lost 17 percentage-points in capacity share. This occurred even though system data include international operations where bilateral agreements provide original carriers with some protection from the entry of startup carriers. Appendix B also shows that, in contrast to the 23 original carriers operating jets in 1978, 34 original and startup carriers operated jets in 1979 and 43 operated during 2003. Overall, between 28 and 63 carriers operated jet aircraft in each of the intervening years.[25]

UNOFFICIAL NAMES

A number of unofficial names have been used since 1978 to differentiate the original airlines from the startup airlines. For example, "network," "hub-and-spoke," and "legacy" referred to the original trunk/international carriers, as well as the local service and Alaskan/Hawaiian carriers as they grew in size. In contrast, the startup airlines have been referred to as "upstart" or "low-cost" carriers. "Upstart," of course, has negative connotations and was probably used by those who favored the original carriers. "Low-cost," in contrast, while not pejorative, is not inclusive. A number of the startup carriers were organized to offer high-quality service that required high operating costs. Carriers such as Legend, McClain, MGM Grand and Ultrair are examples, but they tended to be short-lived. Midwest is another example, but it proved to be long-lived while providing all business-class service for much of its 20-year history. However, the recent reduction in demand for business-class service caused Midwest to inaugurate lower-cost (and lower-price) coach service in August 2003.[26] Finally, virtually all of the affiliated carriers were inherently high-cost operators due to their operating smaller propeller and regional jet aircraft. This paper has used the word "startup" to refer to the carriers inaugurating interstate/international scheduled passenger service with jet aircraft after 1978 because it is inclusive and is not pejorative. "Original" is also an inclusive, non-judgmental word which focuses on the fact that those carriers were generally among the earliest of the scheduled airlines operating large aircraft. As such, the CAB regulated them.

CONCLUSIONS

The main purpose of this paper is to provide an inclusive list of airlines that entered the U.S. interstate/international scheduled passenger industry with large jet aircraft following the adoption of the *Airline Deregulation Act of 1978*. The 129 carriers that entered the industry between 1979 and 2003 are listed in Appendix B. Based on years of research using the specified sources, it is believed that this list is inclusive and definitive (but see endnotes 11 and 22.)

This paper also demonstrates that entry into the interstate/international scheduled passenger industry with large aircraft was limited under the CAB's economic regulation. Indeed, entry into the dominant trunk category was nonexistent, while only four new carriers were allowed into the international category, two of which were very small and short-lived. Only in the new local service, Intra-Alaska and Intra-Hawaii categories were there significant entry, but those carriers were small and restricted and not until the last decade of regulation were they allowed to provide limited competition to domestic trunk carriers. The entry of the129 startup carriers between 1979 and 2003 provides evidence of just how restrictive CAB regulation was.

Substantial exit from the industry occurred under both environments. The main difference was that merger was the mode of exit under deregulation while, under deregulation, exit also occurred though, bankruptcies, simple business terminations and transfers to nonscheduled service. Despite the large numbers of carriers that ceased scheduled operations after 1978, during the succeeding 25 years the U.S. traveling public had an ample supply of scheduled passenger service and a larger number of airlines to supply it in a more competitive market structure.

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[1] These consisted of 19 domestic carriers (16 of which became trunks), three international, and one territorial carrier. U.S. Senate, Civil Aeronautics Board Practices and Procedures, Report of the Subcommittee on Administrative Practices and Procedures of the Committee of the Judiciary (1975), p. 216. Also, Civil Aeronautics Board, Handbook of Airline Statistics, 1962 ed. (October 1962), pp. 1-2, 331 and 481.

[2] These were American Export Airlines (7/12/40), South Pacific Air Lines (8/15/53), Samoan Airlines (4/9/54) and Trans Caribbean Airways (1/14/58). American Export was acquired by American Airlines (6/1/45) and later sold to Pan American (9/9/50); South Pacific operated from 1960 to 1963 before its route was awarded to Pan American 8/6/64); Samoan operated briefly during 1959-60 before its certificate ceased to be effective (6/23/64); and Trans Caribbean operated from 1958 to 1971 when it was merged into American Airlines (3/2/71). Civil Aeronautics Board, Airline Statistics Handbook (1946-1952), (no date), p.11; Handbook of Airline Statistics,-- 1961 ed. (December 1961) p. I-2; 1962 ed, (October 1962), pp. 481 and 488; 1973 ed. (March 1974), pp. 568-569.

