

Swelbar-Zhong Consultancy

**The Economics That Have Shaped the
Evolution of Connecting Smaller Markets
to the U.S. Air Transportation System**

From Turboprops to Small Regional Jets to Large Regional Jets

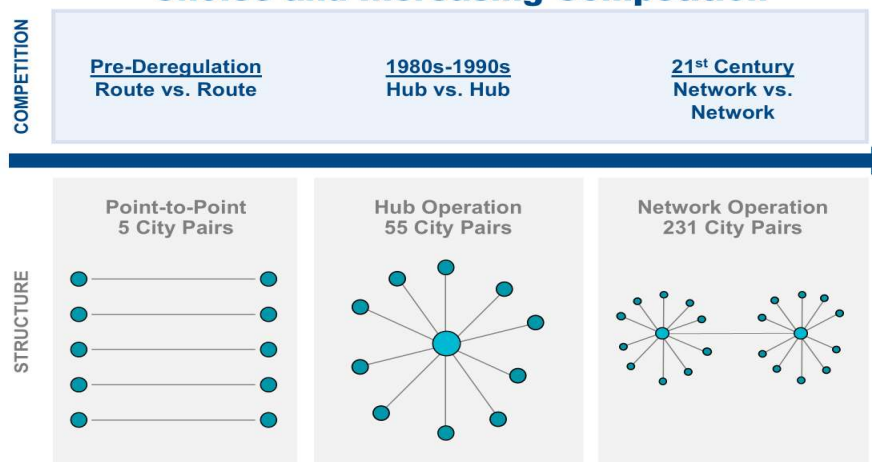
**William Swelbar, Chief Industry Analyst, Swelbar-Zhong Consultancy
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PREFACE

The Request for Information (RFI) published by U.S. DOJ and DOT on October 24, 2024, asks generally how air transportation for passengers, workers, regions, and economic growth has been affected by consolidation, anticompetitive conduct, unfair methods of competition, and /or other changes in the air transportation industry?

1. There can be no meaningful discussion of “small(er) community air service” and the “regional airline industry” if it does not include the network carriers American Airlines, Delta Air Lines, United Airlines, and Alaska Airlines, and the hub and spoke systems they operate. Without hub and spoke systems, serving smaller markets is simply not financially viable. Despite this fact, the network carriers are most often to blame when small market air service is reduced. It is simply the economics of small market flying that have forced changed strategies in providing this service.
2. Consolidation benefited smaller markets most, particularly in the 1990s and 2000s when commercial transactions between airlines would result in increased network scope as new points to airline maps – domestic and international - were added. Each point when added to a hub/gateway would increase the number of options for air travel consumers, particularly at the smaller markets whether it be airline choice, hub choice, or time of day choice to name a few.
3. The introduction of the regional jet (small configured at 50 seats or less or large configured between 65 – 76 seats) made the industry even more competitive as smaller markets were previously limited to service from turboprop aircraft, their limited flying range and by their proximity to an airline hub that offered access to the national air transportation system.

The Evolution of Regional Aircraft Has Had A Profound Impact on Expanding Networks, Increasing Consumer Choice and Increasing Competition



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This RFI presupposes that most, if not all consumer issues, begin and end with the airlines themselves. If not for the network airlines that remain (American, Delta, United, and Alaska), smaller markets would have little to no choice about how air travel consumers might enter the air transportation grid.

Regarding this response about smaller market airports and the regional airline sector, two critical stakeholders have been omitted by DOJ and DOT as doing harm to this sector – the US Government and organized pilot labor that wields an outsized influence as to how smaller markets can and will be served. These will be addressed in this response.

A TRUNCATED SUMMARY

- **This paper is written against an interpretation of the eras of changed thinking regarding smaller market commercial airline service.**
 - **1997–2001:** A period where not all network airlines had access to regional jets because of scope clause constraints in their mainline pilot collective bargaining agreements. Only Delta, Continental, Alaska, and America West had few, if any, constraints. This first mover ability would create a competitive advantage.
 - **2002–2012:** The era began immediately after 9/11 and immediately after many airlines negotiated very expensive pilot contracts to win relief in scope language to gain access to the small jet. The low-cost sector would begin to grow rapidly, and the internet would make ticket price shopping more transparent. At points during this time, more than 35% of the industry's capacity would be operating while in bankruptcy. In 2002, the price of jet fuel was 71 cents per gallon. In 2012, the cost per gallon of jet fuel was \$2.80. The cost of jet fuel would peak at \$3.79.
 - **2013–2019:** Whereas in the prior era it was the price of jet fuel that would have the most impact on the economics of regional jet flying, the era would be defined by U.S. government regulatory changes that would lead to a pilot shortage impacting the regional sector disproportionately. The change in the pilot supply and demand relationship would begin a period of rapidly increasing labor costs in all sectors of the industry but would negatively impact the regional sector most.
 - **2020–2024:** The economics of the small and large regional jet were each being challenged by stubbornly high jet fuel prices, the permanence of regulation enacted in 2013 and 2014 that would force the industry to hire more workers to do the same work, and now a cost-push on labor rates. In 2013, there were 1,057 small RJs in service and in 2024 there are 312. The number of large RJs in service would surpass the number of small RJs in 2016.
- **Operating costs increasing at historic rates have forced the industry to rethink their respective strategies for offering scheduled service. The trend toward larger aircraft offering fewer frequencies is a changed strategy. The use of larger aircraft address revenue and cost issues.**
- **Larger aircraft with more seats is also evident when comparing the cost of operating a small regional jet v. a large regional jet. The use of the large RJ would surpass the use of the small RJ in 2016.**

- **U.S. Government policies maintaining 45-year-old legislation that was supposed to last for 10 years has helped to create a zero-sum game for smaller market air service. There are many deserving markets that are being crowded out from gaining access to more and better commercial air service.**
- **The U.S. government continues to subsidize service at airports that are within a reasonable driving distance of a non-subsidized larger airport. Today this service being subsidized is often being performed with small and large RJ aircraft. The increased seat size of these aircraft relative to turboprop aircraft that were in place when subsidies began gives one airport a government-induced competitive advantage v. a non-subsidized airport that cannot use its own funds to react.**
- **The headlines read about extraordinary numbers of lost service, particularly at smaller markets. Since 2022, only 3 smaller market airports no longer have network carrier air service. Frequencies have been lost but connectivity has not been for nearly all airports in the group.**
- **Some are suggesting that nationalization might help address smaller market air service issues. Such an action would only increase costs for the industry, as it is shown by this paper, that cannot sustain service based on the costs added over the past decade. More regulation is not the answer.**
- **Hubs have been built to connect markets large and small. Hubs have more services than their local markets could support on their own because up to 80 percent of the seats are allocated for connecting traffic.**

EXECUTIVE SUMMARY

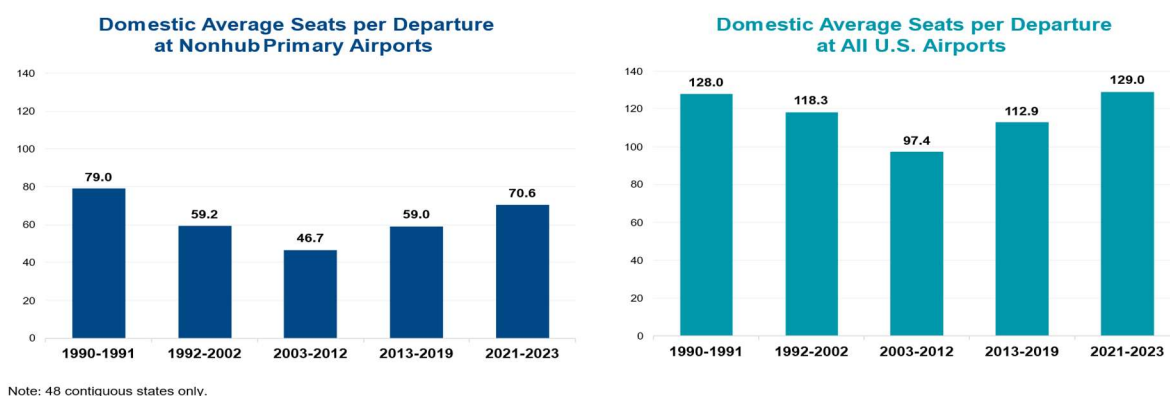
Since 1978, U.S. regional airlines have played a critical role in the development of the domestic network architecture in place today. However, their impact would not be felt without the connecting services made available to smaller markets via their respective hub-and-spoke networks.

But many headwinds the sector faces today can be placed at the feet of the US Government and its policies: the 1500-hour FAA pilot rule; the imposition of restrictive flight time/duty time/and rest provisions; restrictions on struggling airports that cannot use its own funds to compete against government subsidized air service at competing airports, and playing politics by keeping non-essential Essential Air Service (EAS) airports on a list made 45 years ago. That list was supposed to last for 10 years. These are just a few.

That list was assembled 15 years before the interstate highway system was completed. EAS is just an example of another policy exposed in a constrained environment where the smaller markets are disproportionately impacted.

The regional airline sector has played an outsized role in regional hub-building in places like Cincinnati, Minneapolis/St. Paul, and even Denver, where smaller markets face seasonal weather conditions making roads impassable. Collective bargaining strategies between network airlines and their pilot unions have been used to reduce the average cost of domestic networks. As such, the size of the regional industry has been influenced by more than just market demand. Today, as operating costs increase at historic rates, the industry has little choice but to increase the size of the aircraft as will be shown.

The Network Strategy of More Frequency With Smaller Aircraft Has Now Become Fewer Frequencies With Larger Aircraft In the Face of Rapidly Rising Input Costs



The small regional jet (RJ) (50 seats or less) was first introduced in 1993 by Comair, Delta Air Lines' regional partner in Cincinnati, and would have the ability to increase the scope

and scale of hub networks. The small RJ had the ability to fly much longer distances than a turboprop aircraft and a network carrier could add spokes between 400 – 1,000 miles to their hubs, as well as overfly hubs of their competitors. The 50-seat RJ would ultimately prove to be a more efficient replacement for the turboprop when costs and revenue potential were considered.

