

# TWENTY YEARS OF AIRLINE DEREGULATION: THE IMPACT ON OUTLYING SMALL COMMUNITIES

J. Richard Jones  
Trinity University

Many rural communities over the years have had to endure reduced levels of scheduled transportation services to the point that some have indeed experienced a cessation of services. Accompanying the deregulation of airlines in 1978 was the expressed fear that transportation services would continue to spiral downward and various communities would lose their population bases. This study investigates the two decades of airline deregulation and the impact that that 1978 legislation has had on small communities that are situated 100 air miles or more from any hub airport. Chief among the findings are: (1) that service levels have indeed deteriorated as indicated by the fact that over one-quarter of the non hubs lost all service, (2) of those locations that retained some service, nearly two-thirds experienced reduced levels of service, and (3) the overall pattern of population growth remained approximately the same whether service was eliminated, reduced, or increased.

## INTRODUCTION

Transportation has long been an area of interest for economists, geographers, logisticians, marketers, sociologists and other students of economic and social development. Indeed, from very early on in the development of this country (as well as others for that matter), transportation has facilitated the movement necessary for some geographical points to flourish as production centers and distribution centers. In addition to sustaining individual consumers who now make their livelihood in those locations, the transportation lifeline connects approximately 20% of the Nation's consumers who live in locations that are depicted as rural. While the urbanization of America has been inexorably

proceeding from 5% in 1790 to 25% just after the Civil War to 64% following WWII to 75% in 1990, the information "revolution" is providing the impetus to alter this trend. The question that arises is, can the transportation system meet the needs of these changing times?

Over the decades there have been few who have argued that the U.S. transportation system is not the best in the world. While it is still true that the U.S. system is without equal on an overall basis, there are fears that the quality and quantity of transportation to and from this country's rural areas is on a general decline. Rural transportation, as true with other aspects of rural life, must be considered part of a broad policy base. Numerous policy measures have

been proposed to alleviate the pressures on our urban areas; measures involving jobs creation, energy availability, etc. Although certain measures have been suggested to improve our rural transportation system as well, it appears nonetheless that our transport alternatives may be reducing the attractiveness of those towns and villages situated substantial distances from cities. On the one hand, while obtaining goods may be more expensive in outlying areas, this is clearly an economic trade-off made by those living there. On the other hand however, public transportation alternatives to and from small towns are becoming more scarce almost regardless of one's ability to pay.

### **PURPOSE**

The purpose of this study is to investigate the impact that airline deregulation has had on small communities in the U.S. in the 20 years that the industry has had economic freedom. While the passage of the Airline Deregulation Act of 1978 (PL 95-204) on October 24, 1978 may be best remembered for the removal of pricing, entry and exit restrictions as they applied to the major domestic trunklines (now major carriers) such as American, Delta and United, the same statute created a need for commuter airline service (now referred to as regional airlines). The question addressed here is how well the small communities are being served twenty years after the fact. Inasmuch as "the national transportation policy statement, a preamble to the Airline Deregulation Act of 1978, specifically calls for a comprehensive and convenient system of continuous scheduled airline service for small communities and isolated areas," (Davis and Dillard 1982) one would expect service in 1998 to be rather like that of 1978.

### **BACKGROUND**

Many scholars consider the transportation and rural community equation to be of crisis proportion. Reich (1987, p.38) envisions this

country becoming a bicoastal economy and "if rural America is to be revived, rural transportation will have to become more accessible and efficient." The difficulties associated with rural life and transportation upheavals are well documented (Kihl 1988, Schwab 1987). In a most descriptive fashion, Shultz (1987) envisions (as an outgrowth of deregulation) "an increasing number of small communities undoubtedly will shrivel like corn in a drought."

