An FAA Forecast, Actual Ops Trends, and do We Need More ATCs?

Overview:

Recent news stories have pushed the idea that FAA's air traffic control facilities are dangerously understaffed. These stories relied heavily on

stories relied heavily on anonymous sources from NATCA, the ATC union. Data and analysis are needed, to either substantiate or debunk the staffing shortage concern.

This Analysis compiles that data and shows there is no significant staffing shortage. It also shines a light on the fact that U.S. commercial aviation has been declining for nearly 25 years.

Resources:

In 2001, FAA issued a 195-page '<u>Airport Capacity Benchmark</u> <u>Report</u>'. A table at page 7 lists the 31 busiest commercial airports, serving airlines. The table includes a column that defines operational growth predictions for each airport, i.e. how each airport is expected to change from 2000 to 2010.

FAA also publishes operations per year at each towered airport, at the ATADS/OPSNET online database.

			Capacity	Table 2 Benchmark	Summary	17		
Airport (ranked by delay in 2000)		Capa	Projected	Delays per				
	New R (if pla	unway nned)	New Tec	hnology*	New Run New Tecl	way Plus nnology**	Growth to 2010 (percent)	1000 operations (2000)
	Optimum	Reduced	Optimum	Reduced	Optimum	Reduced		
LGA	—	-	10	3	10	3	17	155.9
EWR	1. 		10	/	10	1	20	81.2
ORD		·	6	12	6	12	18	63.3
SFU	_	_	0	3	0	3	18	50.8
BOS	U	0	4	4	4	4	22	47.5
IEK			2	2	2	2	18	29.9
	31	27	5	6	37	34	28	30.0
	35	37	5	3	42	41	34	28.1
DEW	3	17	1	3	4	21	21	23.8
PHX	36	60	3	0	40	60	31	22.0
LAX	_	_	11	4	11	4	25	21.9
IAD	46	54	2	4	49	60	20	19.5
STL	14	84	11	3	27	89	30	18.2
DTW	25	17	5	6	31	24	31	17.6
CVG	26	26	2	1	28	27	40	15.4
MSP	29	26	4	4	34	31	32	12.7
MIA	10	20	12	6	24	27	23	11.3
SEA	52	46	3	4	57	51	17	10.4
LAS	2 <u></u>		0	12	0	12	30	8.0
DCA	(s . 50)	() , 10	4	8	4	8	4	8.0
BWI			0	0	0	0	27	6.9
MCO	23	34	5	3	28	38	42	6.3
CLT	25	15	4	8	30	24	15	6.0
PIT	<u> </u>	_	3	1	3	1	15	3.8
SAN	—	_	2	3	2	3	33	2.5
DEN	18	4	6	13	25	17	23	2.2
SLC	2 	-	5	4	5	4	34	2.0
TPA		_	0	19	0	19	18	1.6
MEM			3	4	3	4	30	0.4
HNL	11. <u></u>		Z	1	2	1	25	0.0

The Tables that follow were created compiling data from both FAA's 2010 Forecast (in the 2001 Benchmark Report) and the actual annual ops totals at towered airports (from FAA's online ATADS database).

Analysis #1: FAA's 2010 Forecast

The Table at right compiles FAA's 2010 forecast for the 31 airports, along with actual FAA ATADS/OPSNET total ops figures for the years 2000, 2010, 2019, and 2022. The 31 airports are ranked by the 2010 forecast operations total (yellow header), from busiest to slowest (Atlanta at top to San Diego at bottom). The changes were then calculated, to identify growth or decline trends from one data year to the next.