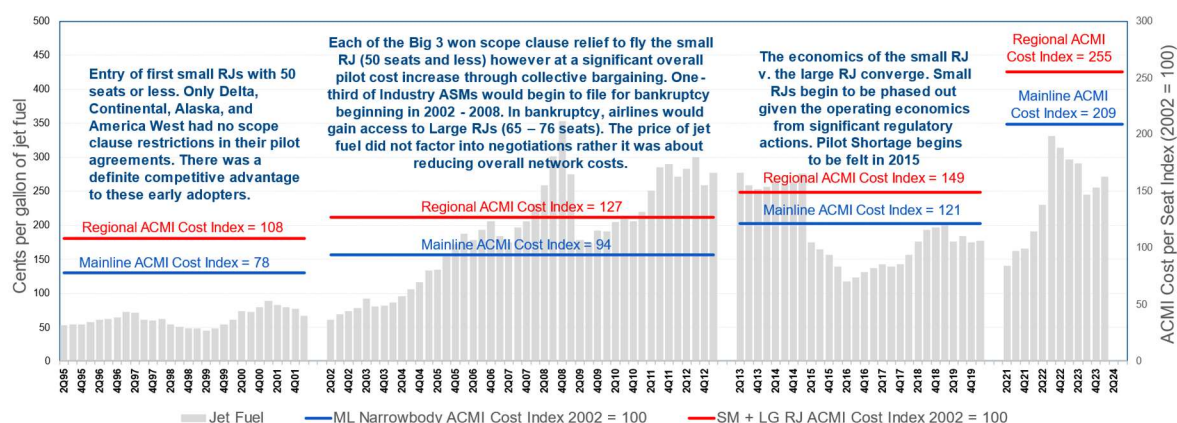
ECONOMICS OF THE SMALL RJ v. SMALL MAINLINE NARROWBODY

The economics of employing regional jet aircraft into respective networks were unquestioned from the mid-1990s. It quickly became clear that the use of the small RJ would become a game changer in how smaller markets were served and connected to the national air transportation system. There have been several ways that network airlines have contracted with regional partners to fly on their behalf, typically into smaller markets where mainline aircraft (more than 100 seats) became either too large and/or too expensive to fly.

The accepted model for purchasing capacity from a regional provider is through an ACMI agreement. Under an ACMI arrangement, the mainline airline will pay the regional provider for the cost of providing the **A**ircraft, the **C**rew, **M**aintenance, and **I**nsurance. The mainline carrier then assumes the risk for the cost of jet fuel as well as all revenue risk. Other minor cost areas are typically absorbed by the mainline airline.

When All Network Airlines Were Able Employ Regional Jets, the Cost of Jet Fuel was \$0.71 per Gallon and Regional Pilot Labor Costs Were Low –

The Cost to the Network Carriers of Regional Flying Increased Rapidly



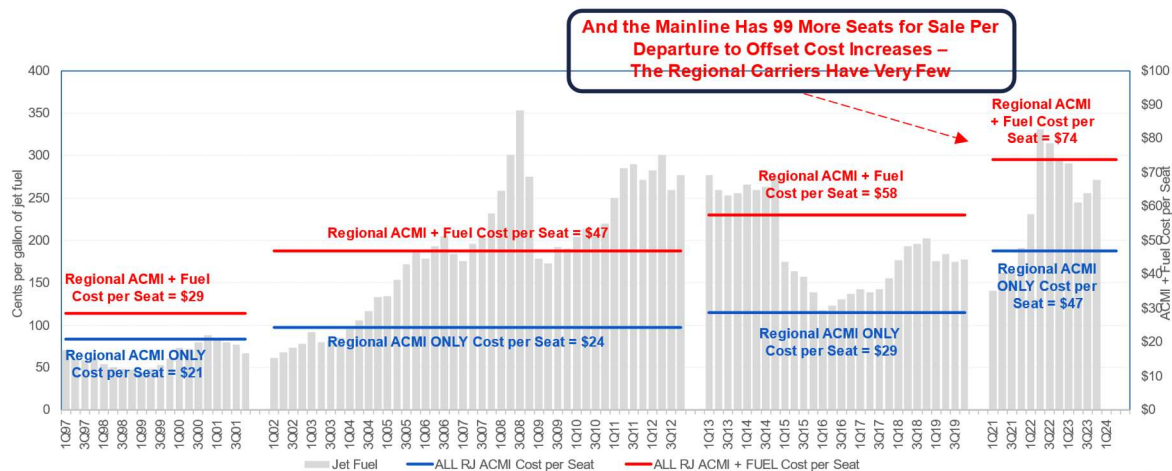
Note: ACMI refers to cost of Aircraft, Crew, Maintenance and Insurance.
 Source: A4A Cost Index, Swelbar-Zhong Consultancy.

The network strategy in the late 1990's and 2000's was to schedule more frequencies per day with smaller aircraft. Given the growth of the lower cost sector of airlines, particularly Southwest Airlines, the network carriers were vigilant about maintaining low overall network costs. The early financial mindset in deploying the regional jet to add frequency was on trip cost, or the cost per departure, as it would be cheaper to purchase capacity from a regional provider than performing the same flying with aircraft that were too large and operated by crews with high legacy costs.

To provide an apples-to-apples comparison of the ACMI cost of purchasing capacity from a regional provider, an ACMI cost of mainline flying was calculated. Comparing the increases in ACMI costs for the mainline and the regional provider are shown in the chart above. At least through 2019, ACMI cost increases were uniform when comparing mainline with regional ACMI costs.

Today, because of a shortage of pilots underwritten by the 1500-hour rule put forth by government and as other costs rise including regulatory, the difference between the cost of the mainline flying organically versus contracting with a regional partner are rising rapidly and the overall economics of flying are converging when potential revenue generation is considered.

The Economics of Regional Jet Flying Were Practical When Fuel Cost Added Less than \$10 per Seat – Today Fuel Cost per Seat Has Nearly Tripled and the Cost of Aircraft, Crew, Maintenance, and Insurance (ACMI) Have Doubled



Note: ACMI refers to cost of Aircraft, Crew, Maintenance and Insurance.
Source: A4A Cost Index, Swelbar-Zhong Consultancy.

In 2002, just after the pilot negotiations had concluded with the network airlines, the price of jet fuel was 71 cents per gallon. By 2012, the cost per gallon of jet fuel was \$2.80. The cost of jet fuel would peak at \$3.79 in 2008. Given the increases in the cost of jet fuel, the focus on trip cost would begin to shift to seat cost economics as expressed in the table below. The average number of seats per departure between 2003 – 2012 was 97 and today the number has increased to 129.

An Illustrative Evolution of the PER SEAT COST Economics of Regional Service Under a Capacity Purchase Agreement v. Mainline Narrowbody Service					
PRO FORMA SMALL + LARGE REGIONAL JET v. MAINLINE NARROWBODY					
	1995 - 1996	1997 - 2001	2002 - 2012	2013 - 2019	1st Half 2024
ML Narrowbody ACMI ONLY per Seat	\$ 18.88	\$ 23.03	\$ 27.70	\$ 35.83	\$ 68.20
ML Narrowbody ACMI + FUEL per Seat	\$ 27.22	\$ 32.30	\$ 60.18	\$ 68.18	\$ 105.04
Average ML Narrowbody Seats per Departure					170
Average SM + LG RJ Seats per Departure					71
- Incremental Seats for Revenue Generation					99
PRO FOMRA Small and Large RJ ACMI Costs Per Period					
Lg and Sm RJ ACMI ONLY per Seat			\$ 24.35	\$ 28.81	\$ 49.78
- v. ML Narrowbody (RJ Absolute Cost Difference)			(\$4.88)	(\$6.89)	(\$18.41)
Lg and Sm RJ ACMI + FUEL per Seat			\$ 46.95	\$ 57.61	\$ 79.48
- v. ML Narrowbody (RJ Absolute Cost Difference)			(\$13.23)	(\$10.57)	(\$25.56)
Data Source: US DOT Forms P5, 2, P6 and P7. Adjustments were made to fuel cost and gallons consumed as data filed was in error. Cost of insurance and flights as part of the ACMI calculation were estimated for the regional sector. Note: 2023 data skewed higher as carrying more pilots than actual flying requires.					
Small RJ ACMI and ACMI + Fuel Costs Per SEAT and Period					
Small RJ ACMI ONLY per Seat			\$ 26.81	\$ 31.49	\$ 50.05
- v. Mainline Narrowbody			(\$0.88)	(\$4.34)	(\$18.14)
Small RJ ACMI + FUEL per Seat			\$ 49.85	\$ 53.59	\$ 78.32
- v. Mainline Narrowbody			(\$10.33)	(\$14.59)	(\$26.71)
Large RJ ACMI and ACMI + Fuel Costs Per SEAT and Period					
LG + SM RJ ACMI ONLY per Seat			\$ 21.20	\$ 28.51	\$ 49.53
- v. Small Small RJ (Absolute Cost Difference)			(\$5.62)	(\$2.98)	(\$0.52)
- v. ML Narrowbody (Absolute Cost Difference)			(\$8.04)	(\$7.19)	(\$18.66)
LG + SM RJ ACMI + FUEL per Seat			\$ 44.16	\$ 51.20	\$ 79.93
- v. Small Small RJ (Absolute Cost Difference)			(\$5.69)	(\$2.39)	\$1.60
- v. ML Narrowbody (Absolute Cost Difference)			(\$16.02)	(\$16.98)	(\$25.11)



There are noticeable periods where the deployment of regional aircraft would see their importance rise and fall. But during the 2002–2012 period, the regional sector’s importance was never more significant as high-cost network airlines would be forced to restructure costs in bankruptcy.

Southwest would be joined by other low-cost airlines and would grow at the expense of the higher cost network airlines. As fares fell and labor costs had been increased significantly prior to 9/11, the airlines filing for bankruptcy would shutter more nearly 700 small narrowbody aircraft. Per MIT’s [Airline Data Project](#), the four network airlines referenced flew the equivalent of 1,896 small narrowbody aircraft in 2000. The bankruptcy period extended through CY 2007 when the same 4 airlines flew 1,167 small narrowbody aircraft. [Note: Alaska Airlines did not file for bankruptcy]. The networks would remain intact as those aircraft would be replaced by small RJs and large RJs (65 – 76 seats).

In 2013, the 1500-hour rule was implemented and would have an outsized negative impact on the regional sector's pilot recruitment. But it would also be the beginning of a cost – push in pilot wages not ever witnessed historically as the supply and demand relationship for skilled pilots was changing. The 1500-hour rule would begin to deter prospective pilots from the industry given the costs of training that were expensive even before the near six-fold increase in hours required to become a first officer on a commercial airliner. The immediate application of new flight time/duty time/rest rules in 2014 would have the effect of requiring more pilots to do the same work prior to their implementation.