Airline deregulation as it has involved small communities has attracted the attention of many researchers. Several have focused on the federal subsidy aspect that Congress built into the 1978 deregulation legislation which was supposed to allow communities a decade (but still continues) to prepare for the possible impact of deregulation (Cunningham and Eckard 1987, Vellenga and Vellenga 1986, Addus 1985 and 1984, J.R. Meyer 1981). Others have suggested that state and local governments play a prominent role in providing air service to small communities (Williamson, Cunningham and Singer 1982). While interest concerning deregulation and its impact on small communities has lagged behind that focusing upon the implications regarding major cities and major carriers, some works have been put forth (Jones and Cocks 1985, Stephenson and Beier 1981).

### **PUBLIC TRANSPORTATION DEMISE**

A transportation system is generally inclusive of several modes: rail, motor (auto, truck, and bus), air, water, and pipeline. Insofar as passenger travel is concerned, there are fewer options and the number of those options is becoming smaller. Only the private automobile continues as a viable option for many individuals who live in small outlying communities. Notwithstanding the ubiquitous automobile, in some instances weather makes this a difficult option. Moreover, for certain individuals, their age, medical condition and/or the total cost of operating an auto preclude this option.

From the standpoint of movement to and from small communities, rail service has become in the last few decades nearly nonexistent, while water transportation has hardly ever been an option for most communities. Bus service, while often viewed as the backbone for rural common carrier service, is rapidly being curtailed. As one news magazine states "For many Americans who live in small towns, when there's no Greyhound, there's no exit" i.e., from the community (Gallagher 1990). The thought that "there is always the Greyhound bus"...that will "take you to obscure places you call home and away from places you never want to see again...when you've got no car, when the airfare is too high (or there's no airport at all), when the railroad tracks have long gone to weed" (Gallagher 1990) rings somewhat hollow these days. Greyhound, while serving 9,500 communities in 1990 (Gallagher 1990), is providing service to only 2,600 destinations today (Greyhound 1998).

Air transportation at one time certainly was considered the answer to overcoming major distances associated with life in smaller communities. With the deregulation of the airline industry, that vision has been altered significantly as more and more small communities face the difficulties of reduced service or worse yet an abandonment of service. The U.S. Department of Transportation contends that General Aviation (GA) aircraft also provide access to intercity (or town) movement via the many thousands of airfields where scheduled service is now available. DOT's figures show the number of airports growing from 6,881 to 18,224 during the period from 1960 to 1995. Further, if one possessed the resources to own and maintain a general aviation aircraft, only 667 of those airports are FAA certificated and but 446 of those airports have FAA or FAA contracted towers (U.S. DOT, 1997). Consequently, while marketers are fond of referencing the ever mobile consumer, it is difficult to maintain that general aviation is the answer to the small community transportation problem.

## AIRPORT CLASSIFICATION SYSTEM

Over the years the Federal Aviation Administration (FAA) has developed a system of classifying airports predicated on the volume of passenger activity at each location in relation to the total of domestic passenger activity. In summary, that system is as follows:

**Large Hubs:** Enplane 1.00% or more of the Nation's passengers. Examples are Chicago, San Francisco and Washington D.C.

**Medium Hubs:** Enplane .250% to .999% of the Nation's passengers. Examples are Buffalo, Indianapolis and Salt Lake City.

**Small Hubs:** Enplane .05% to .249% of the Nation's passengers. Examples are Colorado Springs, Knoxville, and Shreveport.

**Non-Hubs:** Enplane fewer than .05% of the Nation's passengers. Examples are Bozeman, MT, Macon, GA, and Williamsport, PA.

According to the U. S. Department of Transportation, in 1995, there were 29 large hubs (67 airports), 33 medium hubs (59 airports), 58 small hubs (73 airports) and 561 non hubs (593 airports). (U.S. DOT 1997)

Given the definitions cited above, it is rather understandable that most, if not all, airports serving smaller communities will fall into the non-hub airport category. It should be noted however, that not all of the cities and towns served by a non hub airport are necessarily sparsely populated. Indeed, non hub designations include many in the size category of places such as Glasgow, MT (population 3,656) and Hancock, MI (population 4,565) while many others reflect the size of Pocatello, ID (population 51,344) and Huntington, WV (population 53,941).