A color-scale is applied to aid in reading the trends. The deeper the green, the more the growth; the deeper the red, the more the decline. Notice the 'green' preponderance of optimistic growth in the 2000-2010 forecast, versus the preponderance of 'red' in the

airport	2000 Actual	2010 Actual	2019 Actual	2022 Actual	2010 vs 2000 (Actual Change)	2019 vs 2000 (Actual Change)	2022 vs 2000 (Actual Change)	2010 forecast	2000-2010 forecast growth	2022 actual vs 2010 forecast
ATL	913,449	950,119	904,301	724,145	4%	-1%	-21%	1,169,215	28%	-38%
ORD	908,977	882,617	919,704	711,561	-3%	1%	-22%	1,072,593	18%	-34%
DFW	865,777	652,258	720,007	656,676	-25%	-17%	-24%	1,047,590	21%	-37%
LAX	783,684	575,835	691,257	556,913	-27%	-12%	-29%	979,605	25%	-43%
PHX	638,757	449,351	438,891	418,856	-30%	-31%	-34%	836,772	31%	-50%
DTW	554,580	452,616	396,909	284,606	-18%	-28%	-49%	726,500	31%	-61%
MSP	522,253	435,583	406,073	310,235	-17%	-22%	-41%	689,374	32%	-55%
LAS	521,300	505,604	554,027	581,116	-3%	6%	11%	677,690	30%	-14%
CVG	477,844	177,610	162,816	145,667	-63%	-66%	-70%	668,982	40%	-78%
IAH	490,568	531,983	478,070	400,965	8%	-3%	-18%	657,361	34%	-39%
DEN	528,604	635,458	640,098	615,734	20%	21%	16%	650,183	23%	-5%
MIA	516,545	376,208	416,773	458,478	-27%	-19%	-11%	635,350	23%	-28%
STL	484,224	186,332	193,939	158,517	-62%	-60%	-67%	629,491	30%	-75%
PHL	483,567	460,779	390,321	284,141	-5%	-19%	-41%	594,787	23%	-52%
IAD	479,931	371,801	308,159	272,889	-23%	-36%	-43%	575,917	20%	-53%
EWR	457,182	408,821	449,543	408,607	-11%	-2%	-11%	548,618	20%	-26%
BOS	508,283	368,851	432,853	384,294	-27%	-15%	-24%	538,780	6%	-29%
CLT	460,370	529,107	579,147	499,037	15%	26%	8%	529,426	15%	-6%
SEA	445,677	313,954	450,487	401,351	-30%	1%	-10%	521,442	17%	-23%
MCO	366,278	314,763	366,169	364,907	-14%	0%	0%	520,115	42%	-30%
PIT	448,181	144,563	148,119	121,688	-68%	-67%	-73%	515,408	15%	-76%
SFO	430,554	388,758	458,502	355,002	-10%	6%	-18%	508,054	18%	-30%
MEM	386,335	336,017	229,451	213,418	-13%	-41%	-45%	502,236	30%	-58%
SLC	366,933	365,579	344,765	321,941	0%	-6%	-12%	491,690	34%	-35%
LGA	392,047	367,346	374,539	356,081	-6%	-4%	-9%	458,695	17%	-22%
HNL	345,496	265,069	326,837	316,732	-23%	-5%	-8%	431,870	25%	-27%
JFK	358,951	404,174	463,198	453,396	13%	29%	26%	423,562	18%	7%
BWI	315,348	276,457	262,794	219,276	-12%	-17%	-30%	400,492	27%	-45%
DCA	342,790	274,137	298,310	296,999	-20%	-13%	-13%	356,502	4%	-17%
TPA	278,632	195,705	217,502	212,995	-30%	-22%	-24%	328,786	18%	-35%
SAN	207,916	190,137	231,354	210,263	-9%	11%	1%	276,528	33%	-24%
Total(31)	15,281,033	12,787,592	13,254,915	11,716,486	-16%	-13%	-23%	18,963,614	24%	-38%

actual 2022 ops counts versus the forecast. The forecast missed wildly. Also, notice the trend toward more red across the three 'actual change' columns' in the middle area of the Table. The line at the bottom of these columns notes 2000 ops had declined 16% by 2010, recovered only slightly to a 13% decline by 2019, then moved downward again, to a 23% decline at the end of 2022. Accelerating decline is presented in the data for DTW, MSP, PHL, and other airports.