[3] *Supra*, note 1, U.S. Senate, pp. 6-9 and 217-20. This failure to issue operating certificates to new carriers was inconsistent with statements by the sponsors of the Bill, Senators McCarran and Truman, as well as by the president

of the Air Transport Association, Colonel Gorrell, that new airlines would be allowed to provide such service (see U.S. Senate, pp. 80-81).

[4] For a analysis of mergers authorized by the CAB, see William A. Jordan, "Problems Stemming from Airline Mergers and Acquisitions," Transportation Journal, (Summer 1988), pp. 9-30.

[5] *Supra* note 1, Civil Aeronautics Board, pp. 1-2, 482-83 and 515-16; and U.S. Senate, pp. 221-22. Even though the CAB handbooks report that 21 Intra-Alaska carriers were certificated in 1948, the same publications show that no more than nine of these carriers ever reported certificated operations in any one calendar year -- see Civil Aeronautics Board, Handbook of Airline Statistics, 1973 ed. (March 1974), p. 9.

[6] Civil Aeronautics Board, Handbook of Airline Statistics, 1961 ed. (December 1961), pp. I-1 and 2; and Supplement to the Handbook of Airline Statistics (December 1977), p. 1. These three additional carriers did not cause the total Intra-Alaska carriers to exceed the total of nine achieved in 1950. Therefore, it appears that the actual number of Intra-Alaska carriers certificated and operating is 12, not 21 or 24(see note 5). Seven of these12 carriers merged with other airlines between 1956 and 1973. Civil Aeronautics Board, Handbook of Airline Statistics, 1973 ed. (March 1974), pp. 568-69; and Handbook of Airline Statistics 1975 Supplement (November 1975), p. 177.

[7] Alaska Airlines and Pacific Northern Airlines. Civil Aeronautics Board, Handbook of Airline Statistics, 1949-56, (June 1960), pp. 47 & 58. Two very small "other" carriers (Aspen and Wright) also obtained CAB operating certificates in 1967 and 1972 for short-haul service between Denver and Aspen, and between Detroit and Cleveland lakefront airports (pp. 1-2). Also, two small "regional" carriers (Air Midwest and Air New England) were certificated in 1975-76. None of these four carriers operated jet aircraft prior to 1979. Civil Aeronautics Board, Supplement to the Handbook of Airline Statistics (December 1977), p. 1.

[8] Subpart M of Part 302 of the CAB's regulations was adopted on January 15, 1968. It provided for expedited procedures for modifying local service carriers' certificate restrictions. Civil Aeronautics Board, Handbook of Airline Statistics, 1973 ed. (March 1974), p. 524.

[9] *Ibid*, pp. 568-70; and *Supra* note 4.

[10] Aviation Week & Space Technology (September 20, 2004), pp. 39-41.

[11] Aviation Week & Space Technology: Wien -- (December 3, 1984), p. 31; Hawaiian – (March 31, 2003), pp.29-30. Brief news articles about a "New Wien" were published in AW&ST, (March 25, 1985), p. 31, (November. 4, 1985), p. 30 and (December 23, 1985), p. 35. That company did not file any traffic or financial reports with the DOT and, therefore, is not included in this paper and is not listed in Appendix B. The Dec. 1985 article reported that "New Wien" had been shut down by DOT order and entered Chapter 11 bankruptcy in early November.

[12] Beginning with January 1981, the CAB changed the certificated carrier categories to "majors, nationals, and regionals (large, medium or small)" with each carrier being assigned to a category depending on the size of its annual total transportation revenues -- majors included carriers with total transportation revenues exceeding one billion dollars, nationals from 100 million to one billion, and regionals various amounts under 100 million dollars. (Civil Aeronautics Board, Air Carrier Traffic Statistics, (December 31, 1981) p. *ii.* The then surviving trunk/international carriers all became major carriers and many of the other original carriers progressed into that category as they expanded through internal growth and/or merger, and as inflation served to increase revenues in general. This paper, however, continues to use the original CAB categories (trunk/international, local service and Alaskan/Hawaiian) to show the attrition after 1978 among the original carriers in each historical category.

[13] The two "other" and two "regional" carriers are not included in this total nor in the calculation.

[14] *Supra* note 4.

[15] Braniff – "Paul K. Martin, editor, The Airline Handbook, 1983-84 ed. (Cranston, RI, December 1983), p. 149.; Eastern -- Aviation Week & Space Technology (January 28, 1991), pp. 64-65; Pan American – dotlibrary.dot.gov/ historian/chronology.htm.; Wien – Aviation Week & Space Technology (December 3, 1984), p. 31.