## RESEARCH DESIGN

In October 1978, the FAA data indicated that there were 503 non-hub airports in the 48 contiguous states and commercial service was provided at 485 non-hubs or 96.4% of the total (CAB 1981). One of the recurring themes heard throughout the debate regarding the wisdom of deregulating the Nation's airlines centered upon the service that would be extended small outlying cities and towns. Opponents of deregulation early on warned that the result would be "less service ... particularly on the low-density routes serving small communities" (J.R. Meyer et al. 1981). Indeed, this prophecy seems to have been borne out in the score of years since deregulation was implemented. As of January 1, 1998, after allowing for the 20 new non hubs that have begun to receive service since 1978, only 320 non-hub airports were receiving scheduled commercial air service. (RAA 1998)

Obviously some non-hub airports are located relatively short distances from large, medium or small hub airports. Therefore as the result of their proximity to a hub airport, some locations have experienced relatively little dislocation since the discontinuation of service occurred. For example, Benton Harbor, Michigan is 20 air miles (and 30 road miles) from South Bend Indiana (a small hub airport), and 70 air miles (and 91 road miles) to Chicago (a large hub airport). Nonetheless, there are other non-hub airports that are located a days drive from any hub airport. Butte, Montana, for example, is 192 air miles (224 road miles) from Billings, MT (the nearest small hub airport), 266 air miles (318 road miles) from Spokane, (the nearest medium hub airport) and 477 air miles (600 road miles) from Seattle (the nearest large hub airport). Unquestionably, the further a small community is located from any hub airport, the greater the hardship if service is eliminated and, in some instances, even a reduction in service can have a negative impact. Consequently, this study is designed to investigate the impact airline

deregulation has had on small communities that are located at least 100 air miles from any hub airport. This is unmistakably a conservative measure of distance since road (or driving) distances can be considerably further. For example, North Bend, OR is 71 air miles from the closest hub airport, Eugene, OR (a small hub) but is 105 road miles from that community.

Of the 485 non hubs listed by the FAA as having scheduled commercial airline service in 1978, 110 non hubs are located at least 100 air miles from the nearest hub of any size. On October 1, 1998, approximately 20 years following the passage of the Deregulation Act, according to the Official Airline Guide twenty-nine (or 26.4%) of those 110 small communities are not receiving any scheduled airline service.

Thus, from the above figures it can be deduced that 81 of the "original" 110 non hubs have retained some level of service since 1978. In fact some locations have shown gains in service levels, at least from the standpoint of seats available at the specific location. Other cities and towns have not been as fortunate, however, inasmuch as they have experienced a reduction in service levels although not to the extreme of having scheduled service eliminated.

To determine the shifts in non hub service, the number of airline seats available per week was employed. While the number of flights into a non hub could have been used, that figure conceals the fact that various aircraft are configured quite differently insofar as seating capacity is concerned. For example, the Beech 1900D (Raytheon Aircraft) seats 19, the Embraer 120 Brasilia seats 30, the Saab 340 seats 35, the Canadian Regional Jet Series 200 (Bombardier Aerospace) seats 50 and the Boeing 737-300 series has the capacity for 128 passengers.

Service thus is defined as seats available per week and not the quality of that service. While many officers of various chambers of commerce

and governmental officials have testified that their locale does not receive jet service or as frequent service as they desire, the fact remains that they do receive service and for this study that is what was assessed (U.S. Senate 1996). Furthermore, while some research has centered on factors such as seating comfort, noise levels, food and beverage service, etc. they were also not evaluated in this study (Jones and Cocke 1981, Davis and Dillard 1982).

## FINDINGS

The base year data (1978) for the 81 non hubs that have experienced continued service since deregulation originated with the Civil Aeronautics Board (1981). Following the "sunset" of the CAB and the data that it generated, comparable present-day data are not readily available; so for this study they were computed using flight data published in the Official Airline Guide(OAG). The data were developed by selecting all flights listed in the OAG that arrived at each non hub (one assumes that each seat in turn departed that location as well) and determining the number of seats per flight and ultimately compiling those numbers into the measure of "seats per week" at each location. This process requires, as noted previously, that the configuration for each aircraft be determined as well as any airline configuration differences that exist from airline to airline. The comparison of the number of seats per week available at each non hub located at least 100 nautical miles from any hub airport for the years 1978 and 1998 is shown in Table 1.