Analysis #2: Trends in Tower Operations, 1991 to 2022

In this second Table, ops figures for 1991 were compiled, with the addition of the four other 'OEP-35'¹ airports. This enables us to see that the 1990's was a decade of strong aviation operational growth, for comparison with the decline in the decades since. Key points revealed in this analysis include:

- From 1991 to 2000, OEP-35 total ops increased 23%. All of this gain (and more) was lost in the following decades.
- The attacks on 9/11/2001 triggered steep declines, but by 2010 we had recovered to the point where 2010 ops were 2% more than 1991, but still a steep decline, at 17% below 2000 ops.
- The economic declines of 2008 and 2011 also dampened aviation ops, but slow growth gradually led to a peak at the end of the decade; 2019 total ops were 6% higher than 1991, but 13% less than 2000 ops. (compare Table-1 with Table-2)
- The pandemic severely depressed air travel, for obvious health reasons; not just that people were exposed to the contagion during

					2022 vs
	2000	2010	2019	2022	2019
OEP-35,	Actual	Actual	Actual	Actual	(Actual
airport:	Ops	Ops	Ops	Ops	Change)
ATL	913,449	950,119	904,301	724,145	-20%
ORD	908,977	882,617	919,704	711,561	-23%
DFW	865,777	652,258	720,007	656,676	-9%
DEN	528,604	635,458	640,098	615,734	-4%
LAS	521,300	505,604	554,027	581,116	5%
LAX	783,684	575,835	691,257	556,913	-19%
CLT	460,370	529,107	579,147	499,037	-14%
MIA	516,545	376,208	416,773	458,478	10%
JFK	358,951	404,174	463,198	453,396	-2%
PHX	638,757	449,351	438,891	418,856	-5%
EWR	457,182	408,821	449,543	408,607	-9%
SEA	445,677	313,954	450,487	401,351	-11%
IAH	490,568	531,983	478,070	400,965	-16%
BOS	508,283	368,851	432,853	384,294	-11%
MCO	366,278	314,763	366,169	364,907	0%
LGA	392,047	367,346	374,539	356,081	-5%
SFO	430,554	388,758	458,502	355,002	-23%
SLC	366,933	365,579	344,765	321,941	-7%
HNL	345,496	265,069	326,837	316,732	-3%
MSP	522,253	435,583	406,073	310,235	-24%
DCA	342,790	274,137	298,310	296,999	0%
FLL	292,462	272,293	331,455	286,181	-14%
DTW	554,580	452,616	396,909	284,606	-28%
PHL	483,567	460,779	390,321	284,141	-27%
IAD	479,931	371,801	308,159	272,889	-11%
BWI	315,348	276,457	262,794	219,276	-17%
MDW	298,437	245,533	232,084	214,427	-8%
MEM	386,335	336,017	229,451	213,418	-7%
TPA	278,632	195,705	217,502	212,995	-2%
SAN	207,916	190,137	231,354	210,263	-9%
PDX	317,477	223,068	238,384	176,507	-26%
STL	484,224	186,332	193,939	158,517	-18%
CVG	477,844	177,610	162,816	145,667	-11%
PIT	448,181	144,563	148,119	121,688	-18%
CLE	331,899	194,005	126,999	101,314	-20%
OEP-35	16,521,308	13,722,491	14,183,837	12,494,915	-12%