[16] Sec. 1601 [92 *Stat.1744*]

[17] *Supra.* note 4, pp. 10-15.

[18] Sec. 407 [*72 Stat.766.*] Commuter carriers had a similar requirement to submit much more limited traffic and Financial reports on DOT Forms 298.

[19] William A. Jordan, Airline Regulation in America: Effects and Imperfections (Baltimore: The Johns Hopkins Press, 1970), p. 80.

[20] *Supra* note 1, 1973 ed., pp. 1-2 for supplemental and cargo carriers; and pp. 515 and 530 for commuters. The inability of the CAB to regulate California intrastate carriers is describe in, William A. Jordan, Airline Regulation in America, Effects and Imperfections (Baltimore: The Johns Hopkins Press, 1970), pp. 15-17. The *Airline Deregulation Act* also liberalized the exemption restriction on aircraft size for commuter carriers from 30 passengers to 55 passengers, which the CAB soon extended to 60 passengers – Section 416 (b)(4) [*92 Stat 1731*]. As will be shown, the introduction of 35 to 50-seat regional jet aircraft in 1993 brought commuter carriers into the category of startup carriers operating large aircraft – large according to the definition in effect in 1972-78.
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[21] Civil Aeronautics Board, Supplement to the Handbook of Airline Statistics, (November, 1979), p. 2. This source also lists 13 carriers that received certificates after October 24, 1978. None reported operations in 1978.

[22] One possible startup carrier is not listed in Appendix B under the affiliated carrier category. That is Pace Airlines which, during 2003 and on into 2004, operated scheduled passenger service for Air Tran between Atlanta and Los Angeles. Pace's 737-800 aircraft were able to operate nonstop between these two cities, something Air Tran's 717 aircraft were unable to do on a regular basis. Air Tran provided the marketing and passenger/ground handling for this service, while Pace simply provided the aircraft and crew. From Pace's perspective, this limited arrangement appears to be more like a wet lease or public charter than scheduled service by an affiliated carrier. However, OAI policy required Pace to report this traffic under scheduled service, and also required Air Tran to report the same traffic as part of its totals. If the reader decides Pace's service was actually scheduled, then the total number of startup carriers should be increased to 130, with the affiliated category being raised to 24. At the same time, one should exclude Pace's scheduled traffic from industry and startup carrier totals to prevent double counting since this traffic is also included in Air Tran's data. (Discussion with OAI personnel. July 6, 2004).

[23] *Supra* note 21, p. 7. Also, Air California, Air Florida, PSA and Southwest, Annual Reports, 1978 (various pages).

[24] U.S. Department of Transportation, Air Carrier Traffic Statistics (December 2001/2000), various pages; and Air Carrier Industry Scheduled Service Traffic Statistics (Fourth Quarter, December 2000/1999), revised edition, various pages.

[25] William A. Jordan, "Airline Entry, Exit and Market Shares Following Deregulation," Transportation Research Forum, Proceedings – 37th Annual Meeting (October, 1995), p. 225. Also, *Ibid.*, (December 1995-2002).

[26] Aviation Week & Space Technology (June 2, 2003), p. 15.

APPENDIX A

ORIGINAL CERTIFICATED CARRIERS OPERATING JET AIRCRAFT IN SCHEDULED PASSENGER SERVICE
U.S. AIRLINE ENTRY AND EXIT, 1979-2003

	Operating After 1978		Years of Operation Between 1979 and 2003									Operating in	
Airline	Dates	Years	1	2-4	5-7	8-10	11-13	14-16	17-19	20-22	23-25	1979	2003
Trunks/International													
American	1979-2003+	25									1	X	X
Braniff	1979-1982	4		1								X	
Continental	1979-2003+	25									1	X	X
Delta	1979-2003+	25									1	X	X
Eastern	1979-1991	13					1					X	
National	1979	1	1									X	
Northwest	1979-2003+	25									1	X	X
Pan American	1979-1991	13					1					X	
Trans World	1979-2001	23									1	X	
United	1979-2003+	25									1	X	X
Western	1979-1987	9				1						X	
Total Trunks	11											11	5
Local Service													
Frontier	1979-1986	8				1						X	
Ozark	1979-1986	8				1						X	
Piedmont	1979-1989	11					1					X	
Hughes Air West	1979-1980	2		1								X	
Republic	1979-1986	8				1						X	
Southern	1979	1	1									X	
Texas International.	1979-1982	4		1								X	
USAirways/Allegheny	1979-2003+	25									1	X	X
Total Local Service	8											8	1
Alaskan/Hawaiian													
Alaska	1979-2003+	25									1	X	X
Wien	1979-1984	6			1							X	
Aloha	1979-2003+	25									1	X	X
Hawaiian	1979-2003+	25									1	X	X
Total AK/HI	4											4	3
Total Original	23		2	3	1	4	3				10	23	9

Note: +Carrier operating beyond 2003.