It is fairly obvious from the data depicted in Table 1 that, on an overall basis, deregulation has not been particularly kind to outlying small communities. Indeed, of those small communities that experienced continuous air service since 1978 and are at least 100 nautical miles from any hub airport, 60.5% (49 of 81) are experiencing a lower level of service (i.e., seats available) now as compared to just prior to deregulation (as of

October 1, 1978). In the aggregate, the 81 small communities lost 9.42% of the capacity that they had in October 1978. Some locations, contrary to the overall slippage in service levels, experienced major increases e.g., Mountain Home AR 729.09%, Grand Rapids MN 386.11%, Jackson Hole WY 292.67% and Brownwood TX 151.47%. As the data show however, several of the locations that had major improvements did so with a rather small numerical base in 1978. Still there are numerous cities and towns that have had to confront major disruptions in service, e.g., Iron Mountain MI -86.84%, Cape Girardeau MO -82.91%, Alamosa CO -79.37%, Laramie WY -78.75% and Twin Falls ID -75.36%.

**TABLE 1**  
**Changes In Service to Small Communities**  
**1978 vs. 1998**

Community	Available Service		
	October 1 1978	October 1 1998	Percent Change
Aberdeen SD	3,740	1,972	- 47.27%
Abilene TX	3,285	1,925	- 41.40
Alamosa CO	1,750	361	- 79.37
Alliance NE	532	722	+ 35.71
Bozeman MT	5,090	7,529	+ 47.92
Brownwood TX	136	342	+151.47
Cape Girardeau MO	2,112	361	- 82.91
Carlsbad NM	960	323	- 66.25
Casper WY	4,546	2,030	- 55.35
Cedar City UT	707	570	- 19.38
Clarksburg WV	2,239	1,235	- 44.84
Cortez CO	1,050	380	- 63.81
Crescent City CA	560	630	+ 12.50
Devil's Lake ND	672	361	- 46.28
Dodge City KS	850	627	- 26.24
Duluth MN	11,094	10,919	- 1.58
Durango CO	4,482	2,891	- 35.50
Elko NV	1,512	2,250	+ 48.81

Eureka/Arcata CA	3,868	3,687	- 4.67	Miles City MT	228	456	+100.00
Farmington NM	3,280	2,280	- 30.49	Missoula MT	5,769	8,287	+ 43.65
Flagstaff AZ	1,226	1,317	+ 7.42	Mountain Home AR	55	456	+729.09
Ft Leonard Wood MO	2,481	342	- 86.22	New Bern NC	3,074	1,850	- 39.82
Gallup NM	1,400	361	- 74.21	North Platte NE	2,350	760	- 67.66
Garden City KS	799	893	+ 11.76	Pasco WA	7,004	9,672	+ 38.09
Gillette WY	1,782	840	- 52.87	Pellston MI	2,206	2,170	- 1.63
Glasgow, MT	456	228	- 50.00	Pendleton OR	1,739	999	- 42.55
Glendive MT	228	342	+ 50.00	Pierre SD	2,396	2,344	- 2.07
Goodland KS	442	684	+ 54.75	Pocatello ID	1,813	2,049	+ 13.02
Grand Canyon AZ	3,848	6,314	+ 64.09	Presque Isle ME	2,548	760	- 70.17
Grand Rapids MN	180	875	+386.11	Redding CA	2,432	2,420	- 0.49
Great Falls MT	10,410	10,137	- 2.63	Riverton WY	1,379	779	- 43.51
Hancock MI	1,946	1,645	- 15.47	Rock Springs WY	1,750	475	- 72.86
Harrison AR	1,400	456	- 67.43	Roswell NM	875	836	- 4.46
Harve MT	129	228	+ 76.74	St George UT	617	1,260	+104.21
Hays KS	816	836	+ 2.45	Sault St Marie MI	672	735	+ 9.38
Helena MT	2,314	4,905	+111.97	Scottsbluff NE	2,700	855	- 68.33
Hibbing MN	3,066	1,358	- 55.71	Sidney MT	228	323	+ 41.67
Huntington WV	7,525	2,952	- 60.77	Silver City NM	936	209	- 77.63
Idaho Falls ID	1,974	3,559	+ 80.29	Springfield MO	13,822	15,686	+ 13.49
Int'l Falls MN	0	910	+	Steamboat Springs CO	2,464	630	- 74.43
Iron Mountain MI	4,620	608	- 86.84	Twin Falls ID	4,261	1,050	- 75.36
Jackson Hole WY	1,050	4,123	+292.67	Walla Walla WA	2,796	999	- 64.27
Jacksonville NC	4,215	2,229	- 47.12	Williston ND	570	399	- 30.00
Kalispell MT	3,884	4,099	+ 5.54	Wolf Point MT	228	361	+ 58.33
Key West FL	2,674	6,537	+ 44.47	Yuma AZ	2,008	1,230	- 38.75
Kirksville MO	270	312	+ 15.56				
Klamath Falls OR	2,722	962	- 64.66				
Lake Havasu City AZ	814	475	- 41.65				
Lamar CO	442	684	+ 54.75				
Laramie WY	1,699	361	- 78.75				
Laredo TX	2,406	2,035	- 15.42				
Liberal KS	1,000	361	- 63.90				
Marquette MI	2,310	2,463	+ 6.62				
Mc Cook NE	1,165	722	- 38.03				