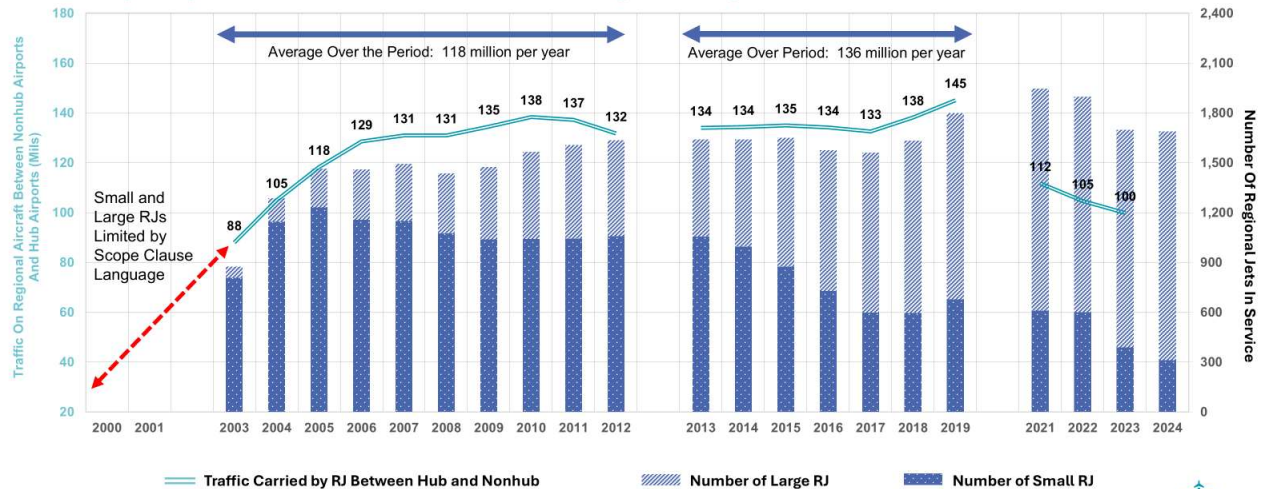
It is not that anyone does not want well-rested pilots, but rather an industry already struggling to attract qualified pilots would need to attract more to do the same level of work. Various schemes put forth by pilot unions to give regional pilots a clear path to fly for the mainline were tried. Whereas labor suggested these would fix the problem, low wages in the face of increased costs of training could not be overcome. Low wages at the regional airlines had worked to cross-subsidize wages at the mainline for decades.

Beginning in 2015/16, the pressures to increase wages at the regional level would grow and ultimately wage gains of significance were won. This would be the beginning of working to make the small jet less economic when compared to other substitutes like the large RJs and some smaller narrowbodies like the B717.

Despite the increased costs, the small and large RJs would carry more than 100 million passengers per year between smaller markets and network carrier connecting hubs. Passenger traffic would grow commensurate with the increase in small and large RJs through 2019. Through the Pandemic period, these smaller markets would receive increased service from other airline sectors. But given the rapidly changing economics, the small RJs were being phased out and replaced with either large RJ or mainline service.

Small and Large Regional Aircraft Would Carry 145 Million Passengers From Nonhub Primary Airports to Connecting Hub Airports in 2019

Beginning in 2016, the Network Carriers Are Utilizing More Large RJs Than Small RJs For the First Time

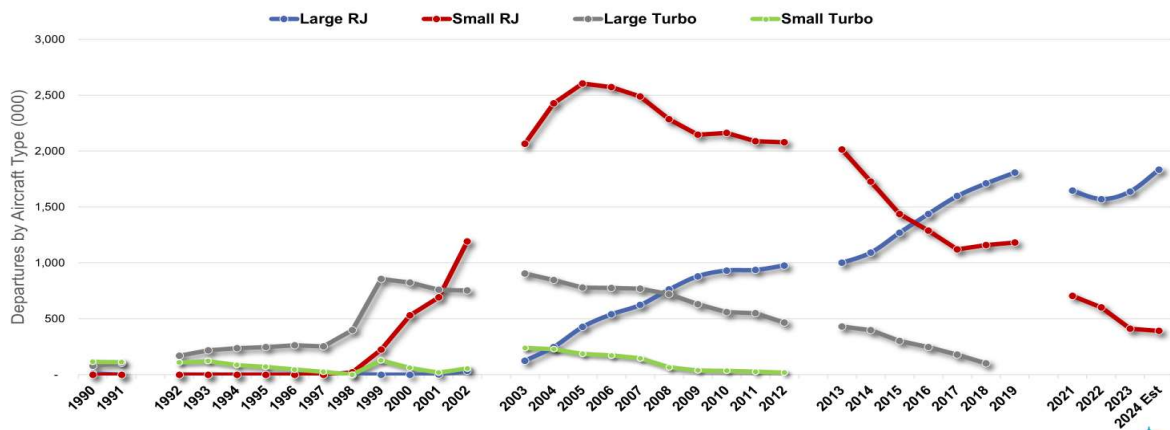


Note: 48 contiguous states only.



Beginning with Deregulation and continuing through the 1990s generally and until the small RJ would win acceptance by nearly all airlines that relied on smaller market traffic to help fill big airplanes at the hubs specifically, the turboprop was the only game in town and was limited in the missions it could fly. Then came the small RJ, with an average of 20 more seats. Not only was the small jet capable of competitive flying the turboprop did not have the range to fly, but the extra seats would contribute to meaningful incremental revenue generation as well.

From Turboprops – To Small Regional Jets – To Large Regional Jets: The Regional Airline Sector Has Evolved As Economics Have Forced the Sector to Adapt



Note: Carriers included: American/US Airways/America West, Delta/Northwest, United/Continental, and Alaska.



The number of departures deployed by the small RJ would peak in 2005 and begin a slow decline. In the fourth quarter of 2005, more than 35% of the industry ASMs were in bankruptcy. More than 60% of those ASMs were previously dedicated to domestic business. During the bankruptcy process, airlines were able to win access to large RJs (65 – 76 seats) with the court's assistance and not through expensive collective bargaining.

Between 2015 and 2016, more large RJ departures would be flown than small RJ departures. Never has the cost per departure of the large RJ been less than the small RJ, the difference in costs is easily overcome given the fact that there are 25 more seats on the large RJ to use to generate revenue. Moreover, the trend toward larger aircraft offering more seats per departure only with fewer frequencies being flown from airports in metro areas of all sizes defines the network strategies of the network airlines today.

The regional sector is a story about having to adapt to changing economic conditions in the industry, changing capacity strategies by the airlines that employ their capacity, changing regulation that impacts staffing levels, and changing approaches to collective bargaining too. In many ways one of the more significant contributions to the air travel consumer along this deregulated life cycle of the regional sector is the fact that when the mainline sector of industry struggled the regional sector would prove to be an acceptable substitute and service would not be lost. The contribution to increasing competition among airlines and hubs for even the smaller markets has been a great success.

The network airlines are too often blamed for small market commercial service woes. The economic benefits conferred on smaller markets by the network airline operating hub and spoke systems will never be replicated by other airline sectors, particularly as input costs continue to increase. Despite the higher costs, the network airlines and their regional partners have evolved and adapted and endeavored to keep small markets connected.

However, the post-Pandemic economics for the smaller airframes going forward will be severely tested. It is likely that the size of the regional sector peaked in 2019 whether by departures or seats or even passengers carried.

Two forces that have put the regional sector in a difficult place are the U.S. Government and organized pilot labor. For labor, the holy grail in labor theory is to have one pay rate be the same for the same job even though the network flown will generate revenue differently. When the regional sector began paying wages equal to pilots flying airplanes with nearly 4 times the number of seats, there was no going back.

The government and labor each contributed to exacerbating a constrained pilot workforce and made it a shortage. A changed pilot supply:demand relationship has altered the economics in such a way that it is hard to envision ever going back to networks fed by the number of regional aircraft in years past.

There are two myths this response tries to dispel that are often mentioned.

1. That nationalizing or re-regulation of the airline industry will fix the perceived and real problems faced by the regional sector. Adding costs like the government has done for the last 4 years only hurts the smaller sectors of the industry. Adding cost is not the answer. Stop subsidizing services that can easily drive and free up aircraft and skilled labor to fly to more deserving markets.
2. Suggesting that total seat share at a hub city somehow is a detriment and translates into outsized market power needs a re-think by government too. Often 80% of the seats offered from a hub city are made available so that air travel consumers from Fargo, ND can fly to Minneapolis and connect to Los Angeles. That seat has a different purpose and should not be used as some sole determinant of market power.

Network Airline Strategies, The Cost of Jet Fuel, The Cost of Regulation, and The Cost of Pilot Labor Have Forced the U.S. Regional Airline Sector to Evolve and Adapt

INTRODUCTION

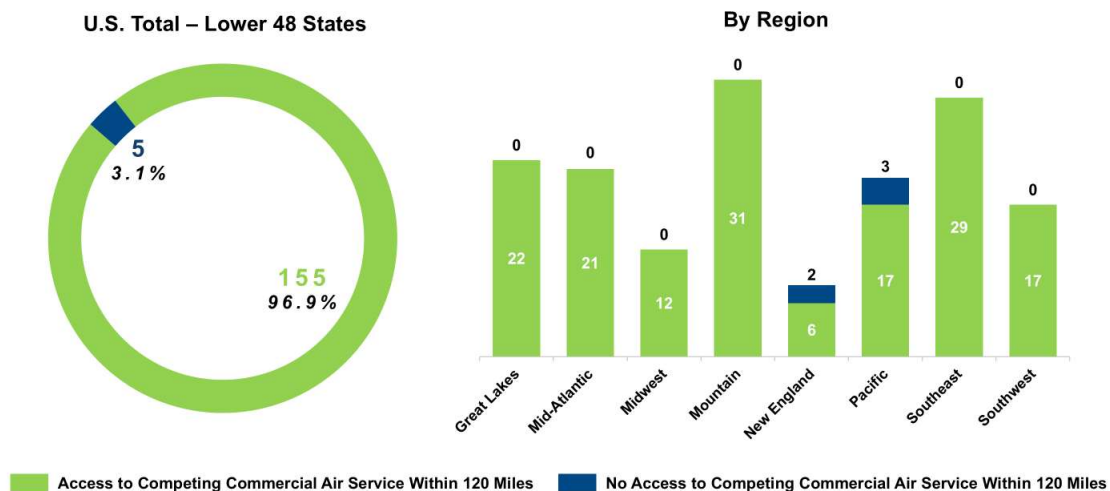
Smaller commercial-service airports in the United States have historically relied on smaller aircraft that were built 40 – 50 years ago. In the 1980's, it was turboprop aircraft with seating configurations from 9 – 30+ seats that would be used to connect these smaller markets with regional hubs that were being built across the country.

Today most small commercial-service airports lie within a reasonable driving distance of at least one larger airport that offers more service options offered by multiple airlines likely providing the air travel consumer more choice and better price points to choose from.

CASE STUDY

There are 22 nonhub primary airports in the Great Lakes region of the U.S. [a nonhub primary airport is defined by the FAA as having at least .05% of all US enplaned passengers but not less than 10,000 passengers – See Appendix]. There are 34 distinct airports within 75 miles of the 22 nonhub airports in the Great Lakes region and an additional 56 distinct airports between 76 – 120 miles of these 22 nonhub primary airports. In addition to the 22 nonhub primary airports, the Great Lakes region is home to 16 EAS-designated airports throughout the region as well. These subsidized airports often compete for the same traffic pools as with airports that are not subsidized.

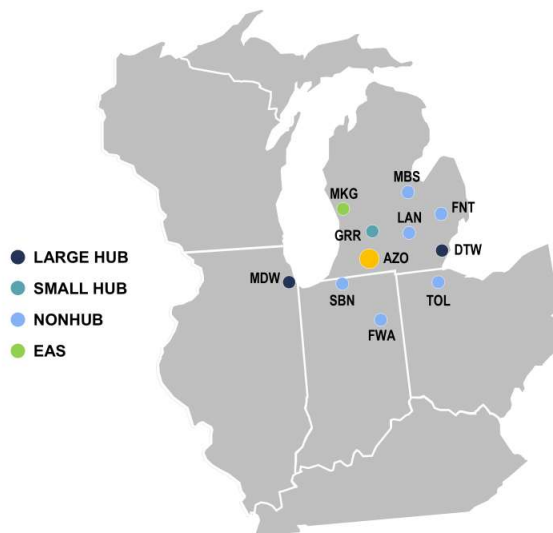
Nonhub Primary Airports by Region



Include all Nonhub airports with at least 10,000 enplanements for CY 2023 in the lower 48 states.