Sources: U.S. DOT, Bureau of Transportation Statistics, Office of Airline Information (including previous CAB editions):
Air Carrier Financial Statistics, (various editions, 1979-2003).
Air Carrier Traffic Statistics, (various editions, 1979-2003).

APPENDIX B

U.S. AIRLINE ENTRY AND EXIT, 1979-2003
STARTUP CARRIERS OPERATING JET AIRCRAFT IN SCHEDULED PASSENGER SERVICE

	Operating After 1978		Years of Operation Between 1979 and 2003									Operating in	
Airline	Dates	Years	1	2-4	5-7	8-10	11-13	14-16	17-19	20-22	23-25	1979	2003
Intrastate													
Air Cal	1979-1987	9				1						X	
Air Florida	1979-1984	6			1							X	
PSA	1979-1988	10				1						X	
Southwest	1979-2003+	25									1	X	X
Total Intrastate	4				1	2					1	4	1
Supplemental/Cargo													
Capitol	1979-1984	6			1							X	
Evergreen	1980-1981	2		1									
Flying Tigers	1979-1983	2		1								X	
Seaboard World	1979	1	1									X	
Transamerica	1979-1985	7			1							X	
World	79-86/95-96	10				1						X	
Total Supple./Cargo	6		1	2	2	1						5	0
Independent													
Accessair	1999	1	1										
Air America/Total	1985-1989	5			1								
Air Atlanta	1984-1987	4		1									
Air Hawaii	1985-1986	2		1									
Air Illinois*	1982-1984	3		1									
Air One	1983-1984	2		1									
Air South	1994-1997	4		1									
Air 21	1995-1996	2		1									
Airpac*	1984-1985	2		1									
AirTran	1994-2003+	10				1							X
All Star	1985	1	1										
Allegiant	2000-2003+	4		1									X
Altair*	1980-1982	3		1									
America West	1983-2003+	21								1			X
American Int'l. *	1982-1984	3		1									
Arrow Air	1982-1986	5			1								
ATA/Amer. Trans Air	1986-2003+	18							1				X
Atlantic Gulf	1984-1986	3		1									
Best	1982-1985	4		1									
Braniff-2	1984-1989	6			1								
Braniff-3	1991-1992	2		1									
Britt*	1984-1987	4		1									

APPENDIX B (Continued)

Airline	Operating After 1978 Dates	Operating After 1978 Years	Years of Operation Between 1979 and 2003: 1	2-4	5-7	8-10	11-13	14-16	17-19	20-22	23-25	Operating in 1979	Operating in 2003
Independent (continued)													
Carnival	1989-1998	10				1							
Cascade*	1984-1985	2		1									
Casino Express	1991-2003+	13					1						X
Challenge Air Trans.	1985-1986	2		1									
Challenge Air Int'l.	1986-1987	2		1									
Discovery	1990	1	1										
Eastwind	1995-1999	5			1								
Emerald*	82-84/1989	4		1									
Empire*	1980-1986	7			1								
Florida Express	1984-1989	6			1								
Frontier-2	1994-2003+	10				1							X
Frontier Horizon/Skybus	1984-1986	3		1									
Grand	1994-1995	2		1									
Great American	1994-1996	3		1									
Guy America	1981-1983	3		1									
Hawaii Express	1982-1983	2		1									
Jet America	1981-1987	7			1								
Jet Charter	1985	1	1										
JetBlue	2000-2003+	4		1									X
JetTrain	1996	1	1										
Key	1992	1	1										
Kiwi	1992-1999	8				1							
Laker	1996-1997	2		1									
Legend	2000	1	1										
Markair*	1984-1995	12					1						
McClain	1986-1987	2		1									
MGM Grand	87-92/94-95	8				1							
Mid Pacific*	1985-1987	3		1									
Midway	1979-1991	13					1					X	
Midway-2	1993-2003	11					1						X
Midway Express	1984-1985	2		1									
Midwest Exp./Airlines	1984-2003+	20								1			X
Morris Air	1993-1994	2		1									
National-2/Private Jet	1994-1995	2		1									
National-3	1999-2002	4		1									
Nations Air	95-96/98-99	4		1									
New York Air	1980-1986	7			1								
North American	2000-2003+	4		1									X
Northeastern	1982-1985	4		1									