At the outset of any study that focuses on the well-being of a community, it must be acknowledged that many variables can account for that community's growth or decline. One factor that is often cited as vital to the welfare of a city or town is transportation. Surely if one listens to the officials of communities that are about to lose part or all of their scheduled transportation service, whether rail, bus or air, one could only surmise that the community in

question undoubtedly will decline if not fade away completely. In fact, the arguments given for continued service are not too dissimilar to those large cities that contend that a major league professional sports franchise will "make or break" that city.

While it is obvious that more detailed research is needed to adequately measure all the variables (geographical, economic and social) and their contributions to a community's growth or decline, it is interesting nonetheless to compare the population figures of the 81 communities that maintained some level of service with the 29 communities that had their service eliminated during the period involved in this study (1978-1998). Table 2 presents the population figures (1980 to 1996) for those communities that lost their scheduled air service. From the data provided in Table 2 it is difficult to fully accept the argument that with the service so goes the community since 21 (or 72.4%) of the cities and towns gained in population during the period. Again it must be emphasized that a number of factors may be at play here (e.g., retirement locations, gambling).

In regard to the corresponding population figures for those communities that had ongoing operations throughout the two decades, the growth pattern shown in Table 3 is nearly identical to those locations that completely lost their service. During the time period involved in this study, of those locales that had continuous service, 57 of the 81 (or 71.3%) cities or towns experienced population growth while 23 (or 28.7%) suffered a decline in population (one non hub serves a military installation and population figures are not generally available).

**TABLE 2**  
**Population Changes of Communities That**  
**Lost Commercial Air Service - 1980 To 1996**

Community	1980	1996	Percent Change
Austin NV	370	405	+ 9.46%
Baker OR	9,471	9,693	+ 2.34
Battle Mountain NV	2,749	4,296	+ 56.28
Bowman ND	2,071	1,602	- 22.65
Columbus IN	30,614	32,963	+ 7.67
Craig CO	9,239	8,504	- 7.96
Eagle Pass TX	21,407	27,554	+ 28.71
Ely NV	4,882	4,978	+ 1.97
Enterprise AL	18,033	21,253	+ 17.86
Eureka NV	650	1,577	+142.62
Fillmore UT	2,083	1,988	- 4.56
Frenchville ME	1,450	1,169	- 19.38
Hermiston OR	9,642	11,160	+ 15.74
Inyokern CA	800	900 <sup>a</sup>	+ 12.75
La Grande OR	11,793	12,228	+ 3.69
Lake of Ozarks MO	534	701	+ 31.27
Mackinac Island MI	479	455	- 5.01
Milford UT	1,293	1,241	- 4.02
Osage Beach MO	1,992	3,163	+ 58.79
Rawlins WY	11,547	8,947	- 22.58
Richfield UT	5,482	6,057	+ 10.49
Richland WA	33,578	37,445	+ 11.52
Sidney NB	6,010	6,128	+ 1.96
Sterling CO	11,385	10,535	- 7.47
Tonopah NV	1,952	3,616 <sup>a</sup>	+ 85.25
Trinidad CO	9,663	8,831	+ 8.61
Wells CO	1,218	1,479	+ 21.43
Winnemucca NV	4,140	8,004	+ 93.33
Winslow AZ	7,921	10,420	+ 31.55