Kalamazoo (AZO), Michigan is surrounded by 10 other airports with commercial service. Kalamazoo passengers can use the local airport, or it can drive to 2 large hub airports: Detroit and Chicago – MDW; 1 small hub airport in Grand Rapids, MI; 6 other nonhub primary airports in Ft. Wayne, South Bend, Toledo, Lansing, Flint, and Midland/Bay City/Saginaw, MI; or 1 EAS-designated airport at Muskegon. [Definitions of all airport size are available in the Appendix].

All Airports Within 120 Miles From AZO – Kalamazoo, MI



Total Airport Throughput

Airport	2019	2020	2021	2022	2023
DTW	36,283,329	13,669,956	23,030,562	27,506,140	30,754,163
MDW	20,194,522	8,474,065	15,407,478	19,351,959	21,381,579
GRR	3,555,434	1,703,607	2,876,445	3,411,306	3,772,187
SBN	817,101	411,412	671,664	714,099	810,290
FWA	794,858	423,363	666,129	711,795	779,449
FNT	597,359	346,480	472,614	593,937	560,684
LAN	320,120	113,221	178,018	153,669	200,577
MBS	261,171	92,458	131,788	135,357	180,744
AZO	293,934	103,369	154,789	139,013	171,484
TOL	243,076	126,909	162,596	157,573	124,804
MKG	37,160	10,522	24,753	22,505	8,989

Total Airport Seat Capacity – Outbound + Inbound

Airport	2019	2020	2021	2022	2023
DTW	44,102,993	25,723,542	31,984,628	33,697,592	37,580,813
MDW	24,965,015	17,216,855	19,981,301	24,349,516	28,080,670
GRR	4,405,766	2,856,685	3,813,463	4,060,224	4,523,029
SBN	994,823	721,258	904,020	846,305	940,097
FWA	989,053	763,571	903,479	839,707	933,193
FNT	713,564	551,297	605,698	694,207	647,192
LAN	412,705	216,530	263,870	208,901	270,725
MBS	333,769	194,831	181,016	166,768	228,185
AZO	398,318	210,851	215,148	173,080	220,436
TOL	320,135	228,529	221,488	185,716	141,072
MKG	69,170	60,170	70,080	49,080	21,526

Seat capacity offered in 2023 versus 2019 was greater in only 2 of the 10 competing airports: Chicago – MDW and Grand Rapids. Airport throughput was greater in 3 as Chicago-MDW and Grand Rapids were joined by Ft. Wayne, IN. There are many case studies across the contiguous 48 states like this Kalamazoo story.

THE EVOLUTION OF THE REGIONAL AIRLINE SECTOR IN THE U.S.

The regional sector of the U.S. airline industry is a microcosm of the entire domestic network architecture in place today. The regional sector began as an amalgamation of individual local service airlines flying turboprop aircraft with 9/19 and eventually 30+ seats on each aircraft.

Pre-deregulation, the commuter/regional sector of the industry would be the primary providers of air service to these smaller markets. To pass the Airline Deregulation Act of 1978, Congress would guarantee commercial air service to these smaller airports for at least 10 years. Whereas pre-deregulation commercial service was more of a point-to-point

variety, the advent of building connecting hubs with spokes coming from points large and small would become the operating model as it was the most efficient architecture to gather and distribute passengers.

Given the limited range of the turboprop equipment being used during the 1980's and the mid-1990's, stage lengths flown by the commuter/regional sector of the industry averaged 200 miles. Large and small turboprop aircraft being flown would peak in 1996 at 795.

An Illustrative Evolution of TURBOPROP Economics				
SMALL + LARGE TURBOPROP				
	1990 - 1996	1997 - 2001	2002 - 2012	2013 - 2019
- Avg Pilot Cost per Block Hour	\$ 92.07	\$ 123.90	\$ 176.54	
- Avg. Est. ACMI per Block Hour	\$ 239.81	\$ 365.70	\$ 471.19	
- Avg. Fuel Cost per Block Hour	\$ 71.52	\$ 89.72	\$ 181.59	
- Avg. Est. ACMI + Fuel per Block Hour	\$ 311.33	\$ 455.42	\$ 652.79	
Avg. Aircraft In Service	526	754	604	
Avg. Stage Length	174	198	204	
Avg. Number of Block Hours	1,006,806	1,490,175	792,554	
Avg. AC Utilization	5.16	5.40	3.57	
Average Number of Departures	893,381	1,310,757	695,167	
Average Number of Departures per Day	5.1	4.8	3.2	
Avg. Seats per Departure	24	28	35	
Avg. Number of Departed Seats	24,410,293	36,947,259	23,930,075	
ACMI + FUEL per Departure	\$ 350.86	\$ 517.76	\$ 744.24	
ACMI + FUEL per Departed Seat	\$ 12.84	\$ 18.37	\$ 21.62	

Data Source: US DOT Forms P5.2, P6 and P7. Adjustments were made to fuel cost and gallons consumed as data filed was in error.



Between 1990 – 1996, there were an average of 526 turboprop aircraft operating flying an average stage length of 174 miles and producing an average of 5 departures per day. Between 1997 – 2001, there were an average of 754 turboprop aircraft operating, flying an average stage length of 198 miles and producing slightly less than 4 departures per day.

The revenue potential limited by the average number of seats in addition to rapidly increasing costs per departure made a substitute airframe with competitive economics when revenue potential was included) like the small RJ made for a very attractive tool to further build networks.

THE ADVENT OF THE SMALL REGIONAL JET

The first small regional jet was deployed in Europe in 1991. However, the use of the airplane would become a North America phenomenon and would be instrumental in building that vast U.S. domestic network in place today replete with airline and increased airline hub competition.

The competitive pressure to keep operating costs low to combat a myriad of new competition permitted after deregulating the U.S. airline industry led to an aggressive deployment of these small jets by Delta Air Lines and Continental Airlines. These two airlines, along with Alaska Airlines and America West Airlines, were not limited in their use of the small jet by the collective bargaining agreements in place with their own pilot unions.

SCOPE CLAUSE

A provision in mainline airline pilot collective bargaining agreements is a section defining the scope of work that can be done by any capacity provider using an airline's code. The lack of strict limitations would provide Delta and Continental, particularly, a first mover advantage in using the small jets to further build their hubs with spokes longer than the 400-mile range limit of a turboprop. Expanding the number of spokes not only made single hubs stronger through economies of scope and scale, the benefits of connecting regional hubs with one another could be maximized as well. Consumers would benefit.

The labor strife over deployment of this small jet cannot be overstated. It would become the "white-hot issue" when negotiating new collective bargaining agreements at American, United, US Airways, and others. The big airline pilot unions saw the small regional jet as a threat to the work done historically by the mainline pilots flying small narrowbody aircraft (100 – 150 seats).

The conundrum was that the cost of flying small narrowbody equipment under legacy contracts was fast becoming non-competitive with upstarts and more established lower cost providers like Southwest Airlines. Despite the perceived threat, the organized pilot unions made a conscious decision not to fly the smaller regional aircraft with pilots on the mainline seniority list covered by the mainline collective bargaining agreement. The economics that were prevalent at the time were trip costs or the cost per departure. It would give way to per seat economics as oil prices began to increase rapidly between 2002 – 2012.

An Illustrative Evolution of Mainline Economics In ACMI Terms					
Per Trip Cost Economics Would Transcend Into Per Seat Cost Economics Between 2002 - 2012					
MAINLINE NARROWBODY FLEET					
	1995 - 1996	1997 - 2001	2002 - 2012	2013 - 2019	1st Half 2024
- Avg Pilot Cost per Block Hour	\$ 604	\$ 688	\$ 695	\$ 999	\$ 1,644
- Avg. Est. ACMI per Block Hour	\$ 1,286	\$ 1,464	\$ 1,687	\$ 2,052	\$ 4,120
- Avg. Fuel Cost per Block Hour	\$ 567	\$ 597	\$ 1,786	\$ 1,868	\$ 2,226
- Avg. Est. ACMI + Fuel per Block Hour	\$ 1,853	\$ 2,060	\$ 3,473	\$ 3,920	\$ 6,345
Avg. Aircraft In Service	1,412	1,511	1,393	2,014	2,588
Avg. Stage Length	779	826	984	1,062	1,045
Avg. Number of Block Hours	4,989,732	5,391,788	5,032,024	7,547,322	4,570,779
Avg. AC Utilization	9.68	9.80	9.93	10.03	9.70
Average Number of Departures	2,337,095	2,373,422	1,920,587	2,710,227	1,627,145
Average Number of Departures per Day	4.5	4.3	3.8	3.6	3.5
Avg. Seats per Departure	145	145	151	160	170
Avg. Number of Departed Seats	339,741,902	343,989,295	290,398,772	433,976,670	276,125,001
ML ACMI Trip Cost	\$ 2,745	\$ 3,325	\$ 4,420		
ML Trip Cost v. Small RJ Trip Cost		\$ 2,310	\$ 3,112		
ML ACMI + FUEL Trip Cost	\$ 3,957	\$ 4,681	\$ 9,100		
ML ACMI + Fuel Trip Cost v. Small RJ ACMI + Fuel		\$ 3,665	\$ 7,792		
ML ACMI per Seat			\$ 29.23	\$ 35.69	\$ 68.20
ML ACMI per Seat v. Small RJ ACMI per Seat			\$ 2.42	\$ 4.20	\$ 18.14
ML ACMI + FUEL Cost per Seat	\$ 27.22	\$ 32.30	\$ 60.18	\$ 68.18	\$ 105.04
ML ACMI + Fuel Seat Cost v. Small RJ ACMI + Fuel			\$ 10.33	\$ 14.59	\$ 26.71
Source Data: MIT Airline Data Project through 2020.					
Data Source: US DOT Forms P5-2, P6 and P7. Adjustments were made to fuel cost and gallons consumed as data filed was in error.					



The management teams at mainline airlines previously hampered by strict scope limits at the time would ultimately win greater access to use more regional jets. However, this scope clause relaxation would come at a significant cost of increased pilot wages and improved work rules at the mainline carriers. Each large network carrier believed they needed to have access to the cheaper small regional jet to compete with first movers Delta and Continental.

The benefit for management from a new ability to compete on a more level playing field was that the legacy airlines would now be able to average down the cost of operating a network without having to shrink to the benefit of air travel consumers in smaller markets across the U.S.