OEP-35, airport:	1991 Actual Ops	2000 Actual Ops	2010 Actual Ops	2019 Actual Ops	2022 Actual Ops	2000 vs 1991 (Actual Change)	2010 vs 1991 (Actual Change)	2019 vs 1991 (Actual Change)	2022 vs 1991 (Actual Change)
JFK	298,161	358,951	404,174	463,198	453,396	20%	36%	55%	52%
LAS	398,246	521,300	505,604	554,027	581,116	31%	27%	39%	46%
FLL	203,318	292,462	272,293	331,455	286,181	44%	34%	63%	41%
MCO	272,755	366,278	314,763	366,169	364,907	34%	15%	34%	34%
IAH	310,597	490,568	531,983	478,070	400,965	58%	71%	54%	29%
DEN	488,162	528,604	635,458	640,098	615,734	8%	30%	31%	26%
ATL	589,470	913,449	950,119	904,301	724,145	55%	61%	53%	23%
SEA	338,607	445,677	313,954	450,487	401,351	32%	-7%	33%	19%
CLT	446,415	460,370	529,107	579,147	499,037	3%	19%	30%	12%
LGA	329,571	392,047	367,346	374,539	356,081	19%	11%	14%	8%
EWR	380,119	457,182	408,821	449,543	408,607	20%	8%	18%	7%
SLC	301,664	366,933	365,579	344,765	321,941	22%	21%	14%	7%
SAN	206,487	207,916	190,137	231,354	210,263	1%	-8%	12%	2%
DCA	299,823	342,790	274,137	298,310	296,999	14%	-9%	-1%	-1%
IAD	274,277	479,931	371,801	308,159	272,889	75%	36%	12%	-1%
MIA	475,285	516,545	376,208	416,773	458,478	9%	-21%	-12%	-4%
TPA	224,085	278,632	195,705	217,502	212,995	24%	-13%	-3%	-5%
DFW	736,156	865,777	652,258	720,007	656,676	18%	-11%	-2%	-11%
BOS	441,756	508,283	368,851	432,853	384,294	15%	-17%	-2%	-13%
ORD	813,473	908,977	882,617	919,704	711,561	12%	8%	13%	-13%
LAX	657,348	783,684	575,835	691,257	556,913	19%	-12%	5%	-15%
PHX	496,243	638,757	449,351	438,891	418,856	29%	-9%	-12%	-16%
SFO	429,213	430,554	388,758	458,502	355,002	0%	-9%	7%	-17%
MSP	385,476	522,253	435,583	406,073	310,235	35%	13%	5%	-20%
BWI	275,903	315,348	276,457	262,794	219,276	14%	0%	-5%	-21%
HNL	403,570	345,496	265,069	326,837	316,732	-14%	-34%	-19%	-22%
MDW	276,147	298,437	245,533	232,084	214,427	8%	-11%	-16%	-22%
PHL	371,506	483,567	460,779	390,321	284,141	30%	24%	5%	-24%
DTW	396,278	554,580	452,616	396,909	284,606	40%	14%	0%	-28%
PDX	264,300	317,477	223,068	238,384	176,507	20%	-16%	-10%	-33%
MEM	325,872	386,335	336,017	229,451	213,418	19%	3%	-30%	-35%
CVG	298,044	477,844	177,610	162,816	145,667	60%	-40%	-45%	-51%
CLE	234,356	331,899	194,005	126,999	101,314	42%	-17%	-46%	-57%
STL	413,223	484,224	186,332	193,939	158,517	17%	-55%	-53%	-62%
PIT	387,092	448,181	144,563	148,119	121,688	16%	-63%	-62%	-69%
OEP-35	13,442,998	16,521,308	13,722,491	14,183,837	12,494,915	23%	2%	6%	-7%

crowding in airports and on aircraft, but also the fact that aviation served as an efficient vehicle for rapidly transporting new variants across the globe. We have generally recovered. This year, the industry boasts of a recovery but, in fact, the OEP-35 airports remain in decline, with 2022 ops still 12% below 2019 ops.

- Interestingly, the world's two busiest airports are among the most impacted; ATL and ORD saw declines of 20% and 23%, respectively, versus ops in 2019. Possibly, passenger health risks, increased by flying through hub airports, are dampening the profit potential of superhubs.
- All of the above significant events have created opportunities for aviation change by corporations and regulators. Many more former hubs are being downscaled or even eliminated, and more operations are being concentrated into a handful of the largest airports. While the overall trend from 2019 to 2022 is a strong decline, there are a few outliers, and they reflect airline hubbing decisions.
- Only two of the 35 airports saw growth from 2019 to 2022: Miami and Las Vegas. Data for MIA shows a 10% increase; however, the Miami regional market is flat overall (the MIA gains are fully offset by the declines at nearby FLL (Fort Lauderdale).
- Similarly, from a regional market perspective, Chicago (ORD and MDW) declined 20% from 2019 to 2022; the DC area (BWI, DCA, & IAD) declined 9% from 2019 to 2022; and the NYC market (EWR, JFK, & LGA) declined 5% from 2019 to 2022.