<sup>a</sup> a population figure is for the year 1990

**TABLE 3**  
**Changes in Population of Small Communities**  
**1980 Vs. 1996**

<b>Community</b>	<b>1980 Population</b>	<b>1996 Population</b>	<b>Percent Change</b>
Aberdeen SD	29,956	25,088	- 16.25%
Abilene TX	98,315	108,476	+ 10.34
Alamosa CO	6,830	7,739	+ 13.31
Alliance NE	9,869	9,702	- 2.69
Bozeman MT	21,645	28,522	+ 31.77
Brownwood TX	19,396	19,255	- 0.83
Cape Girardeau MO	34,361	35,464	+ 3.21
Carlsbad NM	25,496	26,535	+ 4.08
Casper WY	51,016	48,800	- 4.34
Cedar City UT	10,972	17,811	+ 62.33
Clarksburg WV	22,371	17,410	- 22.28
Cortez CO	7,095	8,781	+ 23.76
Crescent City CA	3,075	6,866	+123.28
Devil's Lake ND	7,442	7,672	+ 3.09
Dodge City KS	18,001	22,430	+ 24.60
Duluth MN	92,811	83,699	- 9.82
Durango CO	11,426	13,923	+ 21.85
Elko NV	8,758	19,371	+121.18
Eureka/Arcata CA	36,491	42,463	+ 16.37
Farmington NM	31,222	37,936	+ 21.50
Flagstaff AZ	34,743	55,094	+ 58.58
Ft Leonard Wood MO	n/a	n/a	n/a
Gallup NM	18,161	20,591	+ 13.38
Garden City KS	18,256	25,366	+ 38.95
Gillette WY	12,134	19,202	+ 58.28
Glasgow, MT	4,455	3,656	- 17.93
Glendive MT	5,978	4,557	- 23.77
Goodland KS	5,708	4,834	- 15.31
Grand Canyon AZ	1,348	1,499 <sup>a</sup>	+ 11.20
Grand Rapids MN	7,934	8,162	+ 2.87
Great Falls MT	56,725	57,758	+ 1.81
Hancock MI	5,122	4,565	- 10.87
Harrison AR	9,567	11,537	+ 20.59
Harve MT	10,891	10,232	- 6.05
Hays KS	16,301	17,911	+ 9.88
Helena MT	23,938	27,982	+ 16.89
Hibbing MN	21,193	17,600	- 16.95
Huntington WV	63,684	53,941	- 6.71
Idaho Falls ID	39,590	48,079	+ 21.44
Int'l Falls MN	8,417	8,000	- 4.95
Iron Mountain MI	8,341	8,530	+ 2.27
Jackson Hole WY	4,571	5,614	+ 22.82
Jacksonville NC	17,056	69,889	+309.76
Kalispell MT	10,648	15,678	+ 47.24
Key West FL	24,382	25,339	+ 3.93
Kirksville MO	17,167	17,107	- 0.35
Klamath Falls OR	16,661	18,580	+ 11.52
Lamar CO	7,713	8,473	+ 9.85
Lake Havasu City AZ	15,909	39,503	+148.31
Laramie WY	24,410	26,583	+ 8.90
Laredo TX	91,449	164,899	+ 80.32
Liberal KS	14,911	17,551	+ 17.71
Marquette MI	23,288	17,016	- 26.93
Mc Cook NE	8,404	7,926	- 5.69
Miles City MT	9,602	8,882	- 7.50
Missoula MT	33,388	51,204	+ 53.36
Mountain Home AR	8,066	11,236	+ 39.30
New Bern NC	14,557	21,464	+ 47.45
North Platte NE	24,479	23,369	- 4.53
Pasco WA	17,944	23,910	+ 33.25
Pellston MI	565	597	+ 5.66
Pendleton OR	14,521	15,893	+ 9.45
Pierre SD	11,973	13,422	+ 12.10
Pocatello ID	46,340	51,344	+ 10.80
Presque Isle ME	11,172	9,213	- 17.53
Redding CA	41,955	76,616	+ 82.61