APPENDIX B (Continued)

Airline	Operating After 1978		Years of Operation Between 1979 and 2003									Operating in	
	Dates	Years	1	2-4	5-7	8-10	11-13	14-16	17-19	20-22	23-25	1979	2003
Independent (continued)													
Ozark-2/Great Plains	2000-2001	2		1									
Pacific East	1982-1984	3		1									
Pacific Express	1982-1984	3		1									
Pacific Interstate	1984-1985	2		1									
Pan Am-2	1997-1998	2		1									
Pan Am-3	2000-2003+	4		1									X
People Express	1981-1986	6			1								
Pilgrim*	1984-1987	4		1									
Prestige/Paradise	1995-1997	3		1									
Pride Air	1985	1	1										
Pro Air	1997-2000	4		1									
Reeve*	1984-2000	17							1				
Regent Air	1983-1985	3		1									
Reno Air	1992-1999	8				1							
Royal West	1986-1987	2		1									
Royale*	1984	1	1										
Samoa	1985	1	1										
Skystar	1986	1	1										
South Pacific	1981-1986	6			1								
Southeast	1979	1	1									X	
Spirit	1992-2003+	12					1						X
Sun Coast	1987	1	1										
Sun Country	1999-2003+	5			1								X
Sunworld	1996-2003+	8				1							X
Tower Air	1983-2000	18							1				
Transtar/Muse	1981-1987	7			1								
Tristar	1995-1996	2		1									
Trump Shuttle	1989-1992	4		1									
Ultrair	1993-1994	2		1									
US Africa (Int'l.)	1994-1995	2		1									
USA 3000	2003+	1	1										X
Valujet	1993-1998	6			1								
Vanguard	1994-2002	9				1							
Western Pacific	1995-1998	4		1									
Worldwide/Leisure	1994	1	1										
Total Independent	96		15	50	13	8	5	0	3	2	0	2	15

APPENDIX B (Continued)

Airline	Operating After 1978		Years of Operation Between 1979 and 2003									Operating in	
	Dates	Years	1	2-4	5-7	8-10	11-13	14-16	17-19	20-22	23-25	1979	2003
Affiliated													
Air Wisconsin*	1983-2003+	21								1			X
American Eagle*	1998-2003+	6			1								X
Aspen *	1984-1991	8				1							
Atlantic Coast*	1997-2003+	7			1								X
Atlantic Southeast*	1996-2003+	8				1							X
Business Express*	1989-1996	8				1							
Chautauqua*	1998-2003+	6			1								X
Comair*	1993-2003+	11					1						X
Cont. Exp./Express Jet*	1997-2003+	7			1								X
Continental Micronesia	1993-2003+	11					1						X
Freedom Air	2002-2003+	2		1									X
Horizon Air*	1984-2003+	20								1			X
Mesa*	1995-2003+	9				1							X
Mesaba*	1997-2003+	7			1								X
Pinnacle/Express I	2003+	1	1										X
Presidential	1985-1989	5		1									
PSA-2.	2003+	1	1										X
Republic-2 (Holdings)	2002-2003+	2		1									X
Skyway/Astral*	1999-2003+	5			1								X
Sky West*	1994-2003+	10				1							X
Trans States*	1998-2003+	6			1								X
USAir Shuttle	1992-2000	9				1							
Westair*	1988-1993	6			1								
Total Affiliated	23		2	3	8	6	2	0	0	2	0	0	18
Total Startup Carriers	129		18	55	24	17	7	0	3	4	1	11	34
Cumulative Total			18	73	97	114	121	121	124	128	129		
Total of Original and Startup Carriers Operating in 1979 and 2003												34	43

Note: *Carrier operated propeller aircraft, as well as jet aircraft, during all or part of these years.
+Carrier operating beyond 2003.

Sources: U.S. DOT, Bureau of Transportation Statistics, Office of Airline Information (including previous CAB editions):
Air Carrier Financial Statistics, (various editions, 1979-2003).
Air Carrier Traffic Statistics, (various editions, 1979-2003).
Air Carrier Industry Scheduled Service Traffic Statistics, (various editions, 1979-2003)
Forms 41 and Forms 298 for individual carriers (various reports, 1979-2003).
Appendix A.