¹ OEP stands for 'Operational Evolution Partnership'. Created in 2001 as 'Operational Evolution <u>Plan</u>', OEP later focused on 'partnering' the transition to NextGen. .'OEP-35' is a list of 35 major airports and was FAA's primary metric for system operations, until recently.

- Five airports were removed from the OEP-35 list when FAA transitioned, and began using the Core-30 list, to track and report industry performance. Those airports include: STL (St. Louis, former American hub, 62% decline since 1991); PIT (Pittsburgh, former American hub, 69% decline since 1991); CLE (Cleveland, United hub, 57% decline since 1991); PDX (Portland, 33% decline since 1991); and CVG (Cincinnati, former Delta hub, 51% decline since 1991).
- Going forward, major airports to watch, for their ongoing trend towards significant downsizing, include: DTW (Detroit, Delta hub, 49% decline since 2000); MEM (Memphis, 45% decline since 2000); MSP (Minneapolis, Delta hub, 41% decline since 2000); PHL (Philadelphia, 41% decline since 2000); PHX (Phoenix, hub for American & Southwest, 34% decline since 2000); BWI (Baltimore, Southwest hub, 30% decline since 2000); and MDW (Chicago, Southwest hub, 28% decline since 2000).

Analysis #3: Is the ATC Shortage Real, or Just a Push for More Money?

The Table to the right adds one more column, with tower annual ops figures for 2007. The important columns are on the right. Airports are sorted by *actual change in total annual operations*, from 2007 to 2022 (yellow header). The column on the right edge shows the *actual on-board staffing in 2022*, versus the high target staffing in 2007.

Look at the bottom row, marked CLE (Cleveland). The -11% indicates ATC staffing in late 2022 is 11% below the staffing high target for

2007; but, the adjacent column shows CLE ops declined 59%, from 2007 to 2022 So, for CLE, there is a clear staffing surplus.

Take a look at the dark green showing SAN has staffing 44% higher in 2022 versus the 2007 high target. Another clearly overstaffed facility.

The majority of the OEP-35 airports have staffing well in excess of the high staffing target needed 16years ago, when (in most cases) traffic was significantly heavier.

The only three airports, of the 35, that stand out as needing more staffing are:

- MIA: ops increased 19% and staffing is 5% below the 2007 high target.
- SEA: ops increased 16% and staffing is 14% below the 2007 high target.
- LAS: ops decreased 6% but staffing is 19% below the 2007 high target.