Riverton WY	9,588	10,050	+ 4.82
Rock Springs WY	19,458	19,742	+ 1.46
Roswell NM	39,676	47,559	+ 19.87
St George UT	11,350	42,763	+276.77
Sault St Marie MI	14,448	15,300	+ 5.90
Scottsbluff NE	14,156	14,400	+ 1.72
Sidney MT	5,726	4,971	- 13.19
Silver City NM	9,887	12,007	+ 21.44
Springfield MO	133,116	143,407	+ 7.73
Steamboat Springs CO	5,098	6,768	+ 32.76
Twin Falls ID	26,209	31,989	+ 22.05
Walla Walla WA	25,618	28,529	+ 11.36
Williston ND	13,336	12,718	- 4.63
Wolf Point MT	3,074	2,874	- 6.51
Yuma AZ	42,433	60,519	+ 42.62

## SUMMARY AND CONCLUSIONS

In the 200 plus years of this country's history, small communities, situated well away from population centers that attract a major share of transportation activity, have struggled to maintain their economic and social viability in the face of declining public transportation options. In most instances, those communities have not enjoyed the economic benefit of being located advantageously on a major river, highway or railroad. Nevertheless most have survived as the result of some other advantages among which could be good soil, a steady, honest albeit small workforce, and lower taxes and crime rates. Over time all modes of transportation have found varying degrees of diseconomies associated with serving these outlying areas. In the end, many carriers in all modes of transportation have found it necessary to reduce or eliminate service to these small communities.

Undoubtedly, marketers and consumers located in those outlying towns and cities as well as those attempting to reach the rural customer have

experienced considerable anxiety. Twenty years ago the Airline Deregulation Act granted the Nation's airlines the freedom to serve communities based upon profitability standards without the onerous cross-subsidy *quid pro quo* that required service to the contrary. Most assuredly there are and have been subsidies that have allowed the continuation of service notwithstanding economic losses. Section 419, Essential Air Service Subsidy Payments for 1997 totaled more than \$40 million, covering 70 locations in the 48 contiguous states with the average subsidy to maintain service to those cities and towns amounting to \$572,067 annually (RAA 1998, Jones and Cocke 1984).

In the 110 cases in which each community is located at least 100 air miles from any other hub airport, 29 of the communities lost all scheduled air service. In regard to the remaining 81 communities, 49 have endured service cuts (i.e., fewer seats available per week) while 32 are experiencing service improvements. Insofar as the aforementioned fear is concerned, i.e., a reduction or elimination of service will cause the population of the city or town to spiral downward, the apprehension seems unfounded. That is not to say that some cities and towns did not experience a population loss. However, twenty-one of those 29 confronted the cessation of service and obviously found ways to compensate for the loss of one degree of freedom, i.e., one less transportation option.

Probably a more startling and possibly more confounding finding evolving out of this study, is the fact that those cities and towns that have had a continuation of some level of service experienced a nearly identical pattern of population growth as did those that lost all service. This paradox clearly suggests that more research is needed to understand the numerous other variables, demographic, economic and geographic, and how they relate to one another in effecting change in small communities.