In each table and a subsequent one, costs are calculated in a way where one can compare the trip cost of flying a mainline aircraft versus that of the small regional jet. Airlines that purchase capacity from regional airlines do so primarily under a Capacity Purchase Agreement (CPA). That cost of that capacity is typically through an ACMI agreement with a regional provider as defined on page 2 of the executive summary.

Under ACMI agreements the regional provider is responsible for **A**ircraft, **C**rew, **M**aintenance, and **I**nsurance (**ACMI**). Typically, the regional airline is not exposed to the risk of ever-changing and unpredictable jet fuel prices. The legacy carrier purchasing the capacity thus undertakes both the revenue risk of selling the seats contracted for from the regional airline as well as the fuel price risk.

Rapidly rising jet fuel costs would be the first structural issue to begin eroding the economics of the small RJ as it was the contracting airline that shouldered all of the risk in changes in jet fuel prices. While the cost of fuel was not part of the ACMI payment, the cost of jet fuel was an input cost that needed to be factored into any decision to deploy more regional aircraft.

An Illustrative Evolution of Small RJ Economics In ACMI Terms					
Per Trip Cost Economics Would Transcend Into Per Seat Cost Economics Between 2002 - 2012					
SMALL REGIONAL JET (50 seats and less)					
	1990 - 1996	1997 - 2001	2002 - 2012	2013 - 2019	1st Half 2024
- Avg Pilot Cost per Block Hour		\$ 171	\$ 245	\$ 368	\$ 673
- Avg. Est. ACMI per Block Hour		\$ 659	\$ 833	\$ 1,028	\$ 1,712
- Avg. Fuel Cost per Block Hour		\$ 244	\$ 715	\$ 721	\$ 967
- Avg. Est. ACMI + Fuel per Block Hour		\$ 903	\$ 1,548	\$ 1,749	\$ 2,679
Avg. Aircraft In Service		127	1,000	790	312
Avg. Stage Length		425	442	400	321
Avg. Number of Block Hours		395,924	3,212,868	2,042,603	287,787
Avg. AC Utilization		7.92	8.85	6.98	5.06
Average Number of Departures		257,001	2,045,666	1,341,626	196,832
Average Number of Departures per Day		5.5	5.6	4.7	3.5
Avg. Seats per Departure		49	49	50	50
Avg. Number of Departed Seats		12,346,286	99,774,592	66,657,464	9,842,773
SM RJ ACMI Trip Cost		\$ 1,015	\$ 1,308		
SM RJ Trip Cost v. ML ACMI Trip Cost		(\$2,310)	(\$3,112)		
SM RJ ACMI + FUEL Trip Cost		\$ 1,391	\$ 2,431		
Small RJ ACMI + Fuel Trip Cost v. ML		(\$3,289)	(\$6,669)		
SM RJ ACMI per Seat			\$ 26.81	\$ 31.49	\$ 50.05
SM RJ ACMI per Seat v. ML ACMI per Seat			(\$2.42)	(\$4.20)	(\$18.14)
SM RJ ACMI + FUEL Cost per Seat			\$ 49.85	\$ 53.59	\$ 78.32
Small RJ ACMI + FUEL Cost per Seat v. ML			(\$10.33)	(\$14.59)	(\$26.71)

Data Source: US DOT Forms PS.2, P6 and P7. Adjustments were made to fuel cost and gallons consumed as data filed was in error.
Cost of insurance and flights as part of the ACMI calculation were estimated for the regional sector.



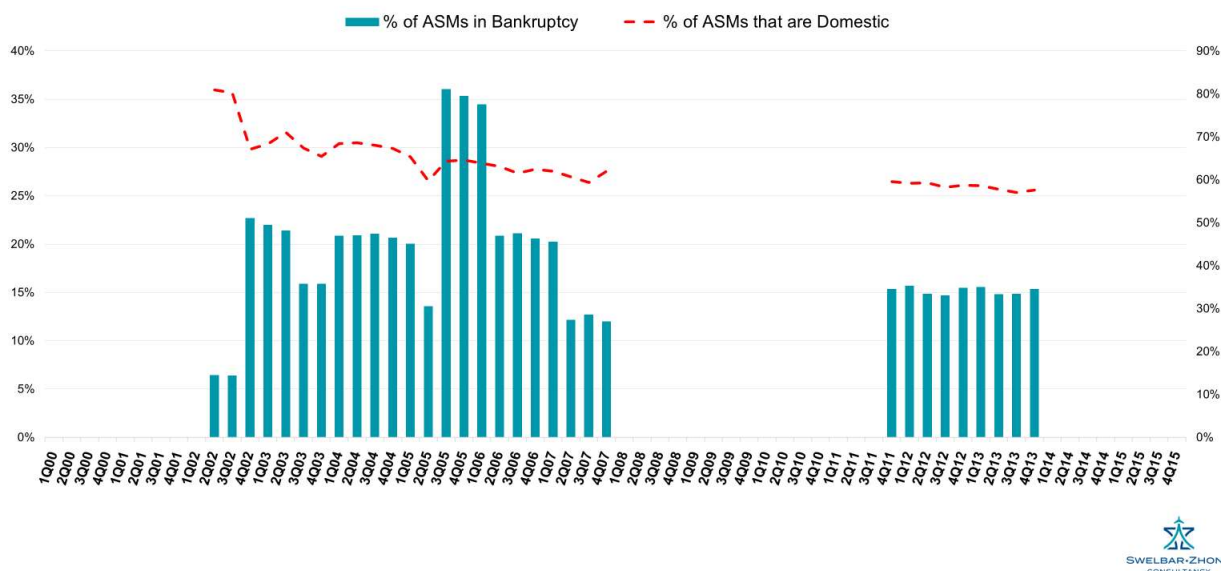
Airline operating costs are most often stated per available seat mile. During this period of negotiating scope clause relief from organized pilot labor, the term trip cost became vernacular versus block hour costs or cost per seat mile. Therefore, the tables depicting cost per aircraft and related economics are calculated per departure and per seat.

By the end of the 1990s, virtually all flying by regional airlines for one carrier or another was under a code-sharing agreement. Thus, a regional airline under a contract to fly for Delta to connect Augusta, GA with its hub in Atlanta would sell the flight using the DL airline code. More importantly, code-sharing benefited the Augusta air travel consumer who really needed to get to Los Angeles to do so under one ticket on Delta flying from Augusta and connecting in Atlanta to a flight bound for Los Angeles.

Between 1997 – 2001, the large airlines would reach new collective bargaining agreements with their respective pilot unions. The new contracts were expensive and labor costs at the legacy airlines would increase significantly. These cost increases would come in the face of a fast-growing low-cost airline sector, transparency in purchasing tickets via the internet would begin in 2000 and ticket prices would begin to drop precipitously, and then the aftermath of 9/11.

The cost to insure the industry given the war risk coupled with falling ticket prices and rising labor costs, numerous airlines would be forced to reorganize in bankruptcy. The most intense period was 2002 – 2008 when more than 35 percent of the system’s capacity at certain points in time would be restructuring in bankruptcy. And more than 60% of that capacity in bankruptcy would be domestic.

Percent of System ASMs in Bankruptcy Having Access to the Small RJ Helped Keep Small Markets Connected



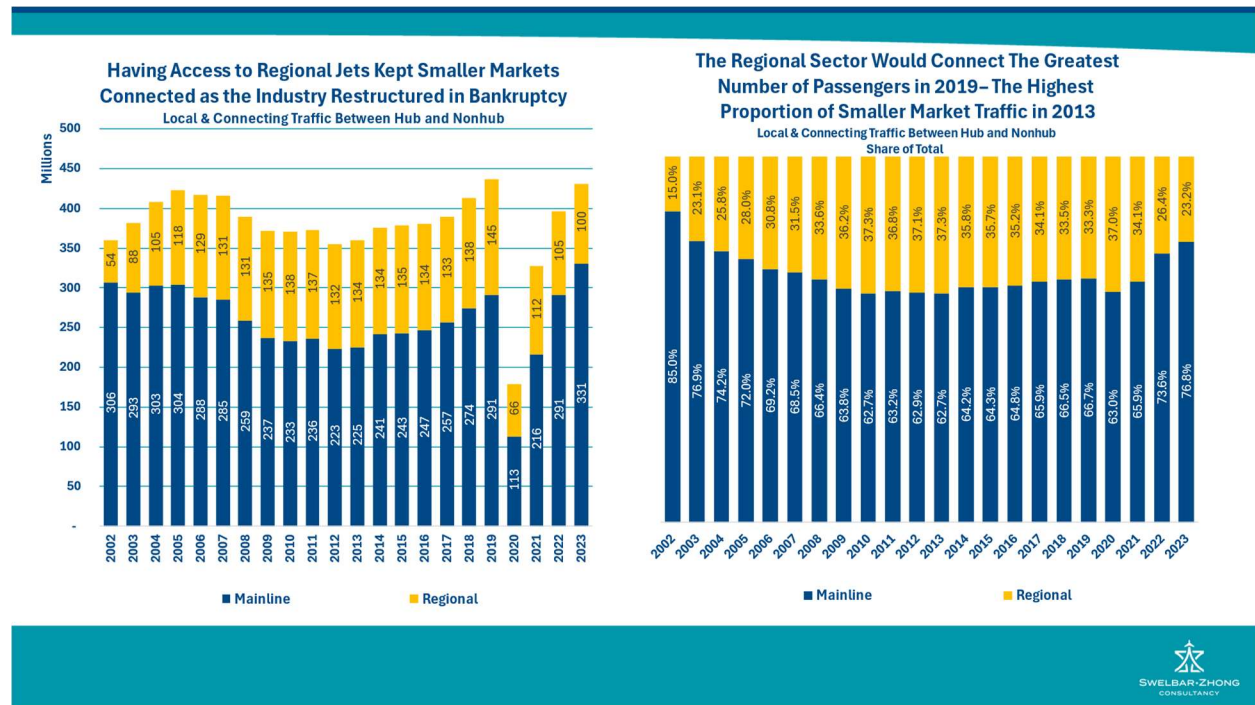
During the bankruptcy process, between 2002 – 2005, legacy network airlines would remove nearly 700 small narrowbody aircraft that they could not operate profitably in the new revenue environment being dictated by the growing lower cost competition. In 2001, the cost of fuel per block hour to operate the small narrowbody mainline equipment was nearly \$675.

In 2008 as the cost of a barrel of oil would exceed \$147 and the cost to refine a barrel of crude oil into jet fuel would be at least the equivalent of \$30 more per barrel, the cost of jet fuel per block hour would grow four-fold to \$1,608 per block hour. Legacy carriers would have struggled to maintain the breadth of their networks without having regional surrogates in place.

THE IMPORTANCE OF THE SMALL (and Large) REGIONAL JET

During this time, where costs needed to be reduced significantly in order to compete, the legacy airlines were able to use this new small jet-based regional industry in 3 very important ways: 1) the sector became a labor arbitrage tool to get crew costs down to a

level where the mainline could compete with the ever-growing lower cost sector; and 2) it would employ court-assistance to get further relief on scope clause constraints and gain access to larger regional jets without having to add significant cost after just making concessions to gain access to the small regional jets; and 3) the regional capacity would be an important placeholder to maintain the scope of the respective airline networks.



Between 2002 – 2012, an average of 326 large regional jets would be operated annually. In 2003, because of the scope clause limits in place at the time, an average of 68 large regional jets were operating but by 2012 the number would jump to 576. By 2019, there would be more than 1,100 large regional jets flying on behalf of the legacy airlines.

The deployment of the small regional jets would peak in 2005 at more than 1,200 and by 2019 the number deployed would fall to less than 700 and today that number is approaching 300. (see table above). Rising input costs across the industry has been the catalyst for the transition to larger aircraft configured with more seats. In the face of rapidly rising labor costs, other costs, and the fact that the price of jet fuel is no longer based on \$20 per barrel oil, the cost of flying is better amortized over the number of seats per airplane.

But nothing would factor more in triggering the economics of the small regional jet than what would transpire between July 2013 and January 2014. In July 2013, the FAA first officer qualification (FOQ) rule requiring pilots to have 1500 hours to sit in the right seat of a

commercial airliner would take effect. This would be followed by more stringent rules regarding pilot flight time/duty time/ and required rest would take effect.

The contribution of the regional sector in keeping the smaller markets connected to the national air transportation system would peak in 2019 at 145 million passengers carried between the large and smaller points on airline maps. The irony in the graph is that 2013 is the year when regional service accounted for its greatest proportion of traffic carried between smaller markets and hubs at 37.3%.

These regulatory actions, and pilot labor's push to increase wages during a tightening pilot market, began increasing costs at the regional level to uneconomic points particularly for the small RJ. The 1500-hour rule would significantly reduce the pool of pilots for hire and dissuade many that might have been thinking about a career as the cost of training is prohibitive for many; and the new flight and rest rules would reduce the amount of time existing crew would be legal to fly.

In the most recent round of pilot negotiations (2022/2023), management did not seek to further relax the existing scope clause language. The economic benefit to any of the networks has become less than the cost to relax given that pilot labor rates have been increased by historically high rates.

Not only have the largest airlines increased rates of pay, but all sectors of the industry, including the ULCC and regional sectors, have been forced by the market to match the increases granted at the much larger carriers. Between 2013 – 2017, the cost per block hour for a combined pool of small and large RJ pilots increased by 36% - from \$295 per block hour to more than \$400 per block hour.

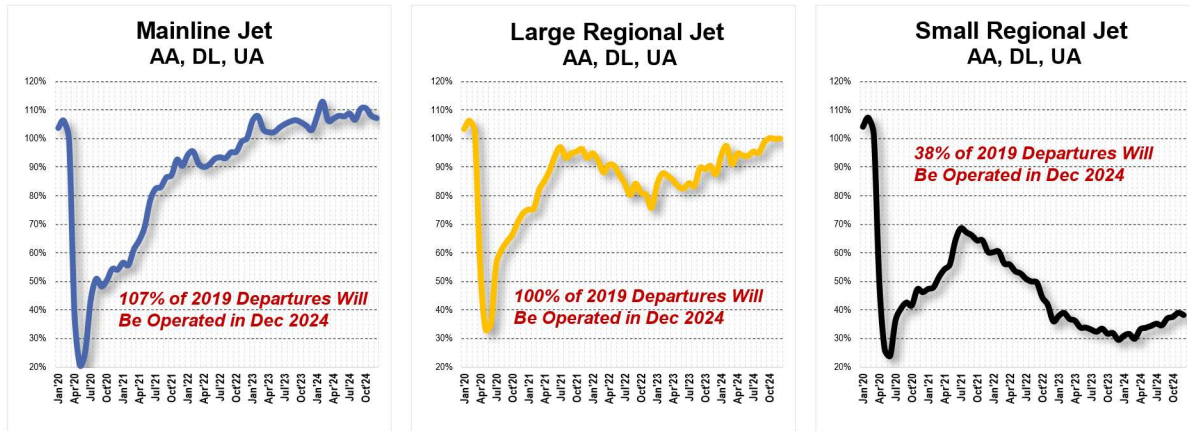
THE POST-PANDEMIC PERCEPTION OF REGIONAL AIRLINE SERVICE

The underinformed headlines will say that small airports have lost hundreds of this and thousands of that resulting in air service deserts throughout the United States caused by network airlines cutting service to smaller markets. There is no disputing the number of departures to nonhub airports particularly declined precipitously. There is no disputing that the number of hubs served from nonhub airports decreased albeit modestly. However, the network airlines that employ the services of regional airlines using their code did not cause airports to "go dark".

The Pandemic Only Accelerated the Removal of the Small RJ

... The regional sector is now served with fewer frequencies but a lesser loss of seats

2020 - 2024 As a Percent of 2019 Departures



Note: Large RJ includes CRJ-700/900, ERJ-170/175/190/195; Small RJ includes CRJ-100/200, CRJ-550, ERJ-135/140/145.



Through 2019, the general mindset regarding how best to serve smaller markets was to offer at least 3-4 frequencies per day to 1 or more connecting hubs through a regional provider. Frequencies would help the local airport to retain passenger traffic rather than drive to an alternative – particularly for less elastic travel. What was taking place within the regional sector leading up to 2019 was the steady reduction in the number of small RJs being deployed by the network airlines.

The steady reduction was fueled by economics driven by factors promulgated by the U.S. government regulatory actions and organized pilot labor that when taken together formed the perfect grounds to create a pilot shortage. Beginning in 2017, the difference between the ACMI cost of operating a small regional jet versus a large regional jet would become minimal. Moreover, the large regional jet with its greater seat capacity could generate up to 50% more revenue. The airline economics are obvious.

Today, it is less about the small regional jet and more about the large RJ. Pilot scope clauses limit the number of large RJs that can be deployed inside network carrier schedule offerings too.

The Pandemic period presented a pilot shortage never experienced. It is the smallest providers that suffer most as the decision to operate larger aircraft versus smaller aircraft is an easy decision – as described above. Why? Because they have the fewest seats to amortize costs over a less revenue generating potential than flying a larger airframe.

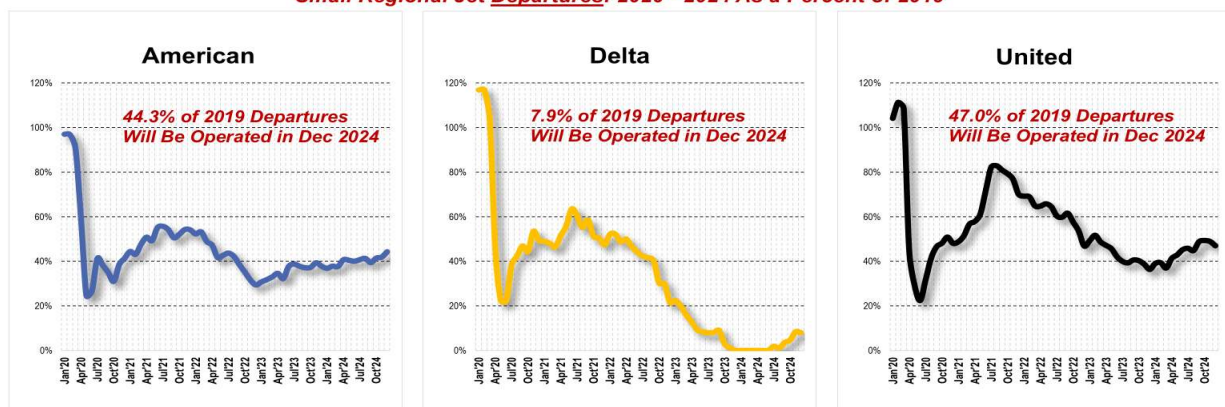
Thus, the pilot shortage would have a more significant negative impact on the regional airline sector as regional pilots were being lured away by their mainline partners and an aggressively growing ultra-low-cost sector (ULCCs).

Despite its economics, the small RJ remains a part of each network carrier schedule offering. Delta had suggested it would get out of the small RJ business altogether and did for a brief period. But recently Delta and American have decided to add a CRJ500 to their networks like United uses. Simply put, it is 50 seats on a larger RJ platform.

Because there are no scope limits per se on the number of 50-seat RJs that can be deployed, these aircraft will replace large RJs that are likely forced to fly between metro areas with lesser economics today. There are many smaller markets that can support more 50-seat service if only for the economics of flying a small jet.

**The Small RJ Remains In Service Despite Difficult Economics
However, in many instances the airframe is configured with a much-improved product**

Small Regional Jet Departures: 2020 - 2024 As a Percent of 2019



Note: Small RJ includes CRJ-100/200, CRJ-550, ERJ-135/140/145.



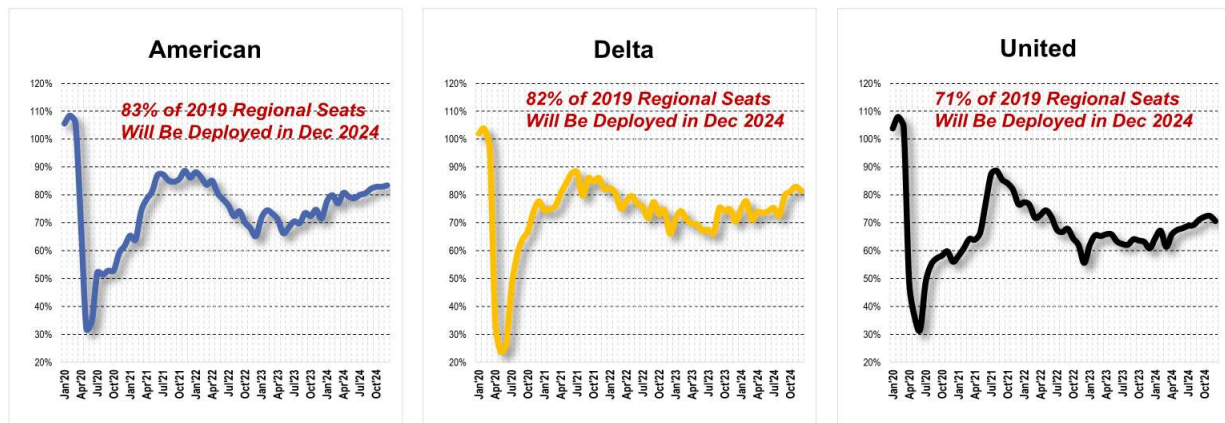
There are smaller markets that are very important to any one of the network airlines. The Pandemic certainly caused the network carriers to reduce service in some smaller markets that might have been important domestic and international revenue contributors to their respective networks. Adding some CRJ550 flying will prove to be a consumer benefit as the product is greatly improved over the small RJ.

Smaller metro areas that depended on the regional sector for their access to the air transportation grid feared a total loss of service as the small RJ's exit was being accelerated. That has not been the case. The ULCC sector has found many smaller airports to be fertile ground to add service to leisure destinations on a less than daily basis. The abandonment of nonhub airports in the U.S. has been overstated.

The headlines will speak to a loss of departures. But just like larger markets, it is the number of seats at airports that matters most in attracting traffic. That was not always the case at smaller markets where schedule density was important. The chart below contrasts with the charts depicting departures as a percentage of 2019. It underscores today's network strategy of serving markets of all sizes with fewer departures with larger aircraft. The result in the regional sector certainly shows a loss in frequency, but the loss in seats is only 20% versus a loss in frequency of 40%.

Across the Entire Domestic System, Larger Aircraft Operating Fewer Frequencies Are Being Deployed for Economic Reasons

Large and Small Regional Jet Departed Seats: 2020 - 2024 As a Percent of 2019



Note: Large RJ includes CRJ-700/900, ERJ-170/175/190/195; Small RJ includes CRJ-100/200, ERJ-135/140/145.



When it comes to small market services that can get nearly everyone to their desired destination by making only one stop, it is the network airlines that offer that service and not the ULCCs or Southwest. Whether serving a population center with 1 million people or 100,000 people, it is the network carrier sector that has made outsized investments in offering domestic and global access to the smallest markets. Yet, it is the sector blamed for the losses in service since the Pandemic.

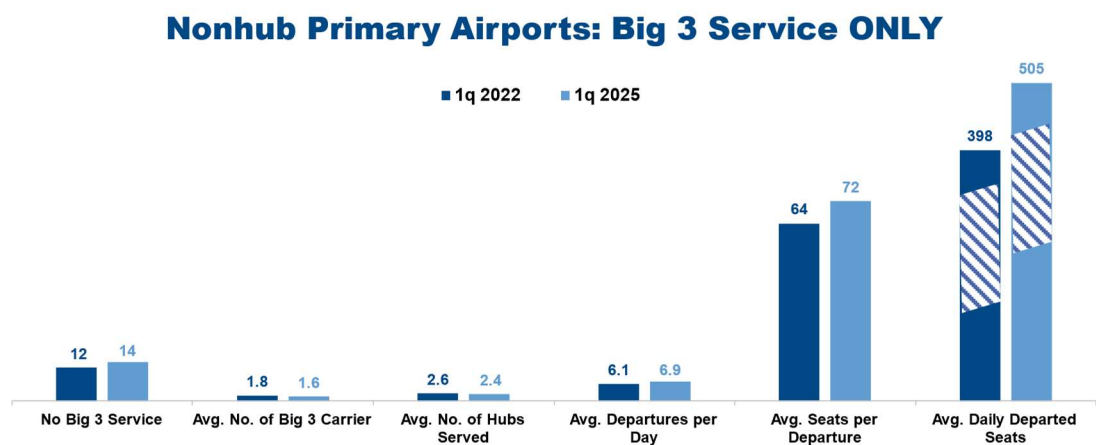
THE REAL STORY OF AIR SERVICE IN SMALLER MARKETS SINCE THE PANDEMIC

When assessing service to smaller markets, it is the Big 3 network carriers (American, Delta, and United) that are most often blamed for any air service woes. The entire industry began a recovery from the Pandemic in 2022. To go back earlier would be unfair as the network carriers emerged from the Pandemic slower than others because the operated networks focused on domestic and international traffic.

Among the group of nonhub primary airports, those that are headline stories about losing service we compare what is scheduled in the first quarter of 2025 to the first quarter of 2022. In 1q’2022 there were 12 nonhub primary airports with no network carrier service and in the first quarter of 2025 there will be 15 not served by the Big 3.

The average number of Big 3 carriers serving nonhub primary airports will have declined marginally from 1.8 of 3 to 1.6 of the Big 3 airlines. The number of hubs served on average is scheduled to decrease only marginally from 2.6 to 2.4 hubs. In the first quarter of 2025, the Big 3 airlines are expected to increase their departures per day at the nonhub primary airports from an average of 6.1 to 6.9. The network airlines are scheduled to fly airplanes with 8 more seats on average in 1q’2025. Finally, the average number of seats per day by the network airlines is also scheduled to increase by more than 100 seats per day.

This is hardly a story of smaller market airport abandonment.



The network result is that the nonhub primary airports in a post Pandemic world are now witnessing improved air service. It is network airlines that are the lifeline of small market economies. Economies need access to markets around the country and around the world. Service to leisure destinations is a product designed for the local passenger and not necessarily designed for local businesses.

Losing network carrier service is difficult for any smaller market. The chart above speaks to averages across the group of nonhub primary airports. There will be some that do not have the same story to tell. But the data shows that only 2 airports of the nearly 160 nonhub primary airports have lost network carrier service since 1q’2022.

GOVERNMENT POLICY AND PILOT LABOR INFLUENCE SERVING SMALLER MARKETS

There is little appreciation by many stakeholders of the amount of influence organized pilot labor wields on the regional sector of the U.S. airline industry. Scope clauses are neither designed to permit airlines to maximize the economic generation of a respective airline network nor their assets. Rather, scope clauses are about governing flying by artificial means, with either positive economic or non-economic outcomes possible, real or imagined, that might cause a mainline pilot to lose his/her job.

Smaller markets have been negatively impacted by scope clauses over the entirety of the deregulated period. That continues today and will on an ongoing basis as the price of pilot labor cannot be justified for flying aircraft that are 1/3 of the number of seats that are flown at the mainline airlines.

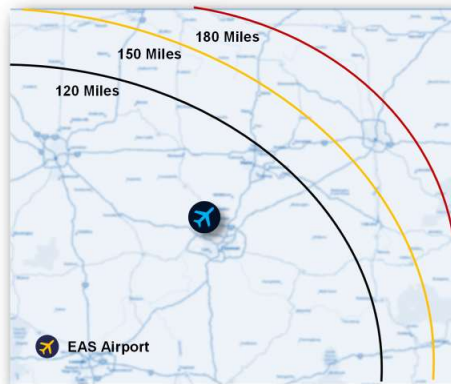
If the Justice Department's Antitrust Division and/or the Department of Transportation (DOT) are truly seeking a broad public inquiry into the state of competition in air travel it should be expanded to include organized labor and the U.S. government itself. If the agencies truly want to better understand how consolidation, anticompetitive conduct and a wide range of issues might affect the availability and affordability of air travel options then all stakeholder involvement needs to be considered.

Whether by statute or regulation, regional airlines, network airlines, smaller market airports and their representatives face a very real conundrum. Given the scarcity of qualified pilots as well as the fact that a small airframe right sized for smaller market flying is not economically feasible, a question that needs asking but no one will ask: Do I (airline) fulfill my Essential Air Service (EAS) obligations to the government OR break the terms of my contracted flying with the network airlines?

Arguably the largest impediment to a system operating at maximum efficiency is the government itself with pilot labor running a close second. In a market system, capacity would be deployed to satisfy the maximum level of demand and not to satisfy some legislative promise made 45 years ago that was supposed to last 10 years.

In an analysis performed by the Swelbar-Zhong Consultancy in February 2022, it identified 64 EAS-designated airports among 107 in the contiguous 48 states that are within 120 miles of a larger airport (large, medium, and/or small hub airport). More than 50% of EAS funds for these 107 airports were used to subsidize service that were designated to qualify for government subsidy 15 years before President Eisenhower's interstate highway system was completed.

EAS Service to Airports Located **Less Than 120 miles** From A Large, Medium or Small Hub Airport



81 average mileage to closest large, medium, or small hub airport

1:42 average drive time to closest large, medium, or small hub airport

\$80.21 average subsidy paid per hour to keep each passenger from driving



64 EAS airports in this group



53 or **83%** receive service destined for a network carrier connecting hub



35 are served with Aircraft with less than 44 seats



1,397,354 passengers carried in 2021



\$136.49 per passenger subsidy



\$61.73 per seat subsidy



45.2% passenger load factor



Denotes a large, medium or small hub airport.
Note: Analysis in February 2022.

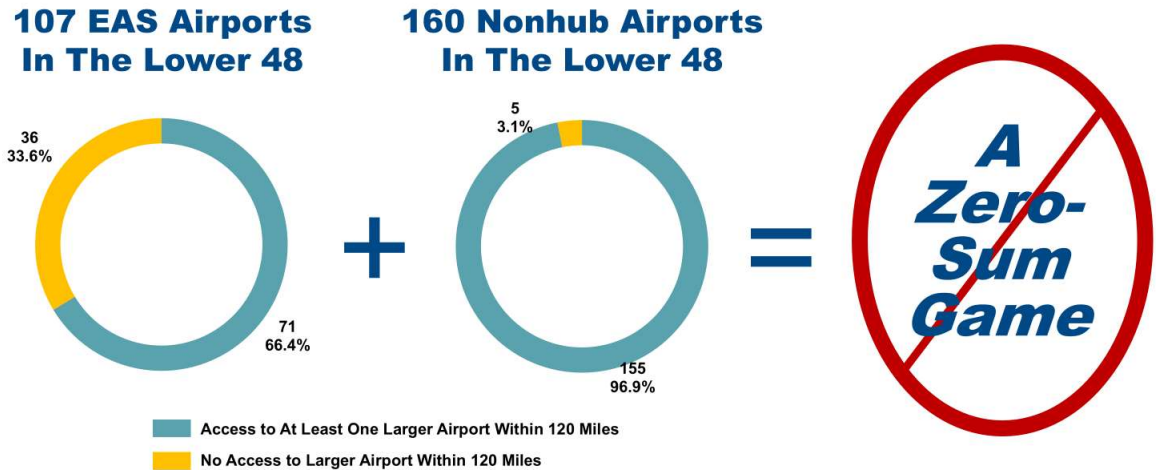


Furthermore, the government continues to subsidize airports that compete with larger airports within 120 miles. The airports that are not government subsidized are further hampered to address the government induced competitive disadvantage because they cannot use their own funds to attract a competitive air service. Today Duluth struggles to grow its air service, yet the EAS-designated airports see their service quality improved by airlines using larger, and sometimes 2-class, aircraft to fulfill the EAS obligation.



THE GOVERNMENT HAS CREATED A ZERO-SUM AIR SERVICE GAME WHERE THE STRONGEST MARKETS ARE NOT ABLE TO MAXIMIZE THEIR ECONOMIC GENERATION FACILITATED BY AIR SERVICE.

There Are Not Enough Pilots and/or Airplanes to Fulfill Obligations to Fly EAS **AND** Contracts with network airlines.



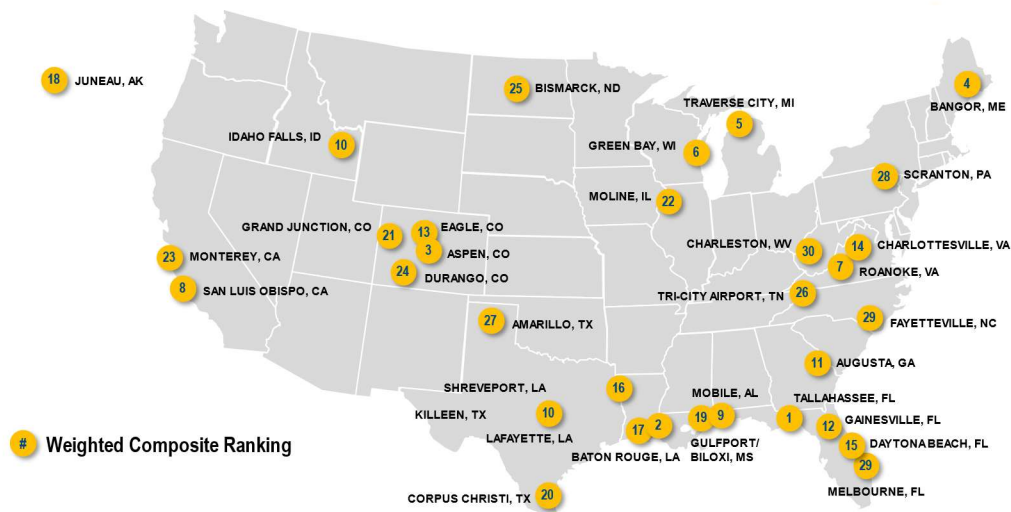
An interesting takeaway from this request from DOT and DOJ is that these very agencies viewed using the highway to access the air transportation grid as innovative in the early 1990's. Southwest Airlines used/uses low prices at most airports it serves directly that are within a reasonable driving distance from one or more local airports to poach traffic.

The strategy was wildly successful in its earlier years. In fact, it was so successful that the U.S. Department of Transportation studied the competitive strategy that Southwest employed dubbing its impact on markets as having the **"Southwest Effect"**.

Simply, and as a matter of fact when the study was done, the highway has been and remains the first mode utilized to access the air transportation system for many air travel consumers. Why is it not OK today? Constrained assets should be used to serve the most economically deserving markets and not those existing because of an outdated law. Shortages expose duplicity.

In this zero-sum game created by an EAS program taking assets away from other flying, the map below points to deserving markets that are hampered in attracting more air service.

These Nonhub Airports Could Likely Attract More Service... ... If not for a lack of aircraft or pilots or subsidy??



DEBUNKING SOME MYTHS

1. **Some academics and consumer advocates postulate that a better way to serve these smaller markets is to return to regulation or nationalize the airline industry.**

One can argue that today there is already overregulation that poses mounting threats to this service. This paper, in its response, makes clear the sharply rising costs facing the regional industry from labor, maintenance materials, higher interest rates making aircraft acquisition even more expensive to name a few costs centers all the while fares and revenue are not increasing at the same rates.

The 1500-hour rule, new flight time/duty time/rest provisions, state wage-hour rules that were not intended for highly mobile workers like pilots and flight attendants only exacerbate the cost of providing smaller market commercial air service to the very system of smaller market airports believing that they are entitled to receive commercial service.

For airports, the emotions are many. Memories are long. Expectations are too high to assume that service to all small communities will continue in perpetuity as the deregulators promised. A fair question to ask is have the U.S.'s Big 3 or 4 hub-and-spoke airlines-- American, Delta, and United - and Alaska that operates a regional network too reached point where they can no longer be everything to every airport as costs increasingly exceed benefits.

For many, large aircraft with fewer frequencies is the best case in a post-Pandemic world. Making things even more expensive by re-regulating or nationalizing the airline industry will

only make things more expensive and accelerate the scenario painted above that might further disenfranchise smaller markets.

2. The government, and many others doing studies on airline market power at hub cities, suggest that total seats offered by the airline offering connections as a percentage of the total seats flown by all airlines at the hub airport constitutes outsized market power.

Making a generalized point without recognizing that not all seats are created equal makes for a flawed analysis. Undoubtedly, an airline calling an airport a connecting hub has many benefits to attract flyers in the metro area. But as the ULCC sector increasingly adds service to many hubs like Dallas/Ft. Worth, Atlanta, and numerous other large markets, understanding seat share is even more important.

Hubs are designed to gather passengers and disperse passengers to their desired destinations multiple times per day most efficiently. Therefore, the airline operating the hub operates significantly more seats than even the large metro area could possibly support on its own. For the hub carrier, it has seats to sell to the local passenger traveling from the hub city to X city on a nonstop flight. Yet many of the total seats on the same airplane are ultimately filled by passengers coming from a different metro area destined for the same X city.

The Myth of Hub Power Should Not Be Measured By Total Share Only

	Share of Total Airport Seats			Share of Airline Seats for Connecting Passengers			Share of Airline Seats for Local Passengers	
	2019	YE 2q'2024		2019	YE 2q'2024		2019	YE 2q'2024
AA CLT	89.8%	86.9%		68.1%	67.0%		21.7%	20.0%
AA DCA	50.4%	53.6%		12.6%	17.4%		37.9%	36.2%
AA DFW	86.5%	83.3%		54.7%	55.2%		31.8%	28.1%
AA MIA	80.3%	62.7%		32.9%	30.2%		47.4%	32.5%
AA ORD	40.2%	33.0%		18.9%	15.9%		21.3%	17.2%
AA PHL	67.8%	59.9%		30.1%	20.8%		37.7%	39.1%
DL ATL	78.2%	74.5%		55.7%	51.4%		22.4%	23.2%
DL DTW	72.8%	70.2%		39.4%	31.9%		33.5%	38.3%
DL MSP	70.2%	68.5%		37.2%	33.0%		32.9%	35.5%
DL SLC	70.9%	67.9%		38.1%	33.6%		32.9%	34.3%
UA DEN	44.5%	44.3%		25.4%	26.3%		19.2%	18.0%
UA EWR	68.3%	70.6%		16.5%	15.8%		51.8%	54.8%
UA IAD	79.7%	82.4%		38.3%	34.9%		41.3%	47.5%
UA IAH	79.2%	73.3%		45.4%	38.0%		33.8%	35.3%
UA ORD	46.8%	50.9%		25.1%	24.5%		21.8%	26.4%
UA SFO	49.9%	50.6%		19.5%	17.7%		30.4%	32.8%



It is often said that American controls 86.9% of seats at its Charlotte hub. Yet 2/3 of the seats it flies from Charlotte are filled with passengers connecting from one market area to another. Based on the number of connecting passengers, American has only 20% of the 86.9% available seats to sell to the local Charlotte customer. Nearly 3 times the number of

seats is used for passengers that connect at Charlotte to/from the many airports served by American. The same analysis can be done for Delta at Atlanta or United at Washington – IAD.

In keeping with the focus of this response on the regional airline sector, American, through its regional network, connects millions of passengers from smaller markets every year. Making seats available at connecting hubs confers consumer benefits to connecting and local passengers. The share of total airline seats by one airline or another is not the best metric to use to measure market power.

IT IS ECONOMICS, NOT EMOTION, THAT INFLUENCE SMALLER MARKET AIR SERVICE

The airline space is complicated by the number of stakeholders. Airlines are commercially oriented firms that are regulated by non-commercial minded government appointments all the while there are shareholders in the room to satisfy.

Rather than deflecting most consumer issues onto the network airlines themselves, all stakeholders in the commercial air transportation ecosystem are both part of the problem and can/should be part of the solution. Despite cost headwinds throughout the deregulated period, industry generally, and the network airlines specifically have delivered consumer benefits to markets large and small.

There will be some tough decisions to make when it comes to all the smaller markets being served. Economics will drive the rational side of the discussion while emotion will try to prevail. Emotional fixes can only result in short-term fixes when making the system the very best it can be and should be every stakeholder's goal.

Government inaction is partially at fault. In addition to the many issues raised in this paper, imagine if the government's deregulation promises of maintaining an enviable Air Traffic Control System were kept. The industry might increase service to smaller markets utilizing the same number of aircraft and pilots.

Organized pilot labor contributes despite suggesting it is willing to listen to ways to maximize service to smaller markets if no stakeholder recommends a modification to anything they might perceive as a safety issue.

Then it is macroeconomic and geopolitical events that impact industry and network development in numerous ways. This industry has been incredibly innovative in keeping as many small and large points on airline maps as commercially feasible. Post-pandemic, many trends that were headwinds to smaller community air service were accelerated.

From an economic perspective, there is little choice but to match today's less frequency with larger aircraft strategy at markets of all sizes versus the historic strategy of maintaining multiple frequencies per day with small aircraft. Today's strategy of less frequency with larger aircraft offers the additional benefit of providing air travel consumers with the best available onboard products and more choice to connect to the air transportation than at any time in a post-deregulated market.

Appendix I – DEFINITIONS

FAA Definitions Of Airports By Hub Size Percent Of 2023 Passenger Enplanements By Hub Size

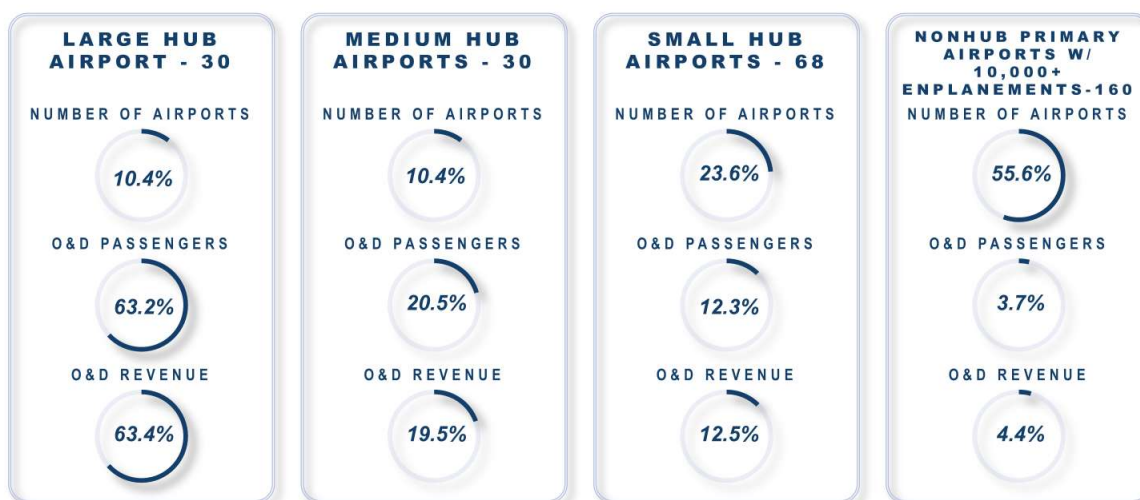


Note: Include airports in the lower 48 states.
Source: U.S. DOT T-100 database 2023.



Share of Domestic O&D Traffic and Revenue by Airport Size

-- Serving the entire Nonhub airport sector is no longer viable.



Note: Include airports in the lower 48 states.
Source: U.S. DOT T-100 database 2023, DB1B database YE2q 2024.





SWELBAR•ZHONG
CONSULTANCY

Research Lab — Swelbar-Zhong Consultancy
(Swelbar-ZhongAir.com/Research-Lab)

William S. Swelbar

Swelbar@Swelbar-ZhongAir.com

Albert Zhong

Zhong@Swelbar-ZhongAir.com

C +1-703-625-1130

www.Swelbar-ZhongAir.com