OEP35 airport	1991 Actual Ops	2000 Actual Ops	2007 Actual Ops	2010 Actual Ops	2019 Actual Ops	2022 Actual Ops	2022 vs 2007 (Ops, Actual Change)	AOB-22 vs high target 2007
MIA	475,285	516,545	386,367	376,208	416,773	458,478	19%	-5%
SEA	338,607	445,677	347,046	313,954	450,487	401,351	16%	-14%
DCA	299,823	342,790	279,488	274,137	298,310	296,999	6%	4%
HNL	403,570	345,496	307,112	265,069	326,837	316,732	3%	
DEN	488,162	528,604	619,941	635,458	640,098	615,734	-1%	-5%
JFK	298,161	358,951	456,835	404,174	463,198	453,396	-1%	9%
MCO	272,755	366,278	367,860	314,763	366,169	364,907	-1%	
DFW	736,156	865,777	686,711	652,258	720,007	656,676	-4%	-2%
BOS	441,756	508,283	402,821	368,851	432,853	384,294	-5%	-6%
CLT	446,415	460,370	525,943	529,107	579,147	499,037	-5%	9%
LAS	398,246	521,300	619,287	505,604	554,027	581,116	-6%	-19%
SFO	429,213	430,554	379,568	388,758	458,502	355,002	-6%	3%
FLL	203,318	292,462	307,952	272,293	331,455	286,181	-7%	8%
EWR	380,119	457,182	441,908	408,821	449,543	408,607	-8%	0%
LGA	329,571	392,047	397,280	367,346	374,539	356,081	-10%	12%
SAN	206,487	207,916	237,574	190,137	231,354	210,263	-11%	44%
TPA	224,085	278,632	258,745	195,705	217,502	212,995	-18%	-19%
LAX	657,348	783,684	680,954	575,835	691,257	556,913	-18%	-2%
PHX	496,243	638,757	539,211	449,351	438,891	418,856	-22%	-28%
ORD	813,473	908,977	926,973	882,617	919,704	711,561	-23%	5%
SLC	301,664	366,933	420,996	365,579	344,765	321,941	-24%	-6%
BWI	275,903	315,348	296,639	276,457	262,794	219,276	-26%	-15%
ATL	589,470	913,449	991,627	950,119	904,301	724,145	-27%	-6%
MDW	276,147	298,437	304,657	245,533	232,084	214,427	-30%	-20%
MSP	385,476	522,253	453,566	435,583	406,073	310,235	-32%	-3%
PDX	264,300	317,477	264,518	223,068	238,384	176,507	-33%	18%
IAH	310,597	490,568	603,641	531,983	478,070	400,965	-34%	-13%
IAD	274,277	479,931	419,127	371,801	308,159	272,889	-35%	-14%
STL	413,223	484,224	256,928	186,332	193,939	158,517	-38%	-13%
DTW	396,278	554,580	467,755	452,616	396,909	284,606	-39%	3%
PIT	387,092	448,181	212,998	144,563	148,119	121,688	-43%	-18%
PHL	371,506	483,567	499,683	460,779	390,321	284,141	-43%	-1%
MEM	325,872	386,335	376,528	336,017	229,451	213,418	-43%	
CVG	298,044	477,844	328,261	177,610	162,816	145,667	-56%	
CLE	234,356	331,899	245,170	194,005	126,999	101,314	-59%	-11%
OEP-35	13,442,998	16,521,308	15,311,670	13,722,491	14, 183, 837	12,494,915	-18%	
		23%	-7%	-10%	3%	-12%		

And what about the total figures? Notice the color-

scaled data on the bottom line. For the OEP-35 airports, ops increased 23% from 1991 to 2000, decreased 7% from 2000 to 2007, decreased 10% from 2007 to 2010, increased 3% from 2010 to 2019, and decreased 12% from 2019 to 2022. Ops are shrinking, not growing.

Another factor to consider is the huge investment in new technologies and deployment of NextGen. These technologies are designed to automate communications and control decisions, which in theory makes each controller far more productive, able to handle more flights than with earlier technologies. Is it not reasonable to expect that, between lower ops and higher automation, we should expect more productivity from ATC today? So, although

staffing in late 2022 may be 9% below the high target for 2007, that should be no problem when ops declined 18% in the same timeframe.

Some Background on OEP & NextGen:

In the past two decades, the most substantial aviation impacts are being caused by intensified repetitive flights, by either GA (general aviation) operators or commercial airline operators. While GA impacts have tended to be related to

VERSION 1.0

NEXTGEN BUSINESS CASE

EXECUTIVE SUMMARY

The Aviation Industry is Critical to the U.S. Economy: The aviation industry contributes approximately \$640 billion to the U.S. economy—or 5.4 percent of the U.S. gross domestic produce (GDP)— and accounts for more than 9 million jobs¹ and about \$314 billion in wages.² The industry is one of the strongest contributors to the U.S. trade balance, as represented by net aerospace exports that totaled more than \$36 billion in 2005. Aerospace is also the third largest U.S. export category and one of the few in which the U.S. has a trade surplus.³

Air Traffic Control Problems Becoming Acute: The current air traffic system was built on technology that has reached the limits of its ability to handle more traffic. The current system is based on a foundation of technologies developed as far back as the 1940s and 1950s, and many of these systems have far exceeded their original life expectancy.