## REFERENCES

- Addus, Abdussalam (1985), "Subsidizing Air Service to Small Communities," *Transportation Quarterly*, 39 (October), 537-552.
- (1984), "Essential Air Service Determination for Small Communities," *Transportation Quarterly*, 38 (October), 559-574.
- Civil Aeronautics Board (1981), *Report on Airline Service, Fares, Traffic, Load Factors, and Market Shares*, Washington, D.C., November.
- Cunningham, Lawrence F. and E. Woodrow Eckard (1987), "U.S. Small Community Air Service Subsidies," *Journal of Transport Economics and Policy*, September, 255-277.
- Davis, Grant M. and John E. Dillard Jr. (1982), "The Professional Traveler and the Airline Deregulation Act of 1978: An Appraisal," *Proceedings of the Transportation Research Forum*, XXIII, Number 1, 419-426.
- Gallagher, John E. (1990), "Where There's No Bus, There's No Exit," *Time*, March 26, 59.
- Greyhound Lines, Inc. (1998), "Greyhound Ticket Sales Increase 11.5 Percent in September; Third Quarter sales Rose 5 Percent Over 1997," *PR Newswire*, October 8, <<http://biz.yahoo.com/prnews>>
- Jones, J. Richard and Sheila I. Cocke (1981), "A Performance Evaluation of Commuter Airlines: The Passenger's View," *Proceedings of the Transportation Research Forum*, XXII.
- (1984), "The Subsidy Factor in Airline Service to Small Communities: An Analysis of Section 419," *Southern Marketing Association Proceedings*.
- (1985), "An Analysis of Commuter Airline Service in Western Markets Subsequent to Deregulation," *Proceedings of American Institute for Decision Sciences, Western Region*, 252-254.
- Kihl, Mary (1988), "The Impacts of Deregulation on Passenger Transportation in Small Towns," *Transportation Quarterly*, 42 (April), 243-268.
- Meyer, James S (1981), "Section 419 of the Airline Deregulation Act: What Has Been The effect On Air Service To Small Communities," *Journal of Air Law and Commerce*, 47 (Fall), 151-185.
- Meyer, John R., Clinton V. Oster, Ivor P. Morgan, Benjamin A. Berman, and Diana L. Strassman (1981), *Airline Deregulation, The Early Experience*, Boston: Auburn House Publishing Co.
- Regional Airline Association (1998), *The 1998 Annual Report of the Regional Airline Association*.
- Reich, Robert B. (1987), "The Rural Crisis and What to Do About It," *NRECA Management Quarterly*, Winter, 34-39.
- Schwab, Jim (1987), "You Can't Get There From Here," *Planning*, July, 26-29.
- Shultz, Paul (1987), "In the Gateway of Commerce: The Impact of Deregulation on Rural Transportation Services," *Rural Telecommunications*, Fall, 28-30.

Stephenson, Frederick J. and Frederick J. Beier (1981), "The Effects of Airline Deregulation on Air Service to Small Communities," *Transportation Journal*, Summer, 54-62.

U.S. Department of Transportation (1997), *Transportation Statistics Annual Report 1997*.

U.S. Senate, Committee on Commerce, Science, and Transportation (1996), *Domestic Air Services in the Wake of Airline Deregulation: Challenges Faced by Small Carriers*.

Vellenga, David B. and Daniel R. Vellenga (1986), "Essential Airline Service Since Deregulation: Selected states in the Northwestern and Southwestern U. S.," *Logistics and Transportation Review*, 22 (December), 339-370.

Williamson, Kenneth C., Lawrence F. Cunningham and Marc G. Singer (1982), "Scheduled Passenger Air Service To Small Communities: A Role For State And Local Governments," *Transportation Journal*, Summer, 25-34.

#### AUTHOR BIOGRAPHY

J. Richard Jones is the George R. Brown Distinguished Professor of Business at Trinity University, San Antonio, Texas. Prior to his present position, he was Distinguished Professor of Transportation at Memphis State University. In addition, Dr. Jones has been on the faculties of The University of Georgia and the University of Houston. He also spent four years in the Office of the Secretary of Transportation, Washington, DC. Dr. Jones received his PhD from Arizona State University and his MBA and BA from Michigan State University.