Fundamental Change in Air Traffic Control is Needed: While the current national airspace system (NAS) is safe and resilient, demand is now exceeding capacity in several areas of the country and forecasts indicate a doubling to tripling of demand by 2025. The Federal Aviation Administration (FAA) has implemented a spectrum of technology upgrades and procedural and airspace changes to maximize the use of available capacity. However, modernization programs that are primarily intended for "technology refresh" have reached the point of diminishing returns. A continued proliferation of patchwork upgrades to an already fragmented system simply cannot accommodate the exponential growth in air travel expected over the next 20 years—nor can it accommodate the evolving safety, security, environmental, and national defense objectives. For example, congestion already exacts a toll of \$9.4 billion per year due to passenger delays⁴, and that number could grow to \$20 billion by 2025. For airlines, we estimate a \$2 billion profit loss—funds that could otherwise be used for future fleet modernization and expansion.

A complete transformation of our nation's air transportation system is needed to facilitate the expected growth of the aviation transportation market and accommodate emerging industry trends and business models that are so vital to the U.S. economy. The Next Generation Air Transportation System (NextGen) will establish a scalable, flexible air transportation system that can adapt to market demands and provide an evolutionary pathway to a revolutionary future. The Joint Planning and Development Office (JPDO), created by Congress to coordinate the development of NextGen, has made significant progress in defining NextGen as embodied by: *A page from an FAA 'NextGen Business Case' slideshow, late August 2007*

It's All About the Money

What's really going on here?

In the 2001 and 2006 reports, and again every year since, in statements to Congress, news stories, on and on ... the emphasis is always on capacity, to enable airlines to expand at a few hub airports. The airline hub theory, by design, works best when the hub airline is able to instantaneously move an infinite number of flights in and later out of an airport. It's about capacity and flow rates, to maximize customers 'DIY self-sorting' in crowded airport 'feedlots'. If commercial airport's gates and runways and taxiways can accommodate 70 arrivals per hour in good weather and 50



arrivals per hour in poor weather, but Delta or an airport authority want to bump that to 80 and 60, FAA and other industry players will work to modify procedures or spend billions on expansions, to achieve higher flow rates. And those impacted by the unending drone of noise and air pollutants? They aren't even players in the decisions; they are just collateral damages, unlucky impacted people losing health and quality of life.

When changes are being pursued, it creates opportunities for public sector players to maneuver for their own benefit. The ATC incident history starting in January of this year, and the comments being fed to reporters to create alarmist news stories, show how NATCA and FAA are playing Congress, during the closing months of FAA Reauthorization, campaigning for more money. They want ATC retention and hiring bonuses, more controllers, and more FAA managers ... for a system supposed to be far more efficient while handling a declining volume of annual operations.

As a retired FAA ATC, I am embarrassed for my previous employer and union. They both still spend too much energy feathering their own nests.

flight training expansion, commercial impacts all go back to FAA and industry efforts to increase airport capacity. Thus, they all go back to NextGen.

When the latest version of OEP was announced by FAA Administrator Marion Blakey, in 2006, it was clearly being used as a partnership between FAA and the private sector (mostly airlines, lobbyists, airport authorities, and unions), to build and sell the case for NextGen investment. Our elected representatives in Congress need to recognize that, the whole case for NextGen investment was predicated upon the belief that demand would grow, that more capacity MUST be created to avoid congestion or delay. As they were told then and repeatedly after. Well, that demand was an illusion. Just like the fraudulent implications that ATC technologies were mired in the 1940's. Lots of self-serving spin and propaganda, by FAA and